UNIVERSITY OF GLOUCESTERSHIRE
at CHELTENHAM and GLOUCESTER
Countryside and Community Research Unit

Review of Rural Development Instruments:

DG Agri project 2006-G4-10

Final Report

7 July 2008

The material in this report was developed and written by:

Janet Dwyer (Project Leader and principal author)
Mike Clark, James Kirwan, Carol Kambites, Nick Lewis, Anna Molnarova,
Ken Thomson

- **CCRU, University of Gloucestershire**, UK

Francesco Mantino, Serena Tarangioli, Alessandro Monteleone, Martina Bolli
Patrizia Fagiani, Daniela Storti

- **INEA, Rome**, Italy

Simone Schiller, Karlheinz Knickel,

- **IfLS, Frankfurt**, Germany

Martin Farmer, David Baldock, Justin Bartley, Kaley Hart, Clunie Keenleyside

- **IEEP, London**

Marie Trantinova, Jaroslav Prazan

- **VUZE, Czech republic**

Dylan Bradley

- **AgraCeas Consulting Ltd, Kent**, UK

Acknowledgements

This has been a challenging study to undertake and we are aware that in many respects, more could usefully have been done to address most of the questions within it, given greater resources. However we believe that an important learning process has resulted from our work on the study, and we hope that it has produced some useful ideas and pointers for the future, within a timeframe that is helpful for the ongoing debates and discussions about reform. These include most notably the CAP Healthcheck, and the budget review, which could both be critical for the future of the second pillar. As a team, we remain committed to the goal of fostering a more robust and more effective RD policy within the EU and we hope that this study will make some contribution towards that goal.

We would like to acknowledge the particular support of Peter Wehrheim, Thomas Lesaffer, Christophe Derzelle and Josefine Loriz-Hoffman at the Commission, in helping us to manage the many and complex tasks, during the period of study. We would also like to thank all those other officials, stakeholders and experts who have given their time freely to help us in our investigations over the past year. These include, in particular:

Dr Nicola Crosta, OECD, Dr Nelly Bandara-Jazra, consultant, Dr Lourdes Viladomiu and Dr Gemma Frances, University of Barcelona, Dr Jim Kinsella, University College, Dublin, Laura Nocentini, Oreade-Breche Consultants, Dr Tomas Ratinger, JRC, Dr Jan-Erik Petersen, EEA and Dr Peter Weingarten, Von Thünen Institute / FAL.

Contents

Annexes

1. Database description, measure list, expenditure analysis tables and maps
2. Characteristics and indicators of need maps and data details
2a. Indicators of need – environmental goals
3. Cost-effectiveness – regional level analysis of costs per unit, 2000-13 (Italy and selected other southern MS regions)
4. Delivery systems: case study analyses
5. Instrument fiches
6. References
7. Task protocols, interview schedules

Executive summary

Aim

1. The aim of the study was to review the policy instruments under the framework of the European Agricultural Fund for Rural Development (EAFRD), 2007-13, by:

- reviewing intervention rationales and instruments and their use against the objectives, priorities and key actions in the EU Strategic Guidelines;
- assessing whether and how RD rationales and instruments should be adapted to deliver these more effectively.

Context

2. An explicit, integrated approach to EU rural policy within the CAP began with the creation of the Rural Development (RD) Regulation, 1257/1999. This new 'second pillar' was formed by bringing together a range of existing measures (accompanying measures, farm structure aids, RD measures from structural fund programmes and LEADER). However, the EAFRD Regulation reflects successive policy developments since then. From 2004 (enlargement), new measures offered support to semi-subsistence farms and producer groups in new MS. From 2003 (CAP Mid-Term Review), additional measures for farm advice and quality production were added. For the EAFRD (from 2007), new measures for economic development (micro-businesses, local area strategies), and also in respect of biodiversity, water and forestry, were added. In addition the Regulation created a single, common RD fund and grouped instruments under four 'axes', corresponding to its strategic goals: farming and forestry competitiveness; environmental land management; rural diversification and quality of life; and the LEADER approach. Some former measures were combined, too. It is thus timely to review the scope and appropriateness of the framework, for the future.

Approach

3. The study involved 8 tasks, grouped into 3 themes of analysis:

1) the ***targeting of EU-27 rural development expenditure, 2000-13***, including the development of databases of EU-27 rural area characteristics and 'indicators of need' for RD;
2) consideration of the ***adequacy of the current EAFRD framework***, based upon an evaluation of instruments' cost-effectiveness; the *a priori* development of a typology of RD interventions and catalogue of instruments; an analysis of delivery mechanisms; and assessment of instruments in 'fiches';
3) ***conclusions and recommendations***.

4. In the event, progress in finalising national and/or regional RDPs 2007-13 was delayed, over the study period. Thus, the approach was modified to incorporate more qualitative analysis and the expenditure analysis was made using incomplete figures (July 2007), so 4% of total EAFRD planned expenditure was missing[1].

Theme 1: Targeting of RD expenditure, 2000-13

Results

5. A novel, comparative analysis of RD expenditure across the periods 2000-06 (combining RDR Guidance and Guarantee, SAPARD and transitional instrument) and 2007-13 (available data, July 2007) was undertaken. An increase in total public funding from €88bn to €142bn and in EU allocation from around €58bn to €90bn, (increases of c.40 per cent, once adjusted for inflation), mainly reflects enlargement from 15 to 27 Member States. The totals mask a

[1] Missing data included 10 regions (8 in Spain) and 4 national network plans

much greater increase in EU funding to new MS and a cut in EU funding to the EU-15 (of 1 per cent, in real terms)[2]. Although in most programmes, axis 2 (environmental land management) tends to be the largest spending axis in both periods, generally non-convergence programme areas focus more strongly on these measures while convergence ones tend more to prioritise agricultural restructuring (axis 1).

6. Overall, RD spending patterns have changed between funding periods. 2007-13 programmes plan significantly more spend on axis 3 (rural diversification and quality of life – an almost 2.5-fold increase in EU funds, in real terms) and to slightly increase resources for axis 2. In addition, relatively more axis 1 funding is devoted to human capital (training, advice, co-operation) and market-orientation (adding value, quality), and a smaller share to inter-generational transfer (young farmers, early retirement), where large decreases in funding among EU-15 exceed increases in the new MS. Within axis 3, a large increase in funding for village renewal and rural services in the new MS is notable. For axis 4, project spend (i.e. local projects supported by LEADER groups) is planned to increase significantly (almost 30-fold). These changes may represent evidence of targeting RD priorities, in that they generally move in a direction recommended by independent and international RD studies.

7. Nevertheless, patterns of measure choice and planned funding exhibit a degree of path-dependency. This may reflect persistent needs, as well as ongoing financial commitments. However, there is evidence of programmes retaining and expanding measures rather because they are instruments with which implementing authorities and potential beneficiaries are familiar, and/or are certain to spend significant sums relatively simply, particularly for aid to the farm sector[3]. Especially in those ten MS acceding in 2004 whose programmes ran only for short periods (2000-04 and 2004-06), more conventional measures dominate. The programme-level analysis using RDPs, literature review and expert interviews suggested insufficient capacity among administrations, and sometimes civil society, to implement more ambitious measures (including targeted agri-environment aids, and LEADER). In view of developments already made in the Regulation (e.g. Article 6 strengthens the principle of partnership in delivery, compared to 1257/1999), the findings suggest a continuing need to encourage institutional learning and adaptation, in the planning and implementation of RDPs.

8. Analysing 'intensity of spend' by utilised agricultural area, agricultural workforce and number of holdings showed unusually high intensities in a few programme areas (e.g. Finland, Luxembourg) and low intensities in others (e.g. Romania, Netherlands). An analysis of spending over time reveals how different kinds of measure are inherently more or less likely to disburse funds quickly or predictably. Annual payment measures (significant within axis 2) tend to have more consistent spending profiles than investment aids, and aids to build and mobilise social and private collective capital tend to be slower to spend than physical capital expenditure (most relevant to axes 1, 3 and 4).

9. A broad set of rural characteristics was assembled by programme area, in respect of economic, environmental and social needs, using EU-level datasets. These illustrate how Europe's rural areas vary, including some that are buoyant economically while others are in persistent decline. A policy (RD) and literature review of RD 'needs' (including opportunities), was used to select and assemble characteristics into 'indicators of need'.

[2] this includes some MS increases (e.g. UK) and other significant cuts (e.g. some German Länder, cuts over 20%), resulting from the 2005 Council decision on Financial Perspectives

[3] In programme-level analysis (section 3.5) and 2 workshops with Commission officials and external experts

10. There are similarities between RD expenditure patterns (actual 2000-06 and planned 2007-13) and patterns of apparent need denoted by the indicators, between programme areas. Globally, more resources are devoted to areas where economic problems and the need for restructuring (particularly, small farm sizes, high employment dependence upon agriculture, low levels of education and training) are greater. Within axes, it seems there is conscious targeting for some particular issues (e.g. human capital, UK primary sector). By comparison with findings in previous studies (e.g. Dwyer *et al*, 2003), the recognition and justification of needs appears more prominent in RD programmes for 2007-13, and RD needs are more clearly conceptualised, evaluated and debated than they were for 2000-06.

11. The strong emphasis of RDP spending upon axis 2 cannot be assessed adequately, because for some aspects, comparable, relevant environmental data for all programmes is missing.

12. It is evident that pillar 2 is complemented by other national and/or EU regional policies. Particularly in respect of socio-economic funding, these may be of equal or, in some cases, greater financial significance. It is therefore difficult to assess the issue of optimal resourcing for socio-economic RD goals without fuller consideration of these wider policies and the role of RDPs in that context. However, in respect of rural socio-economic needs, analysis of indicators across the EU-27 and also needs identified at the programme-level suggests that RDPs alone may devote too significant a proportion of funding towards the agricultural sector and not enough to the wider rural economy and community[4].

13. There is significant variability in the available financial resource for RD between different programmes which is difficult to justify in terms of apparent relative needs. This seems to be mainly due to the historic weighting of EU-15 RDP allocations. In respect of the new MS, our study suggests that the criteria and formula used as the basis for RD allocations are likely to overemphasise the relevance of needs for the agricultural sector, as compared to environment or wider socio-economic need.

14. At the same time, the analysis confirms that the current RD framework offers considerable scope to target measures and expenditure towards areas and circumstances of rural need and opportunity.

Recommendations

R.1. At the level of EU budgetary allocations between Member States, the current system is not in line with a balanced appreciation of relevant rural characteristics for pursuing the key goals of RD policy. Better indicators of natural and wider socio-economic / quality of life characteristics of rural areas, should ideally be included in the formula for determining allocations for RD actions, between Member States.

R.2. We recommend further refinement of the indicators of need, to improve their analytical value and address weaker areas. This should address gaps for the environment and 'new challenges'[5], and non-farm, rural socio-economic aspects.

R 3. It is important to foster broader understanding between programme authorities, the Commission, stakeholders and civil society, about the rationale for comparing needs and resource allocations within RDPs. A process to foster ongoing learning is recommended,

[4] See sections 3.4 and 3.5.

[5] As raised in the Commission's CAP Health Check proposals, May 2008

such as further analysis of agreed common indicators of need. This could be developed within the CMEF.

Theme 2: Adequacy of the RD Framework

Results

15. The study adopted a **typology of RD interventions** based on types of rural capital: physical, financial, human, social, natural and cultural. Examination of RD policy rationale and experience indicated a historic (pre-2000) emphasis upon physical and financial capital, as opposed to environmental, human, social, and cultural capital. These other types are increasingly recognised as critical to sustainable RD and have grown in importance as elements of EU RD expenditure (point 6).

16. A **catalogue of RD instruments** was made by combining the typology with four main possible intervention approaches (investments, regular/annual payments, funding advice and information, and funding quasi-regulatory processes). This showed that the current range of instruments in the EAFRD covers most potentially valuable RD interventions. Nevertheless, analysis suggested opportunities for a few potential new instruments and for simplification and enhanced consistency: for some existing measures we recommend increasing flexibility of application, while for others we recommend focusing more clearly upon specific purposes.

17. The examination of **cost-effectiveness** identified independent evidence to support the cost-effectiveness of many measures in each EAFRD axis, although performance is strongly dependent upon delivery methods and local context. There is increasing empirical evidence to suggest that axis 1 and 3 instruments can be more effective when delivered in integrated (territory, filière or individual business) packages[6]. Agri-environment measures appear more cost-effective when targeted to defined environmental benefits and supported by appropriate information, training, applied research and co-ordinated investment (for management plans and restoration). Measures for the rural economy and community (mainly axis 3) are more likely to be effective if delivered via approaches which strengthen human and social capital, but these often take several years to establish (favouring long-term policy continuity). At the same time, empirical studies indicate poor cost-effectiveness for some measures including early retirement and Less-Favoured Area aids, due to insufficient tailoring of criteria to local contexts[7]. There is evidence that investment aids to private businesses (e.g. modernisation, young farmers, adding value, tourism) give low additionality if they are not targeted to situations with a clear rationale for public funding and low risk of displacement.

18. The analysis of **delivery systems** demonstrated highly varied approaches and indicated that this is often necessary to reflect local conditions. Partly due to policy developments since 2000, the EAFRD regulation presents few direct obstacles to the effective delivery of RD goals. However, the choice of delivery approach is often critical for successful achievement of outcomes and this is not yet strongly emphasised in policy.

19. A comprehensive **review of RD instruments in 'fiches**' drew upon all previous elements in the study to generate detailed recommendations. 39 fiches were prepared.

[6] See section 5.4 and Annex 4 Regionen Aktiv, Niger, Cumbria and Calabria cases

[7] See Annex 4 Spain case also, for LFA

Recommendations

20. To improve the effectiveness and efficiency of measures, we suggest the following.

R.4: The precise purpose of measures and measure-groups in the regulation could be further clarified and expressed in more consistent ways to ensure that the purposes are clear and avoid overlap.

R.5: There is a need to strengthen institutional learning in respect of the pros and cons of different delivery approaches and promote the use of apparently more promising approaches. Guidance on measures and programming could include more detail on appropriate delivery modes. Programme authorities could be required to describe their chosen delivery modes in more detail (e.g. centralised or devolved, single or combined measures), and explain how they relate to goals and local context. Guidance could describe the main kinds of recommended delivery system for particular strategic purposes, in particular contexts (e.g. combining measures in strategic packages for a territory, 'filière', or individual business).

R.6: A number of measures and outstanding needs could be reviewed, including:

- early retirement and aid for young farmers
- village renewal and basic services for the rural economy
- joint environmental-economic initiatives
- access to credit for micro-businesses in new MS.

R.7. We recommend some specific simplification to improve measure clarity and coherent application. Some measures represent 'variations on a common theme' which could be combined (e.g. measures for training, advice and advisory services).

21. From analysis of delivery approaches, cost-effectiveness and instrument fiches, we conclude that organising measures at EU level by axis limits flexibility of resource use across axes and requires duplication of measures. Nevertheless, it is important for the Commission and MS to have a clear overview of resource use against RD strategic goals.

R.8. The Commission could consider loosening the strict link between the main goals of RD activity expressed in the Strategy Guidelines, and the axes of the EAFRD regulation. We recommend retaining strategic goals, but encouraging more flexible use of measures between axes (or removal of axes). Minimum spend thresholds would still be used in respect of strategic goals, but different combinations of measures could be used to deliver these, in RDPs[8]. We recommend that thresholds should be kept under review and modified in the light of future evaluations[9].

22. The study has shown that while there is a significant amount of basic data in respect of the inputs and outputs of EU RD policy, there are significant challenges in trying to use this to identify lessons for improvement. The highly varied qualitative and contextual factors (embracing a wide range of goals and ensuring subsidiarity in implementation) that influence RD issues and policy impacts across the EU-27 call for a more profound, longer-term approach which should also uncover causal linkages between these variables.

[8] Authorities would need to explain which measures pursue which goals, as well as resources

[9] reducing required shares if results show certain goals have been met, increasing them if they show continuing needs, perhaps differentiating thresholds by groups of MS.

R.9. We recommend further research to gather robust, longer-term, comparable information on the implementation cost of RD measures, as well as their hard (quantifiable) and soft (qualitative) results and outcomes, across the EU-27; to identify best practice in recording, valuing and applying the lessons from analysis; and to examine the roles and relationship between RD funding and outcomes and complementary funding from EU-regional and national sources, in more detail.

List of figures and tables

Glossary / list of acronyms

AWU	Annual Work Units
CAD	Contrat d'Agriculture Durable
CAP	Common Agricultural Policy of the European Union
CEC	Commission of the European Communities
CTE	Contrats Territorial d'Exploitation
DDAF	Direction Départementale de l'Agriculture et des Forets
DEFRA	Department of Enviroment, Food and Rural Affairs
EAFRD	European Agricultural Fund for Rural Development
EAGGF	European Agricultural Guidance and Guarantee Funds
ERDF	European Regional Development Fund
ESF	European Social Fund
EU	European Union
EU-10	The ten new Member States that acceded to the EU in 2004
EU-15	The 15 Member States that were full members of the EU from 2000-06
EU-27	The twenty-seven Member States of the EU, 2007-
GDP	Gross Domestic Product
GVA	Gross Value Added
HNV	High Nature Value
IFDR	Transitional Fund for Rural Development, used to fund the accompanying measures in EU-10 Member States from 2004-6
LAG	Local Action Group
LEADER	Liaisons Entre Actions de Developpement de l'Economie Rurale – the name for multisectoral, partnership-based local development initiatives established with EU funding following the piloting of this methodology under the LEADER Community Initiative, 1991-99
LFA	Less Favoured Areas (designated under EU legislation)
Accompanying Measures	Those measures which were funded under EAGGF Guarantee budget in all EU-15 territories, 2000-06, irrespective of Objective 1 status (comprised early retirement, Less Favoured Area aids, Agri-environment measures and afforestation of farmland). They were also funded under IFDR 2004-6.
MoA	Ministry of Agriculture
MoE	Ministry of the Environment

MS	Member State
Modulation (compulsory)	the mechanism introduced in the 2003 CAP reform which top-slices a variable proportion of the total EU budget for CAP Pillar 1 for each Member State, and redirects this funding into the Pillar 2 budget, annually from 2005-13.
New MS	The 12 Member States that acceded to the EU in either 2004 or 2007
Pillar 1 CAP	The commodity and market support mechanisms of the Common Agricultural Policy, including direct payments, import levies, export refunds, guaranteed prices, milk quotas and the (decoupled) single farm payment
Pillar 2 CAP	the rural development policy under the CAP, 2000-
RAG	Regional Advisory Group
RD	Rural Development
RDP	Rural Development Programme
RDS	Rural Development Service
RGP	Regional Growth Programme
SAPARD	Special pre-Accession Programme for Agriculture and Rural Development available to the new MS with the exception of Malta and Cyprus, to fund programmes from 2000 up to the date of accession.
SFIE	Selective Finance for Investment in England
SWOT	Strengths, Weaknesses, Opportunities and Threats analysis
Targeting	focusing policy attention and resources upon those specific instances or cases which are most likely to deliver key goals (as opposed to enabling policy support for all applicants, on demand)
UAA	Utilisable Agricultural Area
USP	Unique Selling Point
Voluntary Modulation	the policy mechanism under the CAP 2000- which enables Member States to decide to top-slice a proportion (up to 20%) of total CAP pillar 1 receipts and redirect this funding to rural development, in their own country.

Section 1. Introduction

1.1 Aims and scope of study

As detailed in the Commission's project specification, the aims of the study are as follows:

1. to review existing intervention rationales and instruments and their use against the new objectives, EU priorities and key actions identified in the EU Strategic Guidelines;
2. to assess whether and how these rationales and instruments *should be adapted* to deliver rural development objectives, priorities and actions more effectively;
3. on the basis of this analysis, to provide an assessment of
    a. the *targeting and effectiveness* of existing rural development instruments; and
    b. *correspondence* - the extent to which existing policy instruments correspond to policy objectives, and
    c. how *new or improved policy instruments and delivery mechanisms* could improve the effectiveness of the policy in future, particularly for the post-2013 programming period.

In essence, the study combines two main elements:

- a detailed empirical, data-based assessment requiring the design, population and analysis of a relational database containing information on rural development programme spending (actual and planned) across the EU-27, in the periods 2000-6 and 2007-13, as well as information on the characteristics of local and rural areas across Europe; and

- a qualitative analysis and assessment, both shaping and building from the emerging results of the quantitative work, but also drawing upon previous research experience and expert knowledge and ideas about rural development in a European context.

More details of the study tasks and schedule are given in section 2 of this report. It has been undertaken between January 2007 and May 2008.

1.2 Study context : the recent evolution of European RD policy

In its preamble, the Commission's specification notes how the current RD policy framework has evolved from pre-existing policies and measures, which provides the context and rationale for commissioning this study.

> "Since the mid 1990s, the EU has co-financed a range of different support measures for rural development which reflected objectives such as agricultural restructuring and modernisation, territorial or local development and environmental protection. These measures, conceived at different times to address specific issues, were put together into a more coherent framework in the Agenda 2000 reform agreement. Agenda 2000 established rural development policy as the second pillar of the EU's Common Agricultural Policy, and brought rural development under a single regulation. In spite of this simplification, rural development policy continued to be financed through two different funds, with three different management and control systems, and five different types of programming.
>
> In September 2005, the Council of Ministers adopted a Rural Development

> regulation for the period 2007-2013. The objectives of the policy have been simplified and clarified, while the presentation of measures has been rationalised. Rural Development will be implemented through one fund, one management and control system and one type of programming; In February 2006, the Council of Ministers adopted Strategic Guidelines for Rural Development which define EU priorities and key actions for rural development.
>
> In spite of the evolution of the regulatory framework, objectives, and priorities and the simplification of the policy, rural development instruments remain largely unchanged since the early 1990s. The purpose of this study is to provide a thorough assessment of EU rural development instruments, on the basis of a range of different approaches, with respect to the objectives and priorities defined in the Rural Development Regulation and the Strategic Guidelines.
>
> (CEC, 2006)

Thus, it is important to summarise briefly the key stages in the evolution of RD policy over this period, to be clear about where and how the study can best contribute to this process.

The formal beginning of an explicit and dedicated approach to EU rural policy within the CAP began in 2000, with Regulation 1257/1999 on support for rural development under the EAGGF. This new 'second pillar' to the CAP was formed by bringing together a range of pre-existing measures, pursuing different purposes with CAP funding, including:

- the former accompanying measures (agri-environment, afforestation of farmland, early retirement);
- the universally available Objective 5a structural measures for farming (investment aids, processing and marketing, training, young farmer support, less-favoured area aids);
- the targeted EAGGF Guidance RD measures formerly offered only within Objective 5b areas, under Structural Fund programmes (which became the 'Article 33' suite, within the new Regulation);
- LEADER programmes (Regulation 2000/C 139/05).

At the time of its creation, Regulation 1257/1999 adopted detailed legal definitions of its constituent measures which were largely unchanged from the versions which had been operating up to the end of 1999. The main exceptions to this general rule were:

- in respect of Less Favoured Area aids, where the Commission decided to withdraw the option to pay compensatory allowances on a per-head of livestock basis (to ensure the payments were decoupled from production),
- in agri-environment schemes, where the purposes of environmental management were broadened and the basis of payment altered slightly to ensure no potential conflict with WTO 'green box' rules on decoupled support,
- in respect of farmland afforestation, where the maximum length of annual payments was decreased to 15 years (from 20, previously) by Regulation 1698/2005, largely in response to some criticism of this measure from the EU Court of Auditors.

However, it was recognised at the time by the Commission and by other commentators (CEC, 2002, Dwyer et al, 2003) that this approach would require some refinement over time, to improve its coherence and ability to meet RD needs across an enlarged EU. Thus in the second RD conference in Salzburg, November 2003, a significant focus of conference discussions was upon the complementary themes of:

- how to make best use of the measures to promote three kinds of overarching, implicit purpose in RD policies (improving primary sector competitiveness, supporting environmental management and promoting rural economic diversification and quality of life); and
- simplification; i.e. how to simplify the contents and operation of the Regulation and its delivery, so as to increase its ability to deliver effectively and efficiently.

The Salzburg discussions and conference declaration (CEC, 2003) led the Commission to consider both these issues in its work to prepare the new rural development framework and fund for the period 2007-13. This work was further supported by research (e.g. Baldock et al, 2002) and by discussions with the Member States in special working groups (e.g. on simplification) during the period 2004-6. At the same time, this process also influenced the Mid-Term Review reforms of the CAP, which led to the addition of a few new measures and goals to the RD menu (CEC, 2003b). These comprised:

- support for the use of farm advisory services (to complement the new provisions for cross-compliance, introduced under Pillar 1 reforms);
- support for farmers joining quality assurance schemes and for related promotional actions, to increase emphasis upon quality production;
- support to help farmers to meet demanding new standards of legislation in respect of the environment, animal health or food safety – to promote more effective and rapid compliance.

Also, some new RD measures were devised specifically to aid the accession process for new Member States, from 2004, under the transitional instrument for RD funding (formerly termed the 'IFDR'). These included supports for semi-subsistence farms and for producer groups, to help improve product quality and marketing.

The European Agricultural Fund for Rural Development Regulation (EAFRD), which governs RD programmes for the new period 2007-13, draws upon the combined influence of all these policy developments since 2000. It therefore incorporates both a modest revision of the list of measures, and a degree of simplification of measure definitions and eligibility criteria, by comparison with Regulation 1257/1999. These changes are, of course, in addition to the major simplification of bringing together all RDPs under a single, common funding instrument, for the new period, thus consolidating the second pillar and providing an institutional setting to encourage more effective policy delivery.

The main changes to note, in respect of the suite of measures and the ways in which they are to be delivered, are as follows (comparing EAFRD with Reg 1257/1999).

- The brigading of measures into four axes, each with a strategic goal (1: competitiveness in farming and forestry; 2: environmental land management; 3: economic diversity and quality of life; and 4: the LEADER approach), which provides a clearer link between measures and the strategic EU goals to which they are intended to contribute. The EU Strategic Guidelines for RD, developed from the axis purposes, also serve to increase the importance of common, overarching goals in respect of European rural development policy, which should also be reflected in the focus of national and regional programming, within the Member States.

- The criteria for eligibility in respect of the former '5a' farm structures aids have been considerably simplified and/or broadened in most cases, under Axis 1 of the EAFRD. This has increased the range of potential purposes for which they can be applied, as well as the approaches that programme authorities can use to tailor them to local needs.

In a few cases, eligibility criteria have been strengthened – eg for aid to young farmers, where support is now conditional upon the beneficiary having an approved business plan. Also, by adding promotion as a specific purpose of targeted axis 1 aid, by enabling the training measure to support demonstration projects, and by retaining the farm advice measures from Mid-Term Review reforms, Axis 1 now has greater potential to support product, market and management innovation and development, within the primary sector.

- The range of measures for promoting environmental land management has been extended and revised in Axis 2, including measures to compensate for environmental restrictions explicitly in respect of Natura 2000 areas and areas subject to new provisions in connection with the Water Framework Directive and water protection. In addition, under the other axes some elements of environmental integration have been added to existing measures. For example, under Axis 1, the meeting standards measure introduced from the Mid Term Review reforms has been retained, and the specifications of the modernisation and training aids now make explicit reference to environmental management needs, as well as improving competitiveness.

- RD aids for forestry actions have been largely brought into a similar structure alongside aids for agriculture. Aid for investment (now called modernisation), vocational training, processing and marketing (now called adding value) has been made available to both agriculture and forestry through common or parallel instruments, under Axis 1. In addition, Axis 2 includes 2 new measures for forest-environment goals, which closely match those available in respect of the agri-environment.

- The menu includes some specific Axis 1 measures to support new Member States, derived from experience under the IFDR programmes from 2004-6: support for semi-subsistence farming and for setting up producer groups to help improve product marketing and development.

It is important for this study to acknowledge this evolution of EU RD policy since 2000, in order to ensure that our analysis is built on an up-to-date understanding of the current Regulation and its likely operation in programmes 2007-13, and to act as the reference point for our recommendations.

The new framework for EU RD policy has so far led to 27 National Strategy Plans, 88 regional/national RDPs, 2 National Framework programmes, and 3 National Rural Development Network programmes. The Community Strategic Guidelines set out European RD priorities, which also had to be reflected in national/regional strategies, thus helping to direct the attention of MS to new topics e.g. innovation, ICT and climate change.

Another important consideration in the evolution of the RD policy between 2000-06 and 2007-13, is the budgetary allocation. The Commission originally proposed a modest increase in the RD budget at EU level, but this was reduced significantly in the eventual agreement on the Financial Perspective, for 2007-13. Because a significant proportion of the new budget was allocated to the new MS under the pre-determined allocation formula applied to these RDPs, this meant that a significant number of EU-15 Member States actually experienced a decrease in RDP allocations from the EU, in real terms, between 2000-06 and 2007-13. The total budget for programmes 2007-13 now stands at €90.8 billion of EU funding, €57.6 billion of national and regional co-financing and state aids, and it will stimulate a planned €64.8 billion of private expenditure. We will return to these points in more detail, in the expenditure analysis, in section 3 of this report.

Section 2. Study Methodology and Timing

2.1 The specification

The study specification required a sequence of eight numbered tasks, some with detailed sub-tasks, to be undertaken over the period from January to November 2007. In detail, the specification said the following.

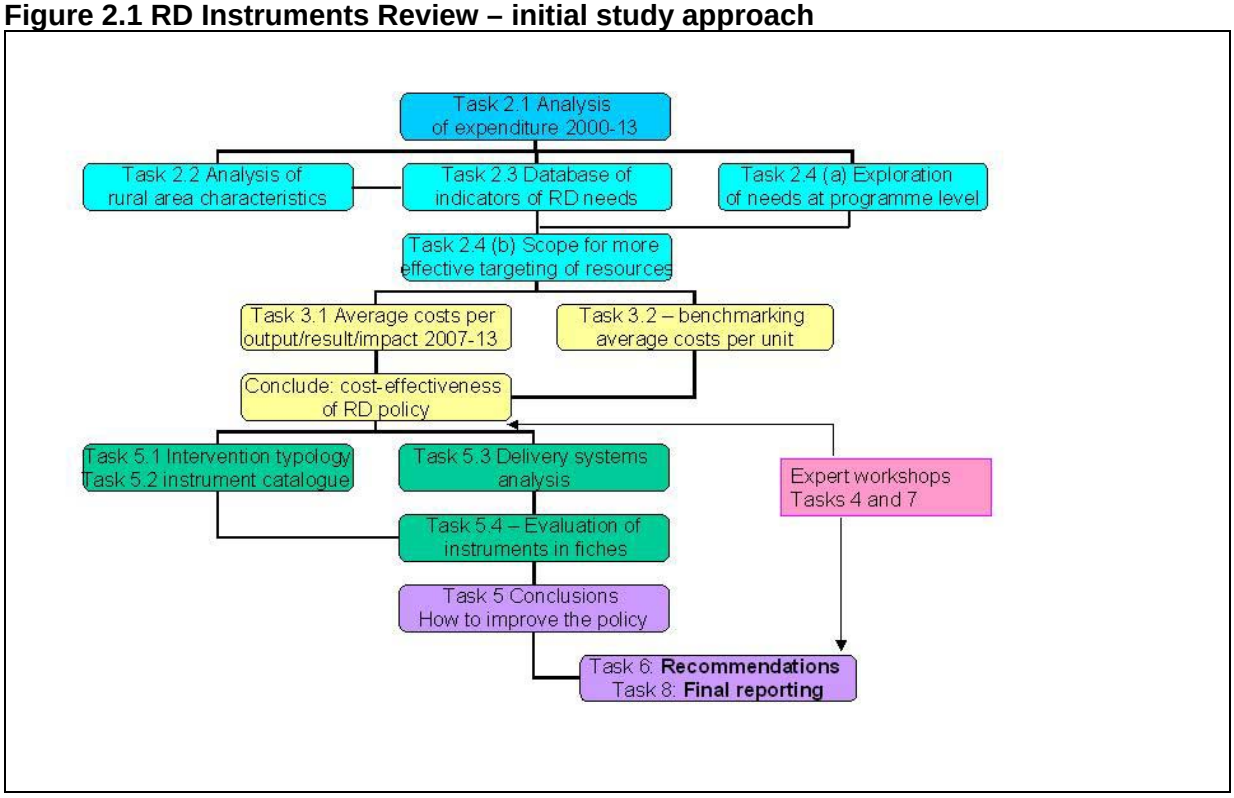
> 'The aim of this study is to review existing intervention logics and instruments and their use against the new objectives, EU priorities and key actions identified in the EU Strategic Guidelines. The study will assess whether and how these intervention logics and instruments should be adapted to deliver rural development objectives, priorities and actions more effectively…… On the basis of this analysis, the study will provide an assessment of:
> - the targeting and effectiveness of existing rural development instruments;
> - the extent to which existing policy instruments correspond to policy objectives and how new or improved policy instruments and delivery mechanisms could improve the effectiveness of the policy.'
>
> (CEC, 2006)

A sequence of numbered tasks (with numbered sub-tasks in parentheses) were to be undertaken between January and May 2008, as follows.

- Task 1: inception report, detailing the methodology for the study.
- Task 2: *Targeting of rural development instruments 2000-13*
  - the construction of expenditure databases in order to enable an analysis of Rural Development (RD) expenditure, 2000-13 (2.1);
  - an analysis of rural area characteristics (2.2);
  - the development of data-based indicators of need for RD expenditure (2.3);
  - conclusions on the scope for more effective targeting of resources (2.4).
- Task 3: *Effectiveness of rural development instruments 2000-13*
  - analysis of cost per unit CMEF output, result and impact of planned RD expenditures 2007-13 (3.1);
  - benchmarking of these performance indicators using additional cost per unit data for 2000-06 rural development programmes (RDPs) and other sources (3.2);
  - conclusions on the cost-effectiveness of RD policy (3.3).
- Task 4: Workshop with external experts and Commission officials, to present work so far.
- Task 5: *Assessing the range of instruments available for rural development* –
  - developing a typology of possible RD interventions (5.1), and from this,
  - an RD instruments catalogue, against which to assess current measures (5.2);
  - examining RD delivery and implementation mechanisms (5.3),
  - assessing RD instruments against EU policy objectives, via individual 'fiches'; and drawing conclusions on the scope to enhance the policy by changes to the list of measures and/or delivery mechanisms (5.4).
- Task 6: *study recommendations*, covering proposed changes to the RD framework, suggestions for further development and research priorities.
- Task 7: second expert workshop
- Task 8: final reporting.

The proposed sequence of tasks is set out in figure 2.1

Figure 2.1 RD Instruments Review – initial study approach



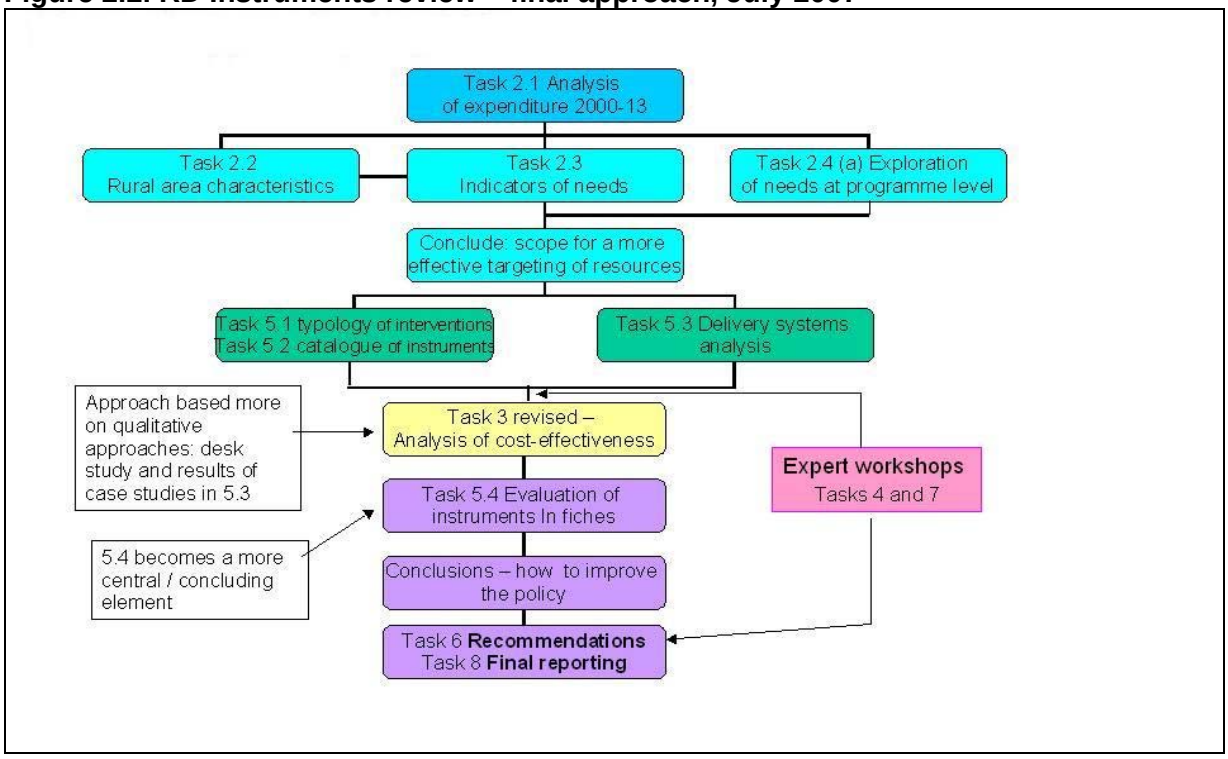
2.2 Development

It was apparent soon after the beginning of the study that progress in respect of adopting the 93 national and/or regional RDPs 2007-13 was much less advanced than had originally been anticipated. By July 2007 the initial programme drafting was not yet complete for all Member States, and many final texts were not submitted to the Commission by Member States before the end of 2007. This caused delay in making the respective information available for this study, because of which, the approach was modified to reduce its reliance on detailed analysis of full information and data in respect of these programmes. In addition, some modifications to task specifications were made following a review of feasibility and discussion with external experts and commission officials. These were:

- addition of a qualitative, sample-based analysis of targeting of needs within draft RDPs at the programme level, to increase the evidence available for task 2.4;
- revision of task 3, to make the quantitative analysis (3.1) based mainly on 2000-06 Guarantee fund output data, and a sample of output/result/impact data for both periods, and to complement this with a literature-based review of instruments' cost-effectiveness (new 3.2), drawing on key national and international sources.
- re-ordering of tasks, so the typology and catalogue of instruments and analysis of delivery systems preceded analysis of cost-effectiveness, to enable them to inform it

Thus, from July 2007 a new sequence of tasks was adopted, as shown in Figure 2.2. This is the structure around which the final report has also been organised.

Figure 2.2. RD Instruments review – final approach, July 2007



As can be seen, the final approach strengthened the qualitative analytical components of the study, in order to redress weaknesses in the quality, consistency and comparability of the data upon which the quantitative analysis depended.

In sum, the approaches to each task were as follows:

- Expenditure analysis – based upon EC datasets of planned and actual expenditures by programme area for the EU-27, with some information also at sub-programme level for accompanying measures in the EU-15 Member States;
- Characteristics analysis and development of indicators of need – based upon analysis and development of EU datasets from EC, EEA and Eurostat sources, supported by a literature review of scientific and policy sources across the EU;
- Programme-level analysis of targeting – investigated using a selection of 10 draft or final RDPs for a contrasting range of programme areas in 7 Member States, supported by interviews with policy makers and independent experts, as well as additional, relevant RD literature for each programme area;
- Typology and catalogue of RD interventions and instruments – based upon EU and international literature review;
- Analysis of delivery mechanisms – desk study and a selection of 10 case studies of delivery, chosen to cover the full range of RD axes and principal measures, a variety of delivery approaches and a contrasting range of geographical contexts;
- Cost-effectiveness – data-based analysis of cost per unit output for 2000-06 programme outputs, using EC-supplied datasets and one dataset held by the Italian government; plus detailed literature survey and selected interviews with experts covering 5 Member States and the international evaluation literature;
- Evaluation of instruments – developed using the combined results of the preceding tasks, and refined in the workshops with EC and external experts.

Section 3. Targeting of RD policies

3.1 Introduction to this section

This part of the report makes an assessment of:

3.2. *RD Expenditure*: How the available RD resources have been applied across the territory of the EU-27, over the full period 2000-13, examining rural development measures funded by EAGGF (guidance and guarantee), SAPARD and transitional instruments during the 2000-06 period, and EAFRD for the 2007-13 period;

3.3. *RD Characteristics*: How the varied territory of rural Europe is characterised, using standard indicators in respect of its economic, social and environmental assets and challenges;

3.4. *Indicators of need for RD*: How rural characteristics can be used to give some basic indications of relative and respective need or opportunity for RD resources, looking at the different strategic goals of RD policy and the relative positioning of different programme areas in respect of key rural characteristics, and examining how different parts of Europe compare, in respect of these relative needs;

3.5. *Targeting within RDPs*: How targeting is explained and justified, within RDPs, as a means of focusing resources where they are most needed or where they can be expected to generate the most positive results, in respect of RD strategic goals.

Each of the assessments 3.2-3.4 was specified in the original study terms of reference. Assessment 3.5 was devised by the study team as an additional element, in order to add explanatory depth. Together, these ingredients should enable an assessment and partial evaluation of the targeting of RD policies at both EU and Member State levels. In particular, they were aimed to address the following key questions:

1. To what extent are RD resources apparently targeting areas and issues of most need, when considered at European level, and at the level of individual programme areas?

2. What reasons underlie divergences between apparent RD needs and opportunities in rural areas, and the policy choices and resource allocations evident within second pillar policy and programmes?

3. What is the apparent scope to achieve a better targeting of RD resources, in this context?

We return to these questions in the final part of this section of the report (3.6. - conclusions).

3.2 Analysis of RD expenditure, 2000-13

3.2.1 Approach to the analysis

For this task, the study built and interrogated three databases, using a variety of data supplied by the Commission. The databases contain the following information.

Database 1 - NUTS3 level, Guarantee fund actual expenditure, 2000-2006, EU-15
Database 1 is based upon the 2000-2006 CATS auditing data at NUTS 3 level. It includes actual EAGGF Guarantee spend for NUTS3 areas in EU-15; the area of territory covered by the payment (where relevant); and the number of beneficiaries to the payment.

Database 2 – Programme level, combined expenditure on EAGGF Guidance, Guarantee, SAPARD, IFDR, LEADER programmes, 2000-2006, EU-27
Database 2 is based upon Agrex EAGGF Guarantee and Guidance data 2000-2006 for individual programme areas, for all 27 Member States / former candidate countries. The data includes actual spend (Guarantee) and planned spend (Guidance, IFDR, LEADER and SAPARD), and details both the EU and total public spending, in each case. It was not possible to source data giving actual Guidance, SAPARD, IFDR and LEADER expenditure *by measure and programme area*, for this period.

Database 3 - EAFRD planned expenditure, 2007-2013, EU-27
Data base 3 is based on a set of indicative budgets for the regional/national RDPs. As explained in section 2, due to late approval, the data available for the analysis conducted in the context of this study was not complete. Therefore there is a significant discrepancy of about €4 billion between the total EAFRD budget (as of July 2007) used for this study (total €86.8 bn) and the final budget (total €90.8 bn, as of April 2008). Spend data includes that for EU, public and private sources. Data for all programme areas was lacking 8 regions in Spain[10], 1 in Italy[11], 1 in the UK[12], and Malta, as well as spending on national network plans and frameworks (where applicable) for Germany, Italy, Portugal and Spain.

More details on how the databases were built, and our approach to dealing with gaps and errors in the data, are given in Annex 1 to this report.

This section provides a summary and comparative analysis of patterns and trends in rural development expenditure in the 2000-06 and the 2007-13 programming periods. It includes brief consideration of total and EU expenditures, spending by funding instrument, spending on measures within each Axis, the targeting of spend within Member States, and expenditure patterns over time.

The data has been analysed to produce a set of key tables and maps which give:

- A comparative overview of EU and total public expenditure 2000-6 and 2007-13 on rural development programmes for the EU-27, covering all 2000-06 measures from RDR, LEADER, IFDR, EAGGF Objective 1 programmes, and SAPARD at programme level, plus all planned use of EAFRD measures at programme level, 2007-13;
- a more detailed analysis of accompanying measure spending 2000-06 for the EU-15, at NUTS 3 level.

[10] La Rioja, Madrid, Cantabria, Asturias, Canarias, Castilla-la-Mancha, Extremadura, Murcia
[11] Puglia
[12] Wales

Additional tables and maps from the analysis are given in Annex 1.

The key questions for the analysis, agreed with the Commission, were as follows:

- ***How are total resources divided between countries, programmes and axes over the two programming periods, and how do these compare between the two periods?***

- ***What is the relative intensity of spending 2000-06, in different territories?***

- ***How much inter- and intra-programme spatial targeting is evident at NUTS3 level for the 2000-06 accompanying measures (the only measures for which comprehensive data at this geographic level is available)?***

- ***How significant are the different funding programmes, 2000-06 (Guarantee, SAPARD, Guidance, IFDR, LEADER+) in each country, and does the funding source or type of measure appear to affect the pattern of spend, over the period?***

In addition, a number of specific investigations have been made in respect of expenditure on individual measures or groups of measures, in each axis. These investigations are primarily to demonstrate the level of analysis that is possible with the database, and cover:

- the balance of spend on human and physical capital or adding-value in axis 1;
- farmland afforestation and LFAs in axis 2;
- village renewal and basic services in axis 3
- all measures under axis 4.

The selection of measures was intended to illustrate some interesting points about key choices and key trends in respect of RD approaches, in each case.

- The investigation of expected spend on human and physical capital under Axis 1 was undertaken because the Community Strategic Guidelines suggest a need for particular focus on the former. Examining how the balance has changed between the two programming periods could therefore demonstrate the impact of this perspective.

- The focus on afforestation under Axis 2 investigates the extent to which priorities have altered, given criticism of large afforestation programmes in the late 1990s and in 2000-06. The impact of commitment carry-over from previous programming periods can also be examined. LFA aid was examined because expenditure on this measure has increased significantly, despite some recent external criticism.

- The extent to which village renewal and basic services are used, especially in convergence regions and new Member States, is investigated under Axis 3 in order to probe measures which are targeted more at the wider rural economy beyond agriculture.

- The LEADER approach has been the focus of much methodological and rhetorical debate about the second pillar. Some commentators and stakeholders have called for the bulk of RDP programmes to be delivered according to a LEADER approach, in the new programming period. Thus the extent and pattern of use of Axis 4 is of particular interest.

Cautionary note – considerations of data comparability, 2000-06 and 2007-13
It is important to note that the total expenditure on EU rural development policies in both programming periods is significantly affected by the precise nature of funding instruments applied, in each period. Key issues are summarised here.

- In 2000-06, the SAPARD funding instrument was the only EU funding available to pre-accession countries to support RD actions, for the pre-accession period. This instrument offered aid for a more narrow range of RD measures than was available under Reg 1257/1999 to existing MS, over the same period.
- Only eight of the ten MS acceeding in 2004 had access to SAPARD funding, 2000-04 – Malta and Cyprus did not. Also, Bulgaria and Romania had access only to SAPARD funds for the whole period 2000-06;
- Those MS that acceded in 2004 subsequently gained access to a much fuller range of RD measures for the two years 2005 and 6, under the IFDR and Structural Fund Special Operational Programmes for which they were eligible. These measures were broadly similar to those available to the EU-15 for the full period 2000-06, but they also included two additional measures (support to producer groups, and support for semi-subsistence farming) to which EU-15 countries did not have access;
- Within the EU-15, the majority of measures remained unchanged over the programme period. However, a small number of new measures was introduced following the 2003 Mid-Term Review of CAP (see section 1 for details).

These points suggest that, in comparing funding between the two programming periods, care should be taken not to infer that changes in total funding levels, or changes in patterns of expenditure between measures, are wholly the result of choices made at the level of individual programming authorities. We return to these points where relevant, in discussion of our detailed findings.

3.2.2 Analysis and results

3.2.2.1. Analysis of total expenditure 2000-06 and 2007-13, compared

Table 3.1 presents total public and total EU expenditure by Axis[13] in the 2000-06 and the 2007-13 programming periods, as well as the proportion of total public and EU expenditure by axis. Total public expenditure is planned to increase by 40% in the 2007-13 programming period compared to 2000-06, in real terms[14]. EU expenditure is scheduled to increase by 42% in real terms, and the EU contribution will increase marginally as a proportion of total public expenditure. This largely reflects the fact that compared to the old period, a greater proportion of the total budget is devoted to convergence regions, where levels of EU co-financing are generally higher than in non-convergence regions.

EU and total public spending under each of axes 1, 2 and 3 (including relevant LEADER spending) is set to increase in the 2007-13 period, as would be expected given the timing of enlargements to the EU. However, total public spending under non-project Axis 4 (LAGs, local strategies, co-ordination, networking and co-operation actions under LEADER) is expected to reduce slightly from €1.964 billion to €1.798 billion, whilst EU spending on these purposes will increase by 4.0% from €1.088 billion to €1.131 billion. Thus the data suggests that programming authorities have not planned significant growth in the application of the

[13] Note that for 2000-06, programmes were not organised around ;'axes'. Nevertheless, the EC already described measures in the Regulation in respect of the three main purposes that they fulfilled (broadly corresonding to the current axes 1-3). Thus for this study, the 2000-06 measures were apportioned to axes according to their main purposes as identified in the relevant EC documents. Details of the allocation can be found in annex 1 to this report. This is the first time that such a comparison has been made, for all these spending sources across the 2 programming periods.

[14] Using the mean annual inflation rate for the EU-15 over the period 2000-2006 of 2.071% (Source: eurostat Consumer Price Index figures)

LEADER method, between the two programming periods. Dealing separately with LEADER projects, however (LAG spending on axes 1,2 and 3), the level of total public spend will increase significantly, rising from around €158m to €6.4bn, between the two periods.[15]

Table 3.1: Total public and EU expenditure (in € billion) – unadjusted for inflation

Axis	**Public expenditure**				**EU expenditure**			
	2000-06	**%**	**2007-13**	**%**	**2000-06**	**%**	**2007-13**	**%**
Axis 1	32.739	37	48.573	34	19.62	37	30.191	35
(of which LEADER)	(0.021)		(0.720)		(0.015)		(0.449)	
Axis 2	44.321	50	65.936	46	26.154	50	38.525	44
(of which LEADER)	(0.006)		(0.250)		(0.004)		(0.132)	
Axis 3	8.237	9	22.961	16	5.274	10	15.066	17
(of which LEADER)	(0.131)		(5.435)		(0.093)		(3.3)	
4 non-project	1.964	2	1.798	1	1.088	2	1.131	1
Non-axis	0.822	1	2.640	2	0.591	1	1.754	2
Total	**88.084**	100	**141.908**	100	**52.726**	100	**86.668**	100

Note: Germany, Spain, UK, Italy, Portugal and Malta have some missing data in 2007-13.

Examining the balance of spending, Axis 2 has the largest share of total public and total EU funds in both periods, followed by Axis 1 and then Axis 3. However, a greater proportion of total public funds and total EU funds will be spent under Axis 3 and non-axis spend (technical assistance and complements to Direct Payments) in 2007-13. This increased prominence for non-axis spending no doubt reflects two considerations:

- the fact that previously, technical assistance was not eligible for EU co-funding under the Guarantee budget, but only under the Guidance budget. Now that the two funding sources have been combined into the EAFRD, technical assistance is available to all programme areas and this may help to explain why it is higher than before.
- Another important factor will be the fact that in the new programming period, a much greater proportion of spending is going to convergence regions in the new Member States, where it could be anticipated that the need for technical assistance would be greater than in most of the EU-15.

Considering the totals by Member State, the greatest release of total public funds for RD, 2000-06 was in Germany at €14.3 billion. Germany, Spain, Italy and France together accounted for some 57% of total expenditure, while expenditure in the EU-15 comprised 91% of total public RD funds dispersed in the period. These data emphasise the historic influence on RD spending in 2000-06, in that those MS with the largest programmes are those with well-established rural development programmes and measures developed during the 1990s (which include both convergence and non-convergence territories). History also helps to explain why most money was spent in the EU-15 rather than the new Member States. Most new Member States had access only to pre-accession funds under SAPARD until 2004 (and indeed Malta and Cyprus did not have this funding) and this was for a relatively restricted range of measures, by comparison with that available to the EU-15. So, for example, most of the new Member States did not have any significant agri-environment schemes in operation prior to 2004. As a result of these and other factors, the absolute expenditures on rural development vary enormously between different countries, 2000-06.

[15] We understand that the convention for recording this spending changed between the two periods. It is not possible to know the extent of this effect on the overall LEADER spend figures; however it implies that the 2007-13 planned project spend figures could be understated.

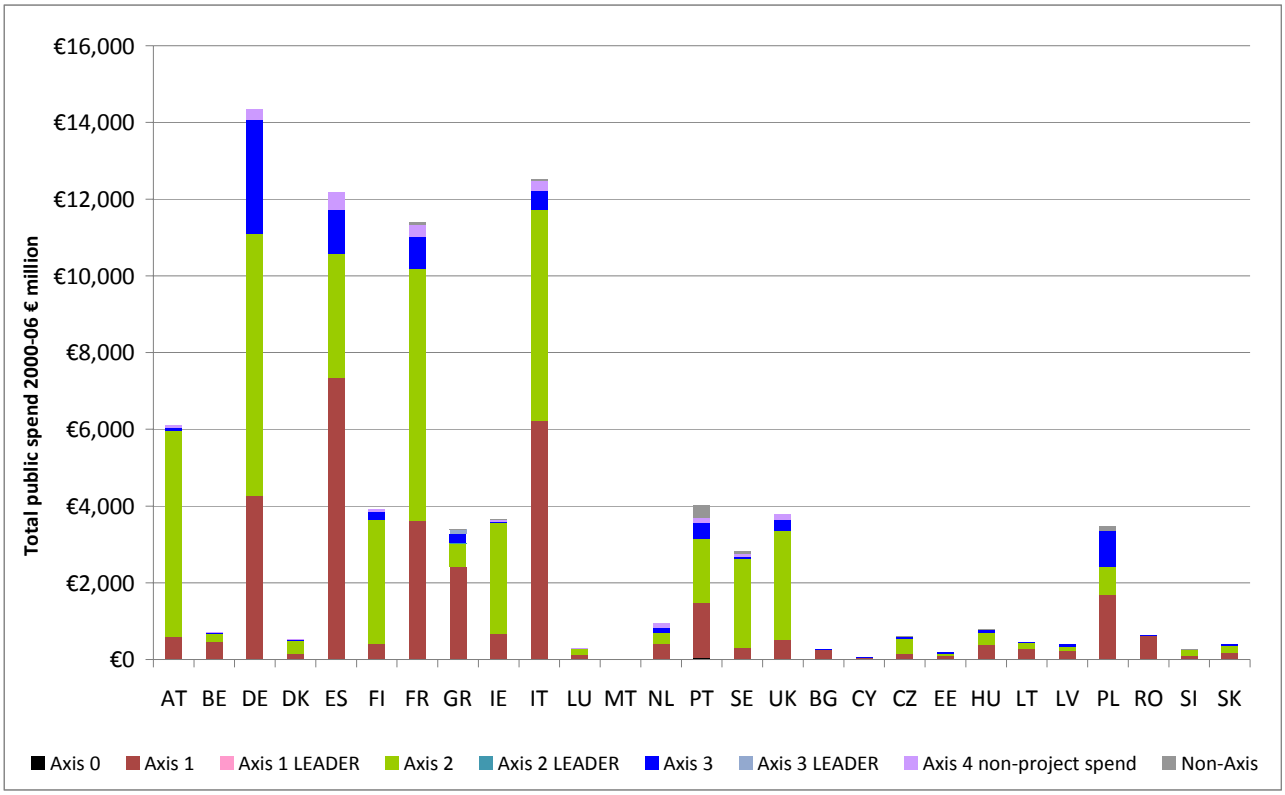


Figure 3.1: Total public spend 2000-06

Examining the variation in proportionate spending between axes across the Member States 2000-06, some interesting patterns are apparent[16]. Environmental land management was by far the dominant focus of funding in the programmes of the UK, Sweden, Finland and Austria. By contrast, improving the competitiveness of farming and forestry was the major priority for programmes in Belgium, Bulgaria, Greece and Romania, as well as having the biggest single axis share of RD resources in Spain, Estonia, Lithuania, Latvia, the Netherlands and Poland. A number of Member States devoted almost equal shares of spending to axes 1 and 2 and a smaller share to axes 3 and 4, including Cyprus, Hungary, Italy, Portugal and Slovakia. Only some countries spent more than 10% of the total on axis 3 or 4; these include Germany, Spain, France, Greece, Ireland, Latvia, the Netherlands, Poland, Portugal, Sweden and the UK.

During 2000-06 it is clear that the greatest share of technical assistance expenditure was in some of the new Member States and also in member states among the EU-15 that have (had) a large proportion of convergence (Objective 1) regions within their territories. The largest share of total spending on non-axis measures was recorded for Portugal, at 8 per cent, while Hungary spent just over 5% and Poland and the Czech republic between 1 and 5%. In all other areas, it accounted for less than 1 per cent of total spending over the period. This lends support to our hypothesis that non-axis spend has increased because the proportion of total RD funding within convergence (formerly Objective 1) regions has increased, between the two periods.

[16] It should be noted that only a limited number of measures were available for SAPARD countries and these tended to be Axis 1 measures. Whilst Axis 1 will therefore appear prominently in these countries it does not imply that these Member States would have focused on Axis 1 had other measures been available to them. The extent to which priorities changed once other measures became available can partially be assessed by comparing the 2000-06 allocations with those planned for 2007-13.

Looking at total planned public spend 2007-13 (figure 3.3), we see how rural development funds are considerably more evenly spent between old and new MS by comparison with 2000-06. The EU-15 now account for a much reduced share of the funding pot, but it is still two-thirds (66.9%) of total expenditure. However, the disparities between different countries remain very large and the dominance of spend in Poland, alone among the new MS, is notable at €17.2 billion. This is no doubt related to EC formula for calculating the allocation of RD funds to new MS (based on UAA, workforce in agriculture and contribution of agriculture to GDP), since all these characteristics are relatively pronounced in Poland.

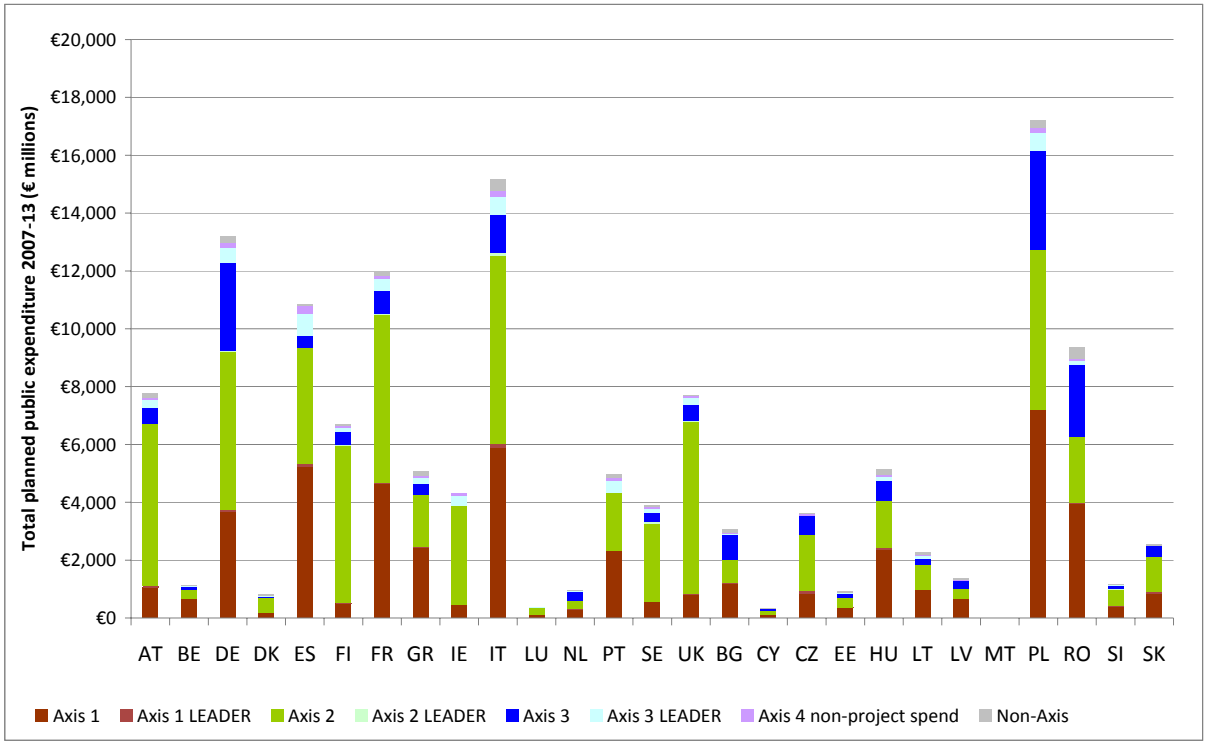


Figure 3.3: Total planned public spend 2007-13
Note: Spain, UK, Germany, Italy, Portugal and Malta have some missing data.
Axis 4 non-project category excludes LEADER project expenditure

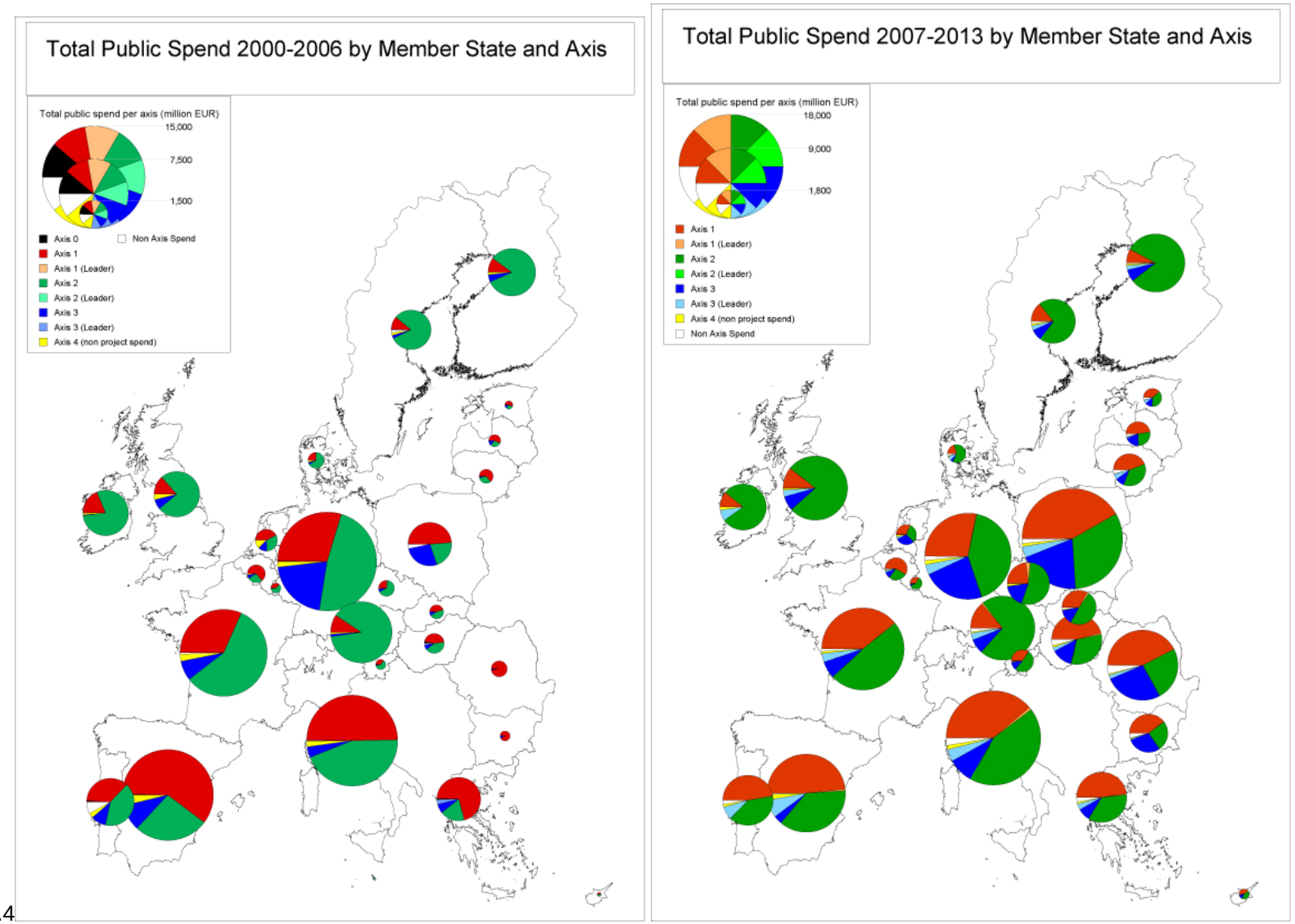

Total Public Spend 2000-2006 by Member State and Axis
Total public spend per axis (million EUR)
15,000
7,500
1,500
Axis 0
Non Axis Spend
Axis 1
Axis 1 (Leader)
Axis 2
Axis 2 (Leader)
Axis 3
Axis 3 (Leader)
Axis 4 (non project spend)
Total Public Spend 2007-2013 by Member State and Axis
Total public spend per axis (million EUR)
18,000
9,000
1,800
Axis 1
Axis 1 (Leader)
Axis 2
Axis 2 (Leader)
Axis 3
Axis 3 (Leader)
Axis 4 (non project spend)
Non Axis Spend

Figure 3.4

3.2.2.2 Intensities of total public spending, 2000-06 and 2007-13 compared

Looking at absolute spending by programme area can give a slightly misleading picture of relative resourcing between areas, because the territory and population of these areas vary considerably. Also, the time period is not entirely equivalent as between old and new MS, in that the EU-15, Bu and Ro had an uninterrupted programme period for the full seven years whereas the other new MS had two separate programming periods, the second of which was particularly short (2004-06).

Thus it is interesting to compare areas on the basis of a measure of the 'intensity of spend' – i.e. how much was spent per hectare of land, or per inhabitant, or per potential beneficiary, on average in a year. This should give a better basis for making some comparison of the relative level of resourcing for RD, between programme areas.

The intensity of spend was assessed by calculating average annual spend[17] in each programme area or Member State[18] for the 2000-06 programming period and 2007-13 period, expressing this per hectare of Utilisable Agricultural Area (UAA)[19], per agricultural holding[20] and per capita of those employed in the primary sector[21], for all programme areas for which these denominator characteristics were available, in 2002. For the 2007-13 period calculations, 2002 data were used as the denominator because this forms a (largely) consistent set. However, restructuring in the agricultural sector might be expected over time with fewer holdings and a smaller agricultural workforce. This means that the expected annual expenditure per holding and per worker in this period are likely to be under-estimated because we are using rather dated figures for holdings and workforce. Whilst UAA is considered more stable over time, there is nonetheless a trend towards gradual diminution of this area over time, meaning that the figures provided are also likely to be under-estimations in some cases. The results for both programming periods are presented in Table 3.2.

In 2000-06, average spending per hectare UAA was 2.6 times higher in the EU-15 than in the new MS and spend per capita of primary sector workforce was 69% higher. Spend per holding was 6.6 times higher. These differences are partly explained by the lower level and more restricted range of RD funding that was available to the new MS prior to accession, only under the SAPARD instrument (which applied 2000-04 for eight new MS and 2000-06 for Bulgaria and Romania).

The greatest intensity of spend per hectare UAA, 2000-06 occurred in a number of regions of Italy (particularly objective 1 regions), as well as Luxembourg, Austria and Malta. In most of these cases, relatively high spend per hectare is partly a function of small farm size, as well as Objective 1 status, in that the spend per holding is not especially high. Spend per capita of those working in the primary sector 2000-06 is highest in Luxembourg. However, the highest *annual* spends per capita are in Objective 1 / convergence regions such as Basilicata and some new German Länder, for example Sachsen Anhalt, Mecklenburg Vorpommern and

[17] Average spend is total spend divided by 7 years with the exception of Malta and Cyprus where the average spend is total spend divided by the 3 years over which rural development funding has been available.

[18] Data restrictions mean it is not possible to carry out this analysis for every programme area. The data presented are as disaggregated as possible.

[19] UAA is a proxy for eligible land area – in reality a slightly larger area might be eligible, since UAA doesn't include all forest land or common grazings.

[20] This is a proxy for the number of beneficiaries, since most, but not all, funding goes to primary sector businesses.

[21] Data on employment are for 2002 and are taken from Eurostat's regional economic accounts as employment in agriculture, hunting and forestry. Exceptions are Germany, England, Scotland and Wales where data also include employment in fishing and Northern Ireland and Romania where data are from Eurostat's regional labour market statistics and cover employment in agriculture, hunting, forestry and fishing.

Thuringen[22]. Other areas spending relatively high levels of funds annually on a per capita basis are Finland, Ireland and Sweden. All of Ireland had Objective 1 status (Objective 1 funds comprised 5.0% of total funding in Ireland), but the high figures may also reflect relatively high spend on the axis 2 measures in these areas, supporting landscape management in areas of otherwise relatively low population density. The greatest average spend per holding was in the German new Länder, 2000-06, as might be expected given the large farms in these regions. Spend per hectare UAA was higher than the EU average in these areas, but not significantly so.

Table 3.2: Intensity of total public spend by programme area, in Euro

Average annual spend…	**Per hectare**		**Per holding**		**Per capita employed in primary sector**	
	2000-06	**2007-13**	**2000-06**	**2007-13**	**2000-06**	**2007-13**
Austria	268.12	340.14	5,025.81	6,375.78	1,613.40	2,046.78
Belgium	43.08	68.82	1,298.53	2,074.44	1,157.80	1,849.63
Bulgaria	7.04	82.00	56.35	656.39	48.83	568.84
Cyprus	124.00	296.94	429.01	1,027.33	1,009.97	2,418.51
Czech Republic	23.34	142.24	1,851.83	11,285.63	395.51	2,410.37
Baden-Wurtemberg	*172.16*	*125.05*	*3,861.87*	*2,805.22*	*2,252.47*	*1,636.17*
Bayern	*144.81*	*109.48*	*3,511.25*	*2,654.64*	*2,266.28*	*1,713.39*
Berlin	*N/A*	*N/A*	*N/A*	*N/A*	*200.17*	*N/A*
Brandenburg	*131.15*	*148.76*	*25,980.51*	*29,469.10*	*4,315.08*	*4,894.50*
Bremen	*N/A*	*N/A*	*N/A*	*N/A*	*952.42*	*N/A*
Hamburg	*N/A*	*N/A*	*N/A*	*N/A*	*1,735.93*	*1,355.17*
Hessen	*101.59*	*82.55*	*3,168.75*	*2,575.00*	*1,637.08*	*1,330.32*
Mecklenburg Vorpommern	*109.46*	*122.16*	*28,545.96*	*31,858.03*	*4,583.31*	*5,115.09*
Niedersachsen	*67.54*	*78.71*	*3,152.49*	*3,673.86*	*1,479.23*	*1,723.86*
Nordrhein Westfalen	*52.86*	*74.88*	*1,511.22*	*2,140.89*	*660.13*	*935.19*
Rheinland Pfalz	*121.68*	*98.29*	*3,015.06*	*2,435.59*	*1,668.80*	*1,348.07*
Saarland	*129.49*	*109.02*	*6,111.65*	*5,145.53*	*2,398.82*	*2,019.62*
Sachsen	*186.82*	*188.46*	*21,039.84*	*21,224.47*	*3,596.71*	*3,628.27*
Sachsen Anhalt	*164.31*	*130.67*	*39,852.45*	*31,694.42*	*5,621.42*	*4,470.68*
Schleswig-Holstein	*57.50*	*64.68*	*3,191.35*	*3,589.92*	*1,404.04*	*1,579.39*
Thuringen	*176.13*	*161.21*	*28,062.44*	*25,684.08*	*4,394.68*	*4,022.22*
Germany	120.54	111.10	4,964.64	4,576.13	2,264.29	2,087.10
Denmark	29.20	44.65	1,596.90	2,441.74	892.24	1,364.28
Estonia	34.31	166.06	740.61	3,584.47	716.51	3,467.81
Spain	35.24	61.57	777.76	1,358.76	922.07	1,610.86
Finland	193.73	331.26	5,683.91	9,719.02	4,487.77	7,673.73
France	58.52	61.41	2,649.25	2,779.80	1,957.68	2,054.15
England	*14.00*	*44.60*	*803.20*	*2,559.77*	*718.30*	*2,289.19*
Scotland	*27.40*	*68.31*	*5,157.38*	*12,859.48*	*2,215.39*	*5,523.88*
Wales	*72.33*	*N/A*	*2,847.86*	*N/A*	*2,905.14*	*N/A*
Northern Ireland	*74.72*	*43.60*	*2,794.55*	*1,630.66*	*2,424.23*	*1,414.57*
UK	23.01	46.87	1,458.42	2,970.74	1,222.46	2,490.09

[22] Note that where Objective 1 areas were smaller than the Guarantee-fund programme area, these Objective 1 funds are here dispersed across more UAA, holdings and population than was actually the case in practice.

Average annual spend…	Per hectare		Per holding		Per capita employed in primary sector	
	2000-06	2007-13	2000-06	2007-13	2000-06	2007-13
Greece	153.43	228.72	779.25	1,161.66	764.77	1,140.08
Hungary	25.88	169.34	145.67	952.98	484.34	3,168.60
Ireland	118.95	140.63	3,844.91	4,545.77	4,322.73	5,110.68
Abruzzo	*289.27*	*128.98*	*1,940.87*	*865.41*	*3,395.42*	*1,513.99*
Basilicata	*255.41*	*167.15*	*1,898.66*	*1,242.57*	*5,919.21*	*3,873.80*
Bolzano	*123.15*	*161.06*	*1,559.56*	*2,039.60*	*2,232.31*	*2,919.43*
Calabria	*212.35*	*283.87*	*710.74*	*950.11*	*1,362.94*	*1,821.97*
Campania	*223.77*	*477.48*	*731.80*	*1,561.50*	*1,239.17*	*2,644.12*
Emilia Romagna	*102.25*	*124.26*	*1,255.51*	*1,525.80*	*1,430.60*	*1,738.58*
Friuli Venezia Giulia	*149.23*	*161.40*	*1,291.18*	*1,396.44*	*1,804.08*	*1,951.16*
Lazio	*107.32*	*129.09*	*596.27*	*717.21*	*1,186.63*	*1,427.30*
Liguria	*677.86*	*785.04*	*1,208.90*	*1,400.04*	*2,401.62*	*2,781.35*
Lombardia	*94.42*	*131.03*	*1,504.86*	*2,088.33*	*1,304.57*	*1,810.38*
Marche	*96.28*	*128.20*	*885.95*	*1,179.75*	*1,868.54*	*2,488.19*
Molise	*92.13*	*130.40*	*720.62*	*1,019.92*	*1,653.80*	*2,340.66*
Piemonte	*88.63*	*119.15*	*1,175.31*	*1,580.12*	*1,467.96*	*1,973.57*
Puglia	*95.69*	*N/A*	*431.05*	*N/A*	*1,059.49*	*N/A*
Sardinia	*114.91*	*155.40*	*1,538.09*	*2,080.16*	*2,934.31*	*3,968.45*
Sicily	*160.89*	*236.93*	*698.39*	*1,028.47*	*2,009.18*	*2,958.79*
Toscana	*104.28*	*148.12*	*940.06*	*1,335.19*	*1,674.58*	*2,378.44*
Trento	*181.99*	*243.91*	*1,049.77*	*1,406.89*	*2,482.23*	*3,326.67*
Umbria	*164.94*	*300.92*	*1,368.81*	*2,497.27*	*3,839.73*	*7,005.24*
Valle d'Aosta	*176.18*	*467.11*	*1,874.10*	*4,968.72*	*3,823.17*	*10,136.19*
Veneto	*115.01*	*157.02*	*656.07*	*895.72*	*1,381.07*	*1,885.54*
Italy	136.12	165.30	909.08	1,103.97	1,747.87	2,122.57
Lithuania	24.12	123.99	230.87	1,187.03	251.39	1,292.52
Luxembourg	327.26	409.33	17,119.07	21,412.03	10,485.43	13,114.87
Latvia	22.12	78.09	202.46	714.86	386.87	1,366.02
Malta	235.92	*N/A*	231.63	*N/A*	16.57	*N/A*
Netherlands	32.87	33.86	778.94	802.62	588.59	606.48
Poland	34.40	170.50	228.46	1,132.34	212.99	1,055.66
Portugal	154.18	190.69	1,598.56	1,977.17	935.55	1,157.12
Romania	6.35	95.84	19.73	297.69	25.05	377.83
Sweden	120.70	167.54	5,376.23	7,462.27	3,918.01	5,438.25
Slovenia	77.57	340.33	489.10	2,145.97	377.72	1,657.27
Slovakia	27.41	171.27	816.83	5,102.92	583.08	3,642.62
EU-15 average	**139.30**	**160.13**	**5,063.47**	**4,717.46**	**2,485.38**	**3,324.45**
NMS average	**53.54**	**166.96**	**453.55**	**2,553.42**	**375.74**	**1,947.82**
EU average	**121.34**	**163.02**	**4,091.51**	**3,801.90**	**1,995.44**	**2,742.03**

It is also interesting to note those areas with a particularly low intensity of spend 2000-06, indicating a lower level of RD resourcing:

- The programme areas with *less than €30 per hectare UAA/year* for RD include Denmark, England and Scotland, as well as seven of the new Member States.
- Those areas with *under €500 per holding/year* include nine of the new Member States (and the new MS average as a result), the exceptions being Czech Republic, Estonia and Slovakia. The only EU-15 region in this category was Puglia. This tends to reflect areas with particularly large numbers of very small holdings (although not all such areas appear in this category).
- Those areas where there is *less than €750 per person employed in the primary sector* for RD include all new Member States except Cyprus, as well as Berlin, Nordrhein-Westfalen, England and the Netherlands. In some cases these figures reflect little agricultural activity (Berlin), in others a relatively low level of support (England and the Netherlands, for example) and in some small farm sizes resulting in a greater distribution of total funds across those employed in the agricultural sector (the new Member States where the situation is exacerbated by a relatively low level of support, particularly prior to accession).

Whilst average spend per hectare UAA is planned to be marginally higher in the new MS (minus Malta) compared to the EU-15 in 2007-13, spend per holding and per capita is significantly higher in the EU-15. This reflects these countries' generally larger holdings and fewer people employed in the primary sector. There are some exceptions to these general trends, for example, expected spend per holding 2007-13 in the Czech Republic is relatively high as a result of some very large farms skewing the sample average. The regions expecting to spend the largest amount per hectare UAA 2007-13 include Liguria, Campania and Valle d'Aosta. Outside Italy, relatively large amounts per hectare are expected to be spent in Luxembourg, Slovenia, Austria and Finland. Again, generally small farm sizes appear to be influential in this pattern. Although Finland and especially Luxembourg also expect to spend relatively high amounts per holding and per person employed in agriculture, spending per holding is expected to be relatively high in Austria, whereas spending per person employed is not. Expected spend per holding is high, as would be anticipated, in regions with very large farms including, for example, a number of new German Länder (Mecklenburg-Vorpommern, Sachsen Anhalt and Brandenburg) as well as Scotland. In per capita terms, the regions where expenditure is expected to be relatively high include Luxembourg, Valle d'Aosta, Finland and Umbria.

The main point of difference in expenditure intensities in the new period, as compared to the old, is greater similarity in expected spend per hectare UAA between the old and new Member States. There is also a reduction of the gap in spending per holding and per person employed in the primary sector between these two groups, for the 2007-13 period. Also, while intensity of spend for all 3 axes increases significantly in the new MS between the two programme periods, it increases only slightly per hectare, decreases slightly per holding and increases significantly only per agricultural employee, among the EU-15. However, the missing data should be borne in mind, as this may have an impact on the comparison.

The differences in expenditure intensity at the individual programme level, between periods, illustrate how for some regions, the new programme period represents a significant decrease in overall public funding, even before accounting for inflation, for EU RD measures. This is the case per hectare UAA, per holding and per agricultural work unit for the same 7 German Länder (and for the average for all Germany), as well as for 2 Italian regions (Abruzzo and Basilicata), and Northern Ireland, in the UK. By contrast, the intensities of spend for most of the accession states grow significantly between the two programming periods.

The available data suggest that average spend overall at the EU level is expected to be higher on a per hectare basis in the 2007-13 programming period than in the previous period (€163.02 compared to €121.34) and on a per capita basis (€2,742.03 compared to €1,995.44). However, on a per holding basis expected payments will be smaller (€3,801.90 compared to €4,091.51). This is an apparent paradox because the same data on UAA, holdings and workforce are used for both periods so one would expect an increase against all three denominators, between the two periods. However, looking more closely, the lower spend per holding is apparently explained by farm structure in the regions where data are missing, for the second period.

3.2.2.3. Total EU expenditure, 2000-06 and 2007-13

As would be expected, the pattern of total EU spending among the Member States is similar, but not identical, to that already presented for total public spending. The greatest expenditure of EU funds in 2000-06 was in Germany, Spain and Italy with €8.5 billion, €7.9 billion and €6.9 billion respectively. However it is worth noting that some 89% of total EU funds were spent in the EU-15, reflecting a slightly higher level of co-financing by national and regional governments within the EU-15 as the proportion of total public funds spent here was 91%. Together, Germany, Spain, Italy and France accounted for 55% of total EU expenditure, as compared to 57% of total public expenditure.

Planned EU expenditure over the 2007-13 programming period again shows strong similarities with the pattern of total planned public expenditure, for the same period. Thus, the major beneficiaries of EU funds in this period are Poland with €13.2 billion, Germany with €8.1 billion and Romania with €7.5 billion. The EU-15 countries account for 62% of total EU spending, down from 89% in the 2000-06 programming period.

Perhaps the most interesting feature in comparing EU funding for RD between programming periods is to note those Member States who experienced a much lower or much higher than average increase in RD budget, and those whose 2007-13 budgets have been reduced, by comparison with what they received during 2000-06. All new Member States received a substantially higher than average increase in RD funding with the largest increases in Bulgaria and Romania, albeit from low bases. Amongst the EU-15, only the UK appears to have had a higher than average increase in allocation between the periods. The following Member States received a more than 10% cut in allocation of EU RD funding in the 2007-13 period, compared with 2000-06 (in real terms): Spain (but note 8 RDPs were missing), Finland, Ireland, Germany (national network missing), Luxembourg and the Netherlands.

The balance of EU spend by axes was presented in table 3.1. In 2000-06, Axis 2 is dominant accounting for 49.6%, which perhaps reflects the fact that it includes the only measure in the regulation which is compulsory for all MS, namely agri-environment aid. Some €19.6 billion was spent under Axis 1 (37.2%) with €5.3 billion (10.0%) spent under Axis 3 and €1.1 billion (2.1%) under Axis 4 non-project spending while LEADER projects contributed €112 million to the main axis 1-3 totals. The remaining €0.6 billion was largely accounted for by non-Axis spending on monitoring and technical assistance.

In respect of planned EU expenditure 2007-13, Axis 2 will still account for the largest proportion of funds, partly because it has the largest minimum spend (25%) under the EAFRD regulation, with a planned spend of €38.5 billion, 44.5% of the total. This represents an increase in real terms of 29% from the 2000-06 sum for axis 2, although the Axis total represents a slightly smaller proportion of total EU funds in the new period. Spend under Axis 1 will also increase by 29% in real terms, to €30.2 billion (34.8% of total planned spending), which is again a decreased share of total funding.

Spending under Axis 3 will be almost 2.5 times as great (in real terms) in the 2007-13 period as it was in 2000-06, at €15.1 billion, and will account for 17.4% of total spending, which is also a substantial increase in its relative importance compared to the 2000-06 period. Spending under Axis 4 (LEADER) non-project costs should amount to €1.1 billion, 1.3% of the total. This is a slightly higher amount of money than was spent in the 2000-06 period, but it represents a lower proportion of the total allocation. Finally, planned spending under axis 4 LEADER projects is significantly higher than in 2000-06, contributing almost €3.9 billion to the total planned spend under axes 1-3, which represents around 4.5% of this total.

As with total public expenditure, the proportion of total EU spend per Axis differs markedly by Member State. In the 2000-06 programming period, in general terms, EU-15 Member States spent a high proportion of total rural development funds under Axis 2 (although there are exceptions such as Spain, Belgium and Greece, for example). In contrast, new Member States tended to focus expenditure elsewhere, typically Axis 1, although also Axis 3 in the case of Poland. To some extent this pattern will be affected by the fact that few SAPARD programmes included agri-environment schemes and none offered LFA aids, in the new Member States, and thus the most significant measures in Axis 2 were not available to them for over half the total programming period. However, the same distinction in spending patterns remains generally the case in the 2007-13 period, where again a higher proportion of planned expenditure tends to fall under Axis 2 in the EU-15 Member States and the new Member States tend to focus relatively more on Axis 1 and Axis 3. Spain, Portugal and Greece remain exceptions to the general trend, as three 'cohesion' MS with relatively significant levels of rural poverty and high proportions of convergence regions, that have tended to prioritise investment in modernising agriculture and rural infrastructure (e.g. irrigation, roads), in their RDPs.

Table 3.3 contrasts EU-15 and new MS priorities in spending. In the 2000-06 period, the EU-15 together spent more than half of total rural development funds under Axis 2 (51.9%), 35.5% under Axis 1, 9.3% under Axis 3 and 2.3% under Axis 4 non-project spend. In contrast, the new Member States spent 51.3% of total funds under Axis 1, 30.3% under Axis 2 and 15.7% under Axis 3 (all these proportions include LEADER projects for the relevant axes). In the 2007-13 period this general pattern is maintained, although the relative importance of Axis 3 increases in the EU-15, mainly at the expense of Axis 1, whilst in the new Member States the relative importance of Axis 1 declines while that of the other axes increases. These could suggest an increasing maturity among programming authorities in achieving a balance of targets and devising appropriate menus of measures to pursue them; or it may be a simple result of the minimum spend thresholds which now apply, for each axis.

Table 3.3: EU Spend 2000-13 proportions by Axis, compared for new MS and EU-15

	Axis 1 (includes LEADER projects)		**Axis 2** (includes LEADER projects)		**Axis 3** (includes LEADER projects)		**Axis 4** (non-project)	
	2000-06	**2007-13**	**2000-06**	**2007-13**	**2000-06**	**2007-13**	**2000-06**	**2007-13**
EU-15	35.5	21.1	51.9	51.7	9.3	14.1	2.3	1.6
New MS	51.3	40.0	30.3	34.4	15.7	22.0	0.0	1.0

Note: the residual percentage is non-Axis spend.
Germany, Spain, UK, Italy, Portugal and Malta have missing data in 2007-13.

This analysis does, however, mask some important exceptions at the Member State level, which are illustrated in Figure 3.5. Those Member States spending higher proportions of total rural development funds under Axis 2 appear in the quadrants to the right, and those spending the least are in the quadrants to the left. Proportional spending on Axis 1

determines whether a Member State appears in the top or bottom two quadrants. Sweden and Austria spent the most on Axis 2 as a proportion of total funds (85% each). From the new Member States, Malta, the Czech Republic and Slovenia appear in the lower right quadrant as their proportional spend under Axis 2 was high in this programming period and that under Axis 1 relatively low. Among the EU-15, Greece, Spain, Belgium and the Netherlands spent relatively high proportions of total funds under Axis 1 and relatively low proportions under Axis 2. However, the EU-15 average is in the bottom right quarter, but only just so, reflecting a reasonable degree of diversity among these MS; whereas the new Member States' average is firmly in the top left quarter, suggesting a greater degree of homogeneity in patterns of spend between these MS. It is likely that the more limited number of available measures under SAPARD, as compared to Regulation 1257/99, has influenced the result for 2000-06, but it should not be a direct factor for 2007-13.

The differential spend could reflect a certain rationale of perceived need: those Member States with relatively fragmented or poorly-developed agricultural sectors concentrate on restructuring measures under Axis 1, while those with relatively concentrated sectors focus spending on agri-environment measures. It is also possible that more experience with the programme approach, and the wider availability of environmental data in the EU-15, enables these MS to allocate resources to more fully reflect environmental needs than was possible for the new Member States.

The most striking observation when comparing the 2000-06 data in Figure 3.5 with that for 2007-13 (figure 3.6) is that the data run less from top left to bottom right, but more horizontally from left to right. This reflects a change from a more polarised use of these axes to a more even distribution, at least partly as a result of the imposition of minimum spend proportions.

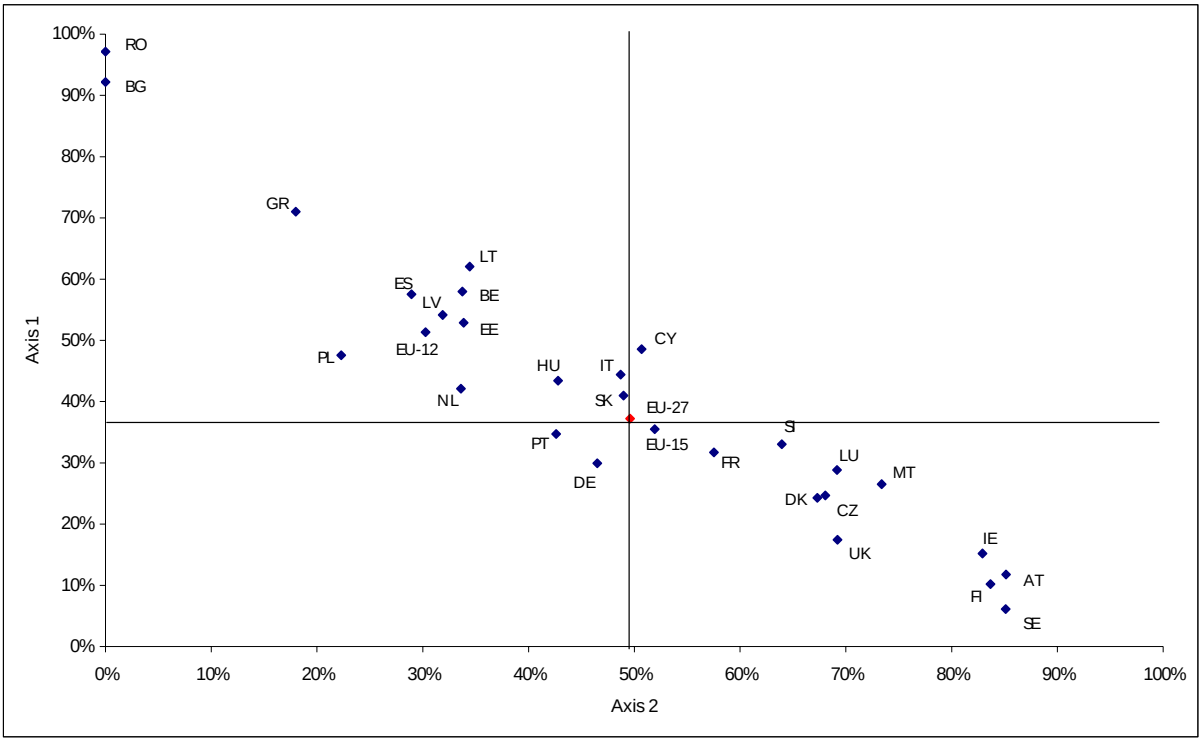


Figure 3.5. Proportion of total EU spend on Axis 1 and Axis 2 (including LEADER projects targeting these goals), 2000-06

Note: EU-12 = new Member States, 2004 and 2007

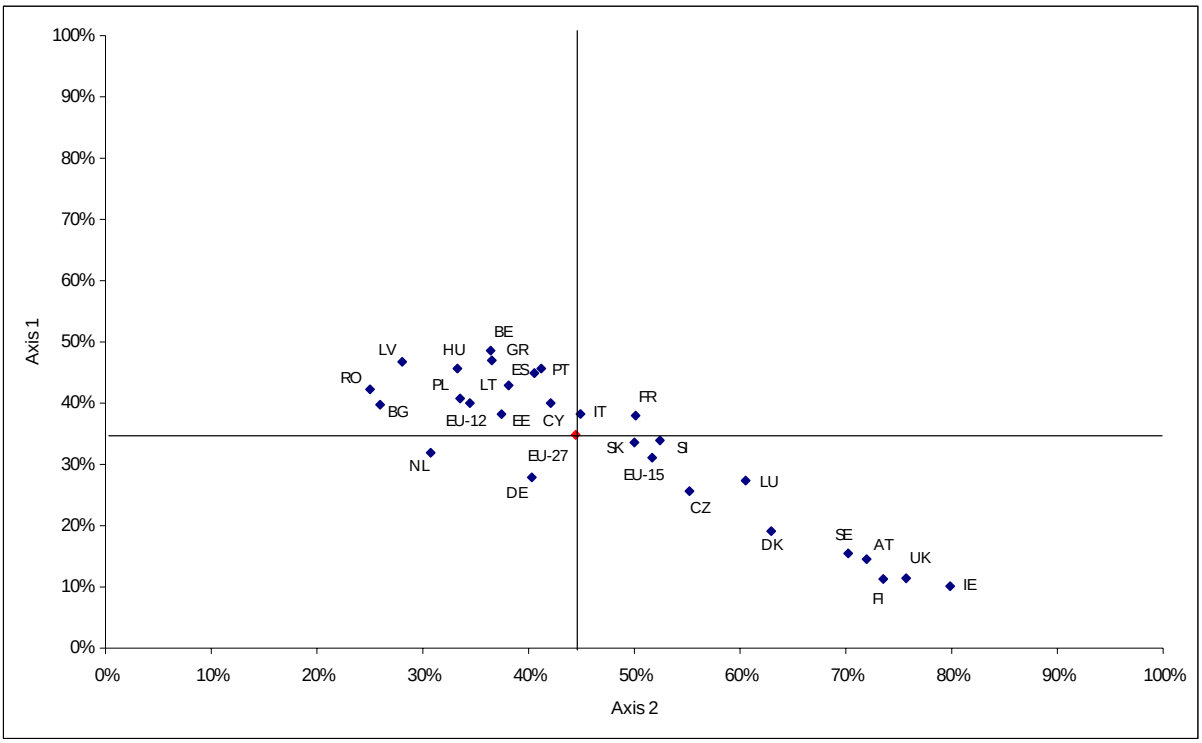


Figure3.6: Proportion of total planned EU spend on Axis 1 and Axis 2 (including LEADER projects targeting these goals), 2007-13
Note: Germany, Spain, UK, Italy, Portugal and Malta have missing data.

The following text and figures examine the proportion of spend under Axis 1 and Axis 2 for the 2000-06 and 2007-13 programming period at the regional level for, respectively, Germany and Italy (again, including LEADER project spending within these totals). It is not possible to present the same analysis for Spain because although this Member State had regional programmes in both periods, it also had a national level programme in 2000-06 under which a particular selection of measures was delivered. Thus, for example, the bulk of spending in 2000-06 under Axis 2 (89.5%) was delivered under the national programme and its regional allocation is not recorded. Also, we lacked 2007-13 data for 8 Spanish regions.

In Germany, there is a high degree of heterogeneity in both periods in that the proportion of spend under Axis 1 and Axis 2 is highly variable around the German average. This suggests that the needs of the different Länder are different and that the RDPs are differentiated from one another according to these needs. In some Länder the pattern of spend is more similar to that in the new Member States with a higher proportion of funds spent on Axis 1 measures, for example, many of the new Länder such as Mecklenberg Vorpommern, Sachsen Anhalt and Thuringen. In others, typically old Länder, the pattern of spend is more similar to that in other EU-15 Member States where the environment is a high priority, for example, Bayern and Baden-Wurtemberg in 2000-06. The new Länder average falls in the top left quarter of the figure where the focus is more on Axis 1 than Axis 2, while the old Länder average is in the bottom right quadrant where the focus is more on Axis 2. In the 2007-13 period, the data are more tightly clustered around the German average showing a reduction in regional diversity. This is likely to be at least partly the result of the minimum spend proportions per Axis. It is also worth noting that the proportional spend under Axis 1 is now almost identical in the average for the old and new Länder, although the proportion planned to be spent under Axis 2 remains considerably higher in the old Länder

In Italy, although the regional spend under Axis 1 and Axis 2 (including LEADER projects) is fairly similar in many regions in both periods, there are also notable examples of difference. This is mainly in the Objective 1/convergence regions of Campania, Calabria, Sicily and Puglia, but also in Liguria, where the focus of spend is much more firmly under Axis 1 (both periods). In Basilicata (an Objective 1/ convergence region), Abruzzo and Valle d'Aosta (2000-06) conversely, the spend under Axis 2 is high and spend under Axis 1 low. The pattern is similar in the 2007-13 programming period, although the spread of data is more clustered around the Italian average, at least partly as a result of the minimum Axis spend requirements.

Considering the total EU axis spends at Member State level, the absolute level of expenditure/planned expenditure decreases between the funding periods in a number of cases, for example, Finland (for axes 1, 2 and 4 non-project), and Ireland and Luxembourg (for axes 1 and 2). In the cases of Germany and Spain, whilst absolute decreases in funds are indicated from these figures, it is difficult to be sure that these are real decreases as a result of missing programme data for the 2007-13 programming period.

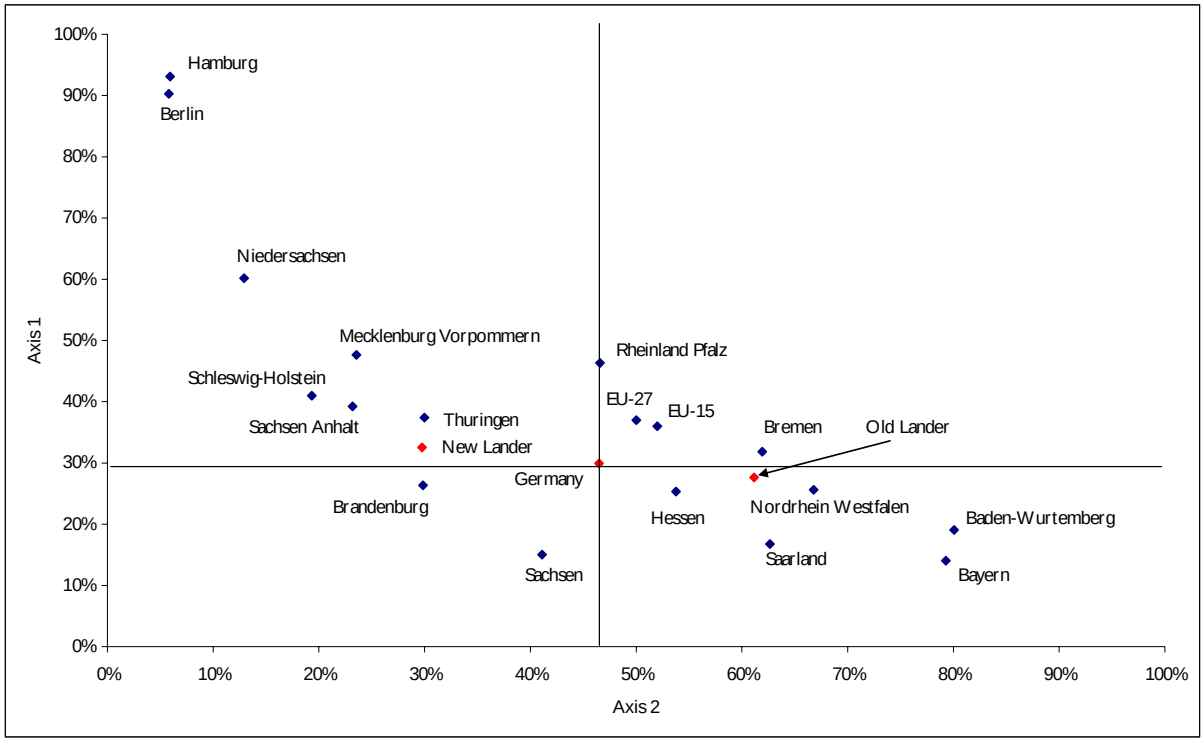


Figure 3.7: Proportion EU spend on Axis 1 and Axis 2 (including LEADER projects targeting these goals) 2000-06, German regions

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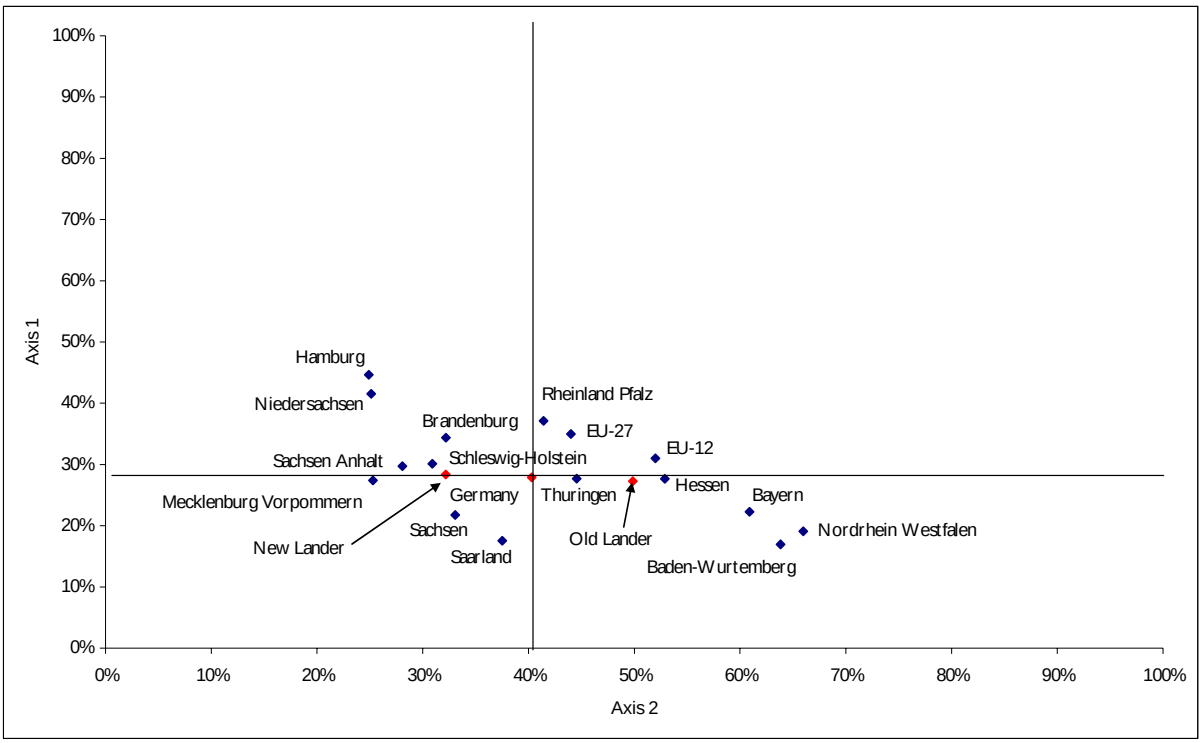

Figure 3.8: Proportion of planned EU spend on Axis 1 and Axis 2, 2007-13 (including LEADER projects targeting these goals), German regions
Note: Data are missing for the national framework programme, for this period.

3.2.2.4. Spending by funding instrument, 2000-06

Figure 3.9 gives a breakdown of total spend by funding instrument for each Member State for the 2000-06 period. The most significant fund was Guarantee which accounted for 62% of the total. Objective 1 (Guidance) accounted for just over a quarter of the total (26%), IFDR for 5%, SAPARD 4% and Leader+ 2%. In part, this finding reflects the availability of the funds, with Guarantee funding only available in the EU-15 and SAPARD and IFDR only in the new MS. As might be expected, Germany, France and Italy absorbed large shares of Guarantee funding with 47% of the total between them. However, almost all funding in Luxembourg, Austria and Denmark was drawn from this fund (99%, 98% and 96% respectively). Guidance funds dominate the poorer regions of the EU-15. Just over a fifth (23%) of Leader+ funds were spent in Spain with 13% in Germany, 12% in Italy and 11% in France.

43% of total SAPARD funds were spent in Poland, 21% in Romania and 9% in Bulgaria. This may reflect the fact that SAPARD was the only relevant EU funding source available to Bulgaria and Romania for the full programming period. By contrast, SAPARD represented only 35% of total funding in Poland, 34% in Estonia and 33% in Lithuania, reflecting relatively significant spend on RD between 2004 and 2006, after accession. In many countries the largest share of SAPARD funding was given to 'investment in agricultural holdings' and 'improving processing and marketing of agricultural and fishery products', which were used to help bring agriculture up to EU standards, reflecting the perceived need to modernise. Poland was the main beneficiary of IFDR money (48% of total), and Czech Republic and Hungary accounted for 12% each. This indicates significant spending on agri-environment, LFA, early retirement and/or farmland afforestation programmes in this period.

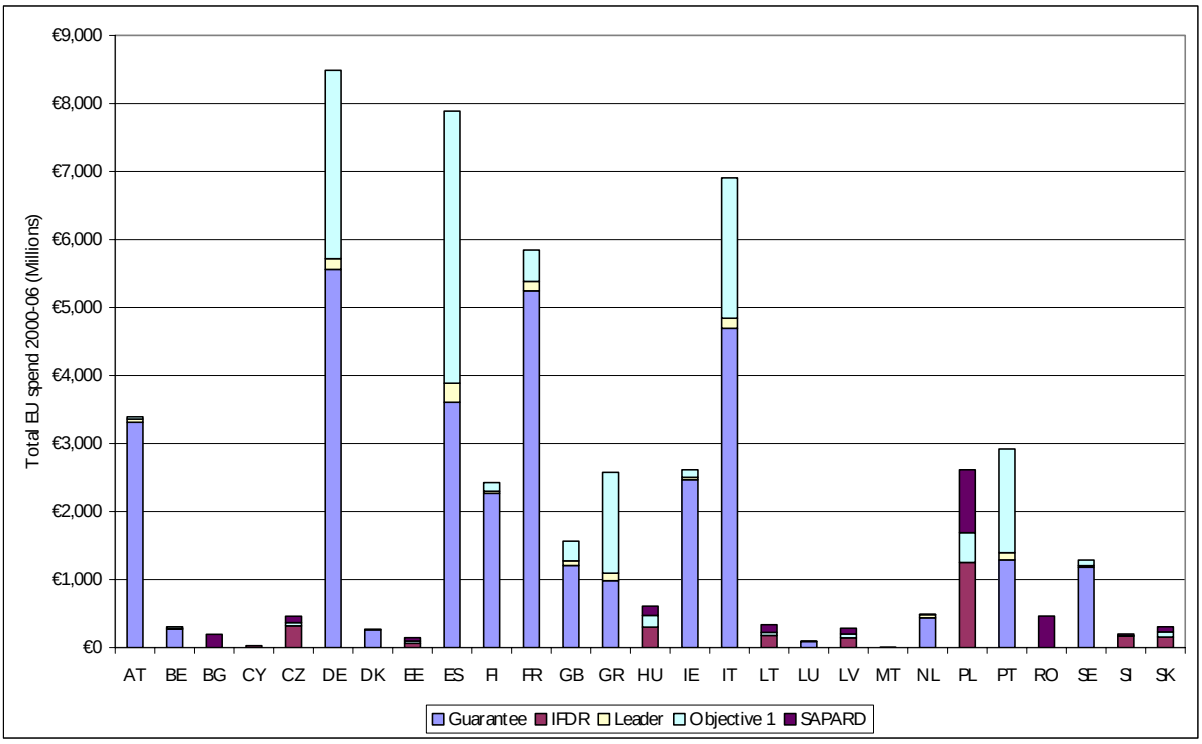

Figure 3.9 Total EU Spending by funding instrument, 2000-06

3.2.2.5. Analysis of EU spend within each Axis

By analysing EU spend in axes, as opposed to total public spend, these sections show how EU funds were disbursed or are planned for use in programmes. However, different co-financing rates apply to programme areas (due to convergence/objective 1 status) and between measures and axes (some standardised, some negotiated within individual programmes – for example, where state aid 'top ups' are involved). As a result, this approach does not enable a comparison of the scale of total public funds available to potential beneficiaries, in each programme area, which will not match exactly the pattern presented in this section.

Axis 1

Table 3.4 sets out total spending by measure under Axis 1 at the EU-27 level for the 2000-06 and 2007-13 periods. The greatest share of funds in both periods is for investment in agricultural holdings (22% of Axis 1 in the 2000-06 period and 30% planned for the broadly equivalent 'modernisation of agricultural holdings' measure in 2007-13). The increased share in 2007-13 largely reflects the spending priorities of the new Member States in particular, and the increased funding available to them.

Table 3.4: Axis 1 total EU spending by measure, 2000-06 and 2007-13, (€ m)

Measures	2000-06	%	2007-13	%
Vocational Training (2007-13 'and information')	245	1.2	853	2.8
Setting up of young farmers	1,683	8.6	2,538	8.4
Early retirement (pre-2000 contracts)	1,083	5.5	n/a	n/a
Early retirement (post-2000 contracts)	648	3.3	2,699	8.9
Use of advisory services (from 2004 only)	29	0.1	607	2.0
Setting up farm relief and farm management services	156	0.8	128	0.4
Investments in/modernisation of agricultural holdings	4,353	22.2	8,948	29.6
Improvement of economic value of forests (2007-)			688	2.3
Improving processing and marketing of agricultural products (2000-06) / adding value to agricultural **and forestry** products (2007-13)	3,309	16.9	5,080	16.8
Marketing of quality agricultural products	236	1.2	n/a	n/a
Co-operation for developing new products (2007-)	n/a	n/a	383	1.3
Agricultural (2007 **and forestry**) infrastructure	1,792	9.1	4,855	16.1
Land improvement (2000-06)*	161	0.8	n/a	n/a
Reparcelling (2000-06)*	950	4.8	n/a	n/a
Agricultural water resources management (2000-06)*	1,764	9.0	n/a	n/a
Restoring and preventing natural disasters (2000-06)/ restoring agricultural production potential (2007)	384	2.0	796	2.6
Meeting standards	385	2.0	140	0.5
Quality food schemes	8	0.0	278	0.9
Forestry – other measures (2000-06 only)	2,249	11.5		
Producer groups (2004-, new MS only)	12	0.1	375	1.2
Semi-subsistence farming (2004-, new MS only)	137	0.7	1,010	3.3
Information and promotion activities			232	0.8
Advisory and extension services, Bu and Ro (2007-)			132	0.4
LEADER axis 1 type spending	15	0.1	449	1.5
Other miscoded measures for axis 1	20	0.1	0	0
Axis 1 Total	**19,620**	**100.0**	**30,191**	**100.0**

* from 2007-13 these measures were covered by the agricultural infrastructure measure
Note: Germany, Spain, UK, Italy, Portugal and Malta have missing data for 2007-13.

The Community Strategic Guidelines on rural development 2007-13 emphasise the importance of developing human capital. It is therefore interesting to assess the extent to which Member States have acted upon this by increasing the allocation of funds to this aim, among those within axis 1. Axis 1 measures from both programming periods were therefore assigned to one of four groups describing their main purpose, as presented in table 3.8. For this purpose it was decided to classify only those measures which directly develop human skills and capacities as promoting 'human capital', and not to include intergenerational transfer mechanisms, because they do not always generate these attributes.

Analysing expenditure using these categories, human capital measures accounted for 2.3% of total EU Axis 1 spending in the EU-27 in 2000-06; this increases to 9.0% in the 2007-13 period. Spending on physical capital accounts for almost half of all Axis 1 spending in both periods (49.9% and 48.8% respectively). Measures related to market-orientation absorbed 18.1% and 21.5% of total Axis 1 spending in 2000-06 and 2007-13 respectively. It is possible that the increase in human capital spending might be related to the relatively high(er than before) explicit priority given to this in the Community Strategic Guidelines.

Table 3.5 Axis 1 human capital, physical capital and market-orientation measures

	2000-06	2007-13
Human capital	• Vocational Training • Use of advisory services (2004 Art 33) • Setting up farm relief and farm management services (Art 33) • Producer groups (IFDR)	• Vocational training and information actions • Use of advisory services • Setting up of management, relief and advisory services • Cooperation for development of new products • Information and promotion activities • Producer groups • Provision of farm advisory and extension services in BG and RO
Physical capital	• Investments in agricultural holdings • Agricultural infrastructure (Art 33) • Land improvement (Art 33) • Reparcelling (Art 33) • Agricultural water resources management (Art 33) • Restoring and preventing natural disasters (Art 33) • Meeting standards (2004 Art 33)	• Modernisation of agricultural holdings • Infrastructure related to the development and adaptation of agriculture and forestry • Restoring agricultural production potential • Meeting standards based on Community legislation
Market-orient-ation	• Improving processing and marketing of agricultural products • Marketing of quality agricultural products (Art 33) • Quality food schemes (2004 Art 33)	• Improvement of the economic value of forests • Adding value to agricultural and forestry products • Participation of farmers in food quality schemes • Implementing local development strategies. Competitiveness
Other	• Early retirement • Installation of young farmers • Semi-subsistence farming • other forestry • LEADER axis 1-type projects	• Early retirement • Installation of young farmers • Semi-subsistence farming • LEADER measure 411

Note: other forestry 2000-06 was not classed as physical capital, since these aids included funding for marketing as well as management.

An examination of spending in these categories by Member State in 2000-06 shows that EU-15 MS spent a slightly larger share of Axis 1 EU spending on human capital measures than the new MS (2.3% compared to 1.7%). The new MS spent proportionally more on physical capital (57.7% compared to 48.5%) and market-orientation measures (22.3% compared to 17.4%). This may reflect greater perceived need in new Member States to prioritise restructuring and market-orientation, in order to compete effectively in the single market. The emphasis upon physical capital reflects large sums devoted to farm modernisation.

Relatively rich (i.e. non-convergence) Member States (e.g. UK, Sweden) spent proportionally the most on human capital measures, 2000-06, and typically less on physical capital, which tends to dominate spending in convergence Member States. Perhaps surprisingly, Germany spent just 0.6% of Axis 1 funds on human capital measures and several Member States (including Greece, Ireland and Portugal) apparently spent nothing. However, given the availability of ESF funds for a broader range of (non- vocational) training activities (within Objective 1 programmes), it would be wrong to assume that these farmers received no EU training aid.

Some EU-15 Member States did spend high proportions of Axis 1 EU funds on physical capital measures: the Netherlands, Luxembourg and Germany, for example. In the case of the Netherlands, however, the programme document clarifies that the purpose of this spending was mainly to enhance the environmental performance of holdings, rather than simply to promote modernisation. This may be a rationale which applies more widely to situations where relatively prosperous MS decide to spend money on farm investment. It reflects the likelihood that because such measures benefit the general public perhaps more than the farmer, they would not occur so widely without some element of public funding.

Large differences in emphasis at the regional level suggest that targeting of measures is taking place within Member States. This can be explored for the regions of Germany and Italy. However, this shows that for Germany, the proportion of funds spent under Axis 1 on human capital measures does not vary very much between regions, although the proportion of funds spent on physical capital and market-orientation measures does. Greater regional difference in proportion of spend occurred in Italy, although again, less so in relation to human capital measures. Convergence regions[23] spent proportionally more on physical capital measures and less on market-orientation measures.

Figure3.10 plots proportional spend 2000-06 on physical capital against human capital and market-orientation measures combined for Member States, countries/regions of the UK and Belgium, new and old Länder in Germany and convergence/non-convergence regions in Italy. Figure 3.11 does this for planned expenditure, 2007-13. Member States/regions in the bottom right quadrant spend in favour of human capital and market-orientation measures.

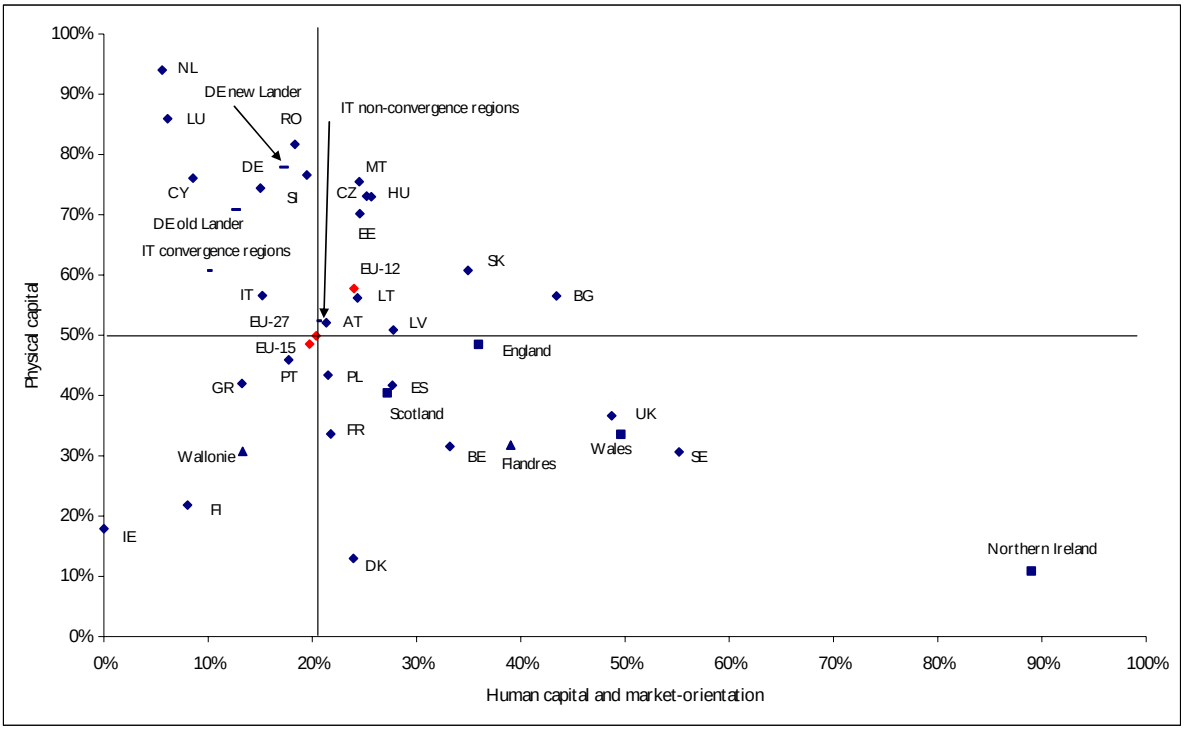

Figure 3.10: Proportion EU funds spent on physical capital versus human capital and market-orientation measures (2000-06)
Note: EU-12 = new Member States, 2004 and 2007

[23] The Italian convergence regions are Basilicata, Calabria, Campania, Puglia and Sicily.

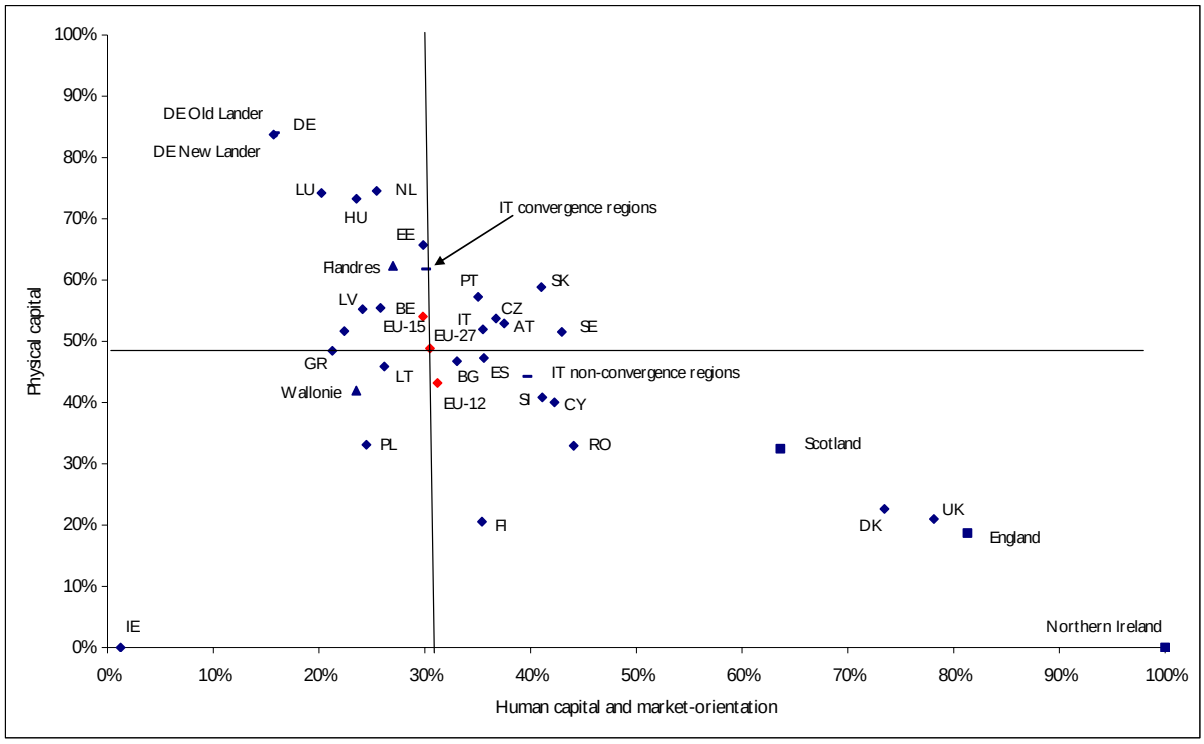

Figure 3.11: Proportion EU planned spend on physical capital versus human capital and market-orientation measures (2007-13) Note: Data for one region in Italy is missing, as are data for national frameworks in both Germany and Italy and 8 regions in Spain

Spending on human capital measures will account for a greater proportion of total planned expenditure at the EU-27 level in 2007-13 than in the previous period. Also, spend on these measures is proportionally more significant in the new MS than in the EU-15, the reverse of the situation in the 2000-06 period. Whilst the proportion of planned spending on physical capital measures at the EU-27 is comparable to that in the previous period, these types of measures are more important proportionally in the EU-15, which is again a reversal of the previous position. Finally, proportional spending on market-orientation measures is slightly higher at 21.5% for the EU-27 compared to 18.1% in the 2000-06 period.

These changes in the relative proportions of spending are, of course, influenced by the planned expenditure on other Axis 1 measures; notably support for young farmers and early retirement, which are significant in a variety of MS. These measures will account for 25.6% of Axis 1 in the new MS and 16.1% in the EU-15, 2007-13. In 2000-06 these measures were more significant in proportional terms in the EU-15, but less important in the new MS.

In sum, the greatest use of EU Axis 1 funds relates to investments in agricultural holdings and the importance of these measures increased between the two periods largely as a result of the spending priorities of the new Member States. Spending on physical capital accounts for just under half of total Axis 1 spending in both periods. In line with the Community Strategic Guidelines for rural development 2007-13, spending on human capital measures and market-orientation measures increased in relative importance over the period. Generally, more wealthy Member States tend to spend more on human capital measures whilst poorer ones (identified by Convergence status) focus on physical capital measures.

Axis 2

EU spending by measure under Axis 2 over the 2000-13 period is presented in Table 3.6. Expenditure relating to new agri-environment commitments accounted for 40% of total EU expenditure over the 2000-06 period, under Axis 2. Additionally, some 18% of total EU expenditure related to agri-environment agreements already entered in to. Payments to Less Favoured Areas and Areas with Environmental Restrictions drew 31% of total Axis 2 funds. Total agri-environment payments in the 2007-13 period are expected to account for 49% of total Axis 2 funds, a lower share than the 2000-06 period, but representing an absolute increase in overall EU funding of just over €3 billion or 25%. Less-Favoured Area (LFA) payments will account for 34% of the total in 2007-13, compared with 31% in the 2000-06 period, an increase of 64% in absolute funding.

In the late 1990s and in the 2000-06 programming period criticisms of large afforestation programmes were made on environmental grounds (e.g. Beaufoy, 1998[24]). Examining table 3.9 in respect of this measure, the first point to note is that the majority of spending in the 2000-06 period at the EU-27 level[25] relates to pre-2000 contracts (62.7%). Examining data at the programme level, spending on these measures increased in the EU-27 by 23.5% between 2000-06 and 2007-13, but this increase was solely the result of spending in the new MS; spending in the EU-15 decreased by 25.2%. Overall, spending on afforestation measures in the EU has declined from the late 1990s to the 2007-13 programming period. There are, however, exceptions to this at Member State level, with increases in, for example, Germany, Denmark and Greece (although Greece decreased spending for 2007-13).

Table 3.6. Axis 2 total EU spend by measure (2000-06 and 2007-13), € million

Measures	**2000-06**	**%**	**2007-13**	**%**
Less favoured areas and areas subject to environmental constraints (2000-06)	7,965	30.5	n/a	n/a
Natural handicap payments – mountain areas (2007-)	n/a	n/a	6,542	17.0
Payments – handicaps other than mountain areas (2007-)	n/a	n/a	6,498	16.9
Natura 2000 payments, Water Framework Directive (2007-)	n/a	n/a	645	1.7
Agri-environment payments (pre-2000 contracts)	4,792	18.3	n/a	n/a
Agri-environment payments (post-2000 contracts)	10,377	39.7	18,932	49.1
Environmental protection & animal welfare (Art 33, 2000-06)	840	3.2	n/a	n/a
Animal welfare payments (2007-)	n/a	n/a	393	1.0
Non-productive investments (agri, 2007-)	n/a	n/a	361	0.9
First afforestation of farmland (pre-2000 contracts)	1,387	5.3	n/a	n/a
First afforestation of farmland (post-2000 contracts)	788	3.0	2,290	5.9
First establishment of farmland agroforestry systems (2007-)	n/a	n/a	64	0.2
First afforestation of non-agricultural land (2007-)	n/a	n/a	332	0.9
Natura 2000 payments (forestry, 2007-)	n/a	n/a	159	0.4
Forest-environment payments (2007-)	n/a	n/a	272	0.7
Restoring forestry potential and prevention actions	n/a	n/a	1,195	3.1
Non-productive investments (forestry, 2007-)	n/a	n/a	712	1.8
LEADER axis 2 type spending	4	0.0	132	0.3
Other miscoded measures of Axis 2	0	0.0	n/a	n/a
Axis 2 Total	**26,154**	**100**	**38,525**	**100**

Note: Germany, Spain, UK, Italy, Portugal and Malta have missing data in 2007-13.

[24] Beaufoy, G. (1998) Country study for Spain, evaluation of the application of measure 2080/92 in the EU15, for the European Commission.

[25] EU-27 is equivalent to EU-15 for this measure.

The largest decreases in spending on afforestation measures between the two programming periods occurred in Spain and Ireland, although large percentage decreases also occurred in France and Finland. This suggests that the scale of new afforestation in these countries is set to decline significantly. However, some €580.6 million is scheduled to be spent in Spain in the 2007-13 period on other forest measures ("Forest-environment payments", "Restoring forestry potential and introducing prevention actions" (accounting for the bulk of spending) and "Non-productive investments"). Taken together, all forestry measures in Spain will account for 45.3% of total Axis 2 spend in 2007-13, a considerably greater proportion than the 29.8% share in the 2000-06 period. In France, €284.5 million is expected to be spent on other forestry measures in the 2007-13 period. Again, this is a considerably higher proportion than the 0.7% spent on forestry measures in the 2000-06 period. The patterns are different in Ireland and Finland, where no Pillar 2 money is planned to be spent on other forestry measures in the 2007-13 period. In these Member States, as in many others, most Axis 2 funds are allocated for agri-environment payments (54.7% and 43.0% respectively). Thus it appears that from among those who were investing in new forests a decade ago, some countries are now drawing upon pillar 2 funding to help manage their forests to a greater degree than previously (France and Spain), while others do not (Finland and Ireland). Ireland plans to spend national funds on forestry measures, without EU co-financing, in 2007-13, while Finland apparently does not see such measures as a high priority for public funding, given the very high proportion of forested land in this country (EC, pers comm.)

In the 2000-06 period, spending on LFA areas is within the "less favoured areas and areas subject to environmental constraints" measure, and in the 2007-13 period spend comprises two measures: "natural handicap payments to farmers in mountain areas" and "payments to farmers in areas with handicaps, other than mountain areas". Total EU spend increased by 63.7% from €7.97 billion in the first period to €13.04 billion in the second. Most of this increase came in the new Member States who only gained access to LFA payments on accession. Spending in the new MS increased from €1.02 billion in the first period to €5.08 billion in the second with Poland, Slovakia, Czech Republic, Slovenia and Estonia all showing large increases. In contrast, spending in the EU-15 increased from €6.89 billion to only €7.89 billion. Big increases affect the Netherlands and Belgium and some regions of Germany (Sachsen) and Italy (Campania, Lombardia and Toscana), but substantial percentage decreases are seen in some German and Italian regions (especially Baden-Wurtemberg, Nordrhein Westfalen, Rheinland Pfalz, Sachsen Anhalt, Lazio and Molise). Of these 6 regions, 3 faced cuts in their RD allocations, from 2000-06 to 2007-13.

In overview, although the relative importance of EU spending on agri-environment measures decreased from 58% to 49% of total Axis 2 spending, the increase in overall funds means that the measure is receiving a 25% higher absolute level of EU funds in 2007-13, compared to the previous period. The relative importance of spending on natural handicaps (LFAs) will increase from 31% to 34% of the axis total, a 64% increase in funds in absolute terms. The majority of this increase will be accounted for by the new Member States. Although there are exceptions, generally spending on afforestation measures has decreased in the EU-15 from the late 1990s through the 2000-06 programming period and again into the 2007-13 period. Increases in spending on other forestry measures in Spain and France suggest that some countries investing in afforestation ten years ago now use Pillar II funds for forest management.

Axis 3

Table 3.7 presents total EU spending by measure within Axis 3 for 2000-13. 39% of EU funds under Axis 3 in the 2000-06 period were spent on the renovation and development of

villages and protection and conservation of rural heritage. The corresponding proportion in the 2007-13 period is expected to be 30% (two measures, "village renewal and development" and "conservation and upgrading of the rural heritage"). However, in absolute terms the funding available will more than double. There will also be a large increase in available funds for basic infrastructure / basic services for the economy and rural population. The other notable point in the figures is the significant proportion of total spend which is being delivered through axis 4 in the new period: 22 per cent, by comparison with only 2 per cent in 2000-06.

At the EU-27 level there will be a 60% increase in EU funding under the village renewal measure, from €2.1 billion in 2000-06 to €3.3 billion in 2007-13. This increase is made up of a very large increase in funding in the new MS from €54.6 million to €2.4 billion, and a decrease of 56% in the EU-15 from €2.0 billion to €888 million. The greatest use of the village renewal measure in the 2000-06 period was Germany which accounted for 77.7% of total EU spending, of which by far the majority was in the new Länder. In contrast, France, the next largest spender on this measure, spent only €97.2 million. Although planned expenditure in Germany in the 2007-13 period is the largest in the EU-15 at 72% of total planned EU-15 expenditure, this is just 19.3% of total EU-27 spending on village renewal. The bulk of spending on this measure in this period is planned in Romania (€1.2 billion, 37.4% of the EU-27 total), and spending in some other new MS is also significant.

Table 3.7. Axis 3 EU spend by measure (2000-06 and planned, 2007-13), €m

Measures	**2000-06**	**%**	**2007-13**	**%**
Diversification of agricultural activities (Art 33)	645	12.2	1,301	8.6
Business creation and development (2007-)	n/a	n/a	2,136	14.2
Encouragement for tourist and craft activities (Art 33, 2000-06) / tourism activities (2007-)	433	8.2	1,165	7.7
Basic services for the rural economy and population	430	8.2	2,350	15.6
Basic infrastructure – (SAPARD)	657	12.5	n/a	n/a
Financial engineering (Art 33)	93	1.8	n/a	n/a
Village renewal and conservation of rural heritage (Art 33)	2,063	39.1	n/a	n/a
Village renewal (2007-)	n/a	n/a	3,309	22.0
Conservation and upgrading of rural heritage (2007-)	n/a	n/a	1,169	7.8
Management of local integrated strategies (2004 -)	30	0.6	124	0.8
Art33 – General/Other	595	11.3	n/a	n/a
Training and information (2007-)	n/a	n/a	124	0.8
Skills acquisition, animation and implementation (2007-)	n/a	n/a	177	1.2
LEADER axis 3 type spending	93	1.8	3,336	22.1
Other miscoded measures of Axis 3	235	4.5	0	0
Axis 3 Total	**5,273**	**100**	**15,066**	**100**

Note: Germany, Spain, UK, Italy, Portugal and Malta have missing data for 2007-13.

These patterns reflect the fact that during the latter part of the 2000-06 programme period, village renewal as a methodology was taken up enthusiastically in a number of new MS. It was apparently seen as particularly valuable in economically depressed areas with high 'disguised unemployment' and many redundant or semi-derelict buildings, following the collapse of the planned economies in the 1990s. Thus, some very large increases in spending on this measure are planned in new Member States including Bulgaria and Poland, albeit from very low bases. However, a similar pattern is also seen in Sweden and Luxembourg, again from low bases, which may also reflect a relatively recent positive experience of this measure. By contrast, large percentage decreases in spending are to take place in England, Wallonie and France, while in Latvia and Northern Ireland spending under

this measure took place in the 2000-06 period, but will not take place at all in 2007-13. In Northern Ireland, Axis 4 is being used to deliver all of Axis 3 aims for the new period 2007-13; thus potentially the same measures, but delivered via Local Action Groups, could still be funded. This may also be a factor for other programmes.

In the 2000-06 period this measure appears to have been used in both relatively wealthy and poorer programme areas (as defined by Objective 1 status). However, 77.1% of the very large German spend took place in the New Länder, which were Objective 1. With almost half (49.1%) of planned expenditure in the 2007-13 period in Bulgaria and Romania and 73.2% in the new Member States overall, the focus of spend is now clearly on relatively poor areas (as defined by convergence status).

The use of the basic services for the economy and rural population measure, as a proportion of total Axis 3 spending 2000-06, was most significant in Cyprus and Scotland, accounting for 75.6% and 54.9% of total Axis 3 spending respectively. However, the absolute spend in each of these countries was relatively low. In terms of proportionate expected expenditure 2007-13, this measure is most significant in Poland where 47.0% of total funds for this measure are allocated. Germany will account for 16.6% of the EU-27 total, with the new Länder planning to spend 89.5% of this. Other Member States planning to spend large funds under this measure are the Czech Republic and Italy (for which 60.1% of the national total is planned to be spent in convergence regions). This is another measure which is heavily used in relatively poor regions (defined by convergence status).

In overview, EU Spending under Axis 3 is set to almost treble from €5.3 billion to €15.1 billion between the two programming periods. There is expected to be a large increase in absolute terms in spending on village renewal and development and the conservation and upgrading of the rural heritage, although the relative importance of these measures within this axis will decline as spending on other measures also expands. Member States have chosen to deliver just over a fifth (22%) of funds under this Axis through LEADER in the 2007-13 period, an increase from only 2% of axis 3 funds in the previous period. The analysis also indicates that both village renewal and basic services for the economy and rural population funds are focused in relatively poor regions/Member States, as defined by their convergence status.

Axis 4

Table 3.8. Axis 4 spending by measure, € millions

Measures	**2000-06**	**%**	**2007-13**	**%**
Inter-territorial co-operation (2000-06)	6	0.5		
National networks (2000-06)	2	0.2		
Trans-national co-operation (2000-06)	3	0.2		
Co-operation (2007-)			263	5.2
LAG running costs (2000-06)	260	21.6		
Management of local strategies (2004-06)	808	67.4		
Promotion (2000-06)	6	0.5		
Research (2000-06)	2	0.2		
Running the local action group, acquiring skills and animating the territory (2007-)			868	17.2
Axis 1 type project spending	15	1.2	449	8.9
Axis 2 type project spending	4	0.3	132	2.6
Axis 3 type project spending	94	7.8	3,336	66.1
Axis 4 Total	**1,200**	**100.0**	**5,048**	**100.0**

Note: Germany, Spain, UK, Italy, Portugal and Malta have missing data for 2007-13.

An examination of EU LEADER spending, i.e. project and non-project spending, shows that total EU LEADER spending across the EU amounted to €1.2 billion in the 2000-06 programming period and €5.0 billion in the 2007-13 period. This increase reflects both the mainstreaming of LEADER in the 2007-13 period and the increase in the number of Member States using LEADER (it was not available in the new Member States under SAPARD and no new Member States used LEADER, once available, in 2004-06).

The majority of EU-27 LEADER+ non-project spending in the 2000-06 period was on the management of local strategies (€808 million, 74.3% of the total non-project spend. Whilst generally the proportion of planned expenditure on running LAGs exceeds that for implementing co-operation projects (usually considerably), there are exceptions. In Valencia and Northern Ireland, no funds are set aside for LAGs and in Estonia, Luxembourg, Netherlands, Scotland and Sicily funding for LAGs is less than that for implementing co-operation projects. It is possible that this relates in some cases (e.g. Northern Ireland) to the fact that these groups have been in existence for many years and thus other funding sources cover their running costs. The largest non-project expenditure in the 2000-06 period was in Spain (25.6% of EU-15 total), followed by Germany (14.5%) and Italy (13.2%).

At the programme level, Portugal and Andalucia accounted for 9.3% and 4.6% of total non-project expenditure respectively. Germany and Spain each plan to spend 12.7% of total EU-27 non-project LEADER expenditure in 2007-13 with Poland planning to utilise some 11.8% of the total. At the programme level the main spenders will be Andalucia (6.4% of EU-27 total) and Brandenburg (4.7%). Just over two-thirds of total non-project spend will be in the EU-15 (69.2%).

LEADER+ project spending 2000-06 shows a strong association with axis 3, which probably provided the rationale for the suggestion in the Community Strategic Guidelines that axis 4 is most suited to delivery of axis 3 goals. In any case, the same link is carried forward and indeed amplified, in 2007-13. The majority of LEADER project spending is related to quality of life (85.2% of total project spend - a slightly higher proportion than in 2000-06). Some 11.5% will be spent on competitiveness and 3.4% on the environment (both slightly lower proportions than previously). This may reflect the line taken in the Community Strategic Guidelines, but it also suggests that the original concept of LEADER, in which funding is intended to integrate social, environmental and economic goals within projects, has been somewhat sidelined. The EU-15 will spend proportionally more Axis 4 EU project funds on quality of life and the environment at the expense of competitiveness while in the new MS competitiveness attracts proportionally more funds than in the EU-15.

Spain made the most use of LEADER in the 2000-06 period (€281.3 million). Germany spent €157.6 million, just under half (49.3%) of which was spent in the new Länder (Objective 1/convergence regions). Italy spent some €149.1 million (12.4% of the EU total), again, almost half of which (47.4%) was spent in Objective 1/convergence regions. France and Greece also made significant use of LEADER funds at €136.7 million (11.3%) and €110.8 million (9.2%) respectively. The largest planned expenditure under LEADER in the 2007-13 period will be Poland at €630.0 million, 12.5% of the total. However, Spain, Italy and Germany will remain major users of LEADER funds. Apart from the new Member States, other areas where large increases in LEADER spending are foreseen include Baleares in Spain (albeit from a small base), Liguria in Italy, Ireland, and Hessen and Saarland in Germany. The only programme area intending to spend less under LEADER, 2007-13 is Molise in Italy where funding decreases from €4.6mn to €4.3m.

In sum, EU spending on LEADER is set to increase significantly between the two programming periods. The vast majority of this increase is in the form of project spending whilst non-project spending will increase by just 4%. Around three-quarters of total non-project spend in both periods is related to the management of local strategies. Generally a higher proportion of LEADER project spend in the EU-15 is on quality of life and the environment than on competitiveness, whilst new Member States have a greater relative focus on competitiveness. However, quality of life still accounts for the majority of planned LEADER spending in new Member States, as in the EU-15. Notwithstanding the differences of emphasis, LEADER is clearly used in both convergence and non-convergence situations.

3.2.2.6. Targeting of spend within Member States (including spend per beneficiary)

Data concerning EU-15 Guarantee expenditure were made available at the NUTS 3 level during the period 2000-06. These data were used to assess the extent to which there appears to be spatial targeting of just the four accompanying measures which were wholly Guarantee-funded within these Member States, at the NUTS 3 level. *A priori* one would expect that programmes target particular needs and that, as these are likely to differ between regions, so too will inter-regional spending, in programmes. Total spend intensities, and total spend by instrument, were used for the comparison, and the findings are summarised below.

Total EU spending on land-based accompanying measures. When examined by hectare UAA, the pattern of spend in many MS is fairly evenly spread. However, when examined by beneficiary, significant inter-regional differences can be seen (e.g. Ireland, with higher levels of spending per beneficiary in the relatively wealthy southern regions). In Germany, spend per beneficiary is generally higher in the New Länder. In northern France, spend per beneficiary is relatively high compared to other regions. In part this finding reflects farm size differences and the fact that three of the four accompanying measures are land-based. This means that where there are fewer, larger farms, spending per beneficiary is relatively concentrated whereas spending per unit area is more uniform.

Spending on the agri-environment measure is high in Ireland, Finland and Sweden, as well as northern Austria and Sardinia (Italy). Spending in some Objective 1 areas, Greece for example, is less intense (agri-environment payments account for only 10.1% of the total spending on accompanying measures in Greece, which had a significant early retirement scheme during this period). Spending on *first afforestation* of farmland was notable in Ireland (where it accounted for 13.7% of spending on accompanying measures) and some regions of Spain and Portugal. Very little was spent in France or Greece. The *Less Favoured Area* measure is focused on the west of Ireland, Finland, Sweden and south-central France. Lower levels of spending can be seen in, for example, the more productive regions of southern and eastern England and northern France. Germany appears to disperse spending on this measure across the territory. At the national level Germany was the second largest spender after France, accounting for 13.9% of total spend. The *Early Retirement* measure was not taken up across the EU-15 as can be seen from a lack of spending in, for example, England, Scotland and Sweden. Again, one of the highest levels of spending was in Ireland, although not uniformly, suggesting some targeting at the regional level. Spending was also high in some north-west regions of Spain, some areas of Greece and most areas of Finland. There is evidence of targeting at the regional level in Spain and Greece, but less in Finland.

It should be remembered that patterns of uneven spending between local areas could occur merely as a result of differential demand on the part of beneficiaries, without explicit targeting. Thus where we have suggested above that there may be targeting occurring in some programmes, the patterns could equally well result from differential demand.

3.2.2.7. Expenditure over time, 2000-06 period only

The pattern of EU expenditure over time was investigated for each axis, in order to examine differences in the speed of spend between axes and measures.

Axis 1. In a number of Member States, for example, Portugal, the UK, Luxembourg and Italy, EU spending in 2000 was proportionally low. In some of these Member States spending was also low in 2001, for example, the UK and Italy. As a result, spending in these Member States was heavily back-end loaded. Austria, Ireland and the Netherlands were the only Member States where spending was not noticeably back-end loaded. In the case of Austria, spending was relatively evenly spread between years. It is possible that the decision to back-end load spending was deliberate, but it is also possible that this resulted from a slow start for measures in some Member States. In general, this uneven pattern of spend is likely to relate to the investment nature of much of Axis 1 funding, which requires it to be carefully planned and assessed before spending takes place.

Axis 2. EU spending under this Axis was substantially more consistent between years than under Axis 1, probably in part due to commitments from the previous programming period. Spending was generally back-end loaded, most notably in Greece and Belgium. In contrast spending was front loaded in Italy and Finland, which may have been deliberate, but alternatively may indicate that scheme uptake was higher than initially expected. Spending was evenly spread between years in Austria and Sweden and, to a lesser extent, Ireland and Germany. To a large extent this illustrates the difference in nature of spending between axes, in that the largest elements in Axis 2 (agri-environment, LFA, afforestation) involve regular annual payments made under multi-annual contracts with the beneficiary. Once the initial contract or award is negotiated, annual spending can flow almost automatically.

Axis 3. The annual pattern of EU spending here shows the greatest difference between Member States and spending under this Axis is the most clearly back-end loaded in most cases. In a number of Member States this reflects the fact that some measures under this Axis were slow to be implemented. The greatest degree of back-end loading was in Greece, the UK, Sweden, Belgium and Portugal. In fact, no expenditure took place in 2000 in Greece, Portugal or Ireland. In contrast, spending in Austria and Spain was the most even, but nevertheless still slightly back-end loaded. The explanation for these patterns lies in the varied and sometimes complex nature of projects funded. Those RDPs which spent a lot of Axis 3 money in the early years of the programme usually did so on projects which were administered by public authorities and involved large sums of fairly simple investment (eg forest roads, in Austria – Dwyer et al, 2003). Others which spent their Axis 3 money very slowly tend to have spent time and effort developing detailed local initiatives and/or building rural capacity (eg collaborative environmental management, in Northern Ireland).

3.2.2.8 Conclusions to the expenditure analysis

A number of patterns are evident from the analysis. First, differences in wealth (here defined by relative GDP/capita, revealed by non-objective 1 or non-convergence status) and farm structure result in differences in focus. For example, it is generally the case that relatively wealthy regions/Member States focus more on environmental measures, and poorer regions with a fragmented agricultural sector tend to focus on restructuring. Although the introduction of minimum spend proportions in the 2007-13 period has reduced differences in spend to some degree, this still holds. It is also evident that measures used in previous periods influence spend in subsequent periods. This is clear where long-term commitments entered into have to be honoured, for example, for early retirement or afforestation, but there may also be an element of retaining measures with which implementing authorities (and potential

beneficiaries) are familiar. It may politically be difficult for implementing authorities to make large changes in the policy environment between periods.

Nevertheless, there is evidence of change in the balance of spending and the mix of measures used, over time. The new programmes are spending much more on Axis 3 than was generally the case in 2000-06, a factor most likely influenced by the minimum spend thresholds. In respect of individual measures, we see the decline in spending on afforestation measures pre-1990, 2000-06 and 2007-13 (with some exceptions), in contrast to the steady growth in agri-environment spend. Another example of change in priorities over time is spending on human capital and market orientation measures under Axis 1. This increased significantly between 2000-06 and 2007-13, possibly as a result of the explicit emphasis given to these measures in the Community Strategic Guidelines. Generally, as restructuring and modernisation gradually takes place in regions/Member States, they might be expected to focus relatively less funding on facilitating further structural adjustment and more on promoting human capital and market-orientation measures and this does indeed seem to be the case. However, it is spending on measures such as early retirement and young farmers, rather than farm investment or modernisation measures, that is being reduced proportionately to allow this change in focus to occur.

The analysis of the measure for village renewal shows how a model originally developed in a relatively wealthy part of the EU (southern Germany and Austria) has now found favour across many parts of the new Member States, to become a key element in regeneration activity in rural areas. The analysis of basic services expenditure also highlights its importance among cohesion countries and regions, within the axis 3 measures.

The analysis suggests evidence of sub-regional targeting for the accompanying measures (2000-06), which is greater in some areas than in others, and more evident for some measures than others. The patterns suggest that different MS have taken a different attitude to the application of these measures, with some choosing highly targeted strategies for implementation while others have applied them widely. However, it is also possible that the patterns reflect uneven uptake by beneficiaries, and not an explicit result of targeting.

The analysis of spending over time highlights the fact that certain measures are slower to spend funds than others, and suggests that this is inherent in their character, rather than a measure of relative inefficiency. It is important to remember this when evaluations are made.

Finally, it should be noted that whilst these data can show the breakdown of spend and how this changes over time, they cannot, in most cases, provide an explanation for why spending patterns occur or why they change. In order to fully understand these motivations it is necessary to undertake more detailed, qualitative investigation at the level of individual programmes.

3.3 Rural area characteristics

3.3.1 Introduction – overview of rural characteristics

Rural areas can be characterised by the type, scale and quality of assets that they contain, by trends in these assets over time, and by comparisons between individual area characteristics and those of some frame of reference (eg EU average values or trends, or similar). These rural assets may be:

- Economic – measures of wealth, business activity/viability or success, structure of economic activity (sectoral balance), productivity, levels and types of employment, and so on;
- Social – demography (population size, trends, age structure), quality of life/health and well-being (life expectancy, educational attainment, child mortality, prospects for women and young people), cultural assets and forms of social interaction or support;
- Environmental – including living and non-living features (biodiversity, landscape, water quantity and quality, air quality, soils, topography and climate).

To gain a picture of the diversity of situations in rural Europe and thus the range of potential contexts for rural development activity, we must select a range of characteristics from each of these three categories, to examine in more detail for all programme areas in the EU-27. The following sections draw from the relevant European and international research literature to identify key characteristics of most likely interest in respect of RD, for each category.

3.3.1.1 Economic characteristics

A wide range of economic variables is commonly used to measure the degree of prosperity and the relative need for public and/or private investment, in both developed and developing country contexts. Those which appear most central to RD concerns in Europe are discussed, below.

Measures of wealth
The most commonly used indicator of economic wellbeing across the globe is the measure of Gross Domestic Product (GDP) or, more precisely, GDP per capita. Comparing GDP/capita gives an instant picture of the levels of relative wealth of different territories. Examining trends in GDP per capita over the medium-term – perhaps five to ten years - should indicate whether rural areas are experiencing positive development trends, or negative ones.

Business activity and economic structure
From the perspective of rural development activity, it is important to know how territories are characterised in terms of the scale and productivity of the main economic sectors. So, the share of each broad sector (primary, secondary, tertiary) in total output and the productivity of main sectors would be relevant. Productivity is most commonly measured as gross value added or GVA, and sometimes with reference to labour input (GVA/AWU – annual work unit), which indicates labour productivity. The total value of output (analogous to GDP, but differentiated by sector) can also be relevant in some circumstances.

Classically, rural areas tend to lag economically behind urban areas, and this is often related to a high relative dependence upon primary sector businesses, which tend to have more limited ability for adding value. Thus the level of dominance of the primary sector in rural business activity - both in value terms, and in share of total employment – is an important

characteristic to examine. Understanding the capacity of the economy to sustain reasonable incomes and quality of life is central to the concerns of rural development. Thus where rural areas are unusually dependent upon the primary sector, its capacity to generate reasonable standards of living is relevant. In that context, it may be important to characterise the sector in more detail – examining business size, access to capital and labour, gross value added and net value added, farm incomes, and trends in these variables in the medium term.

Another important feature of rural areas which distinguishes them from urban areas is a relative predominance of small and medium-sized enterprises (SME) and micro-businesses, due to the sparsity of settlement patterns and the relative absence of the kinds of major infrastructure that tend to be needed to support larger industries[26]. Thus to understand the health of the rural economy, it may be important to examine some characteristics of SME and micro-business (including farms, but not exclusively), to assess their capacity to perform successfully and thus provide adequate returns to rural areas. In this sense, small business or farm business survival, innovation, and access to human and physical capital, may all be indicative of the potential to perform well.

Employment and incomes
Understanding rural labour – how it is deployed, and trends in employment over time - is often central to understanding the condition of the rural economy and its capacity to contribute positively to rural well-being. Again, the classic pattern in rural areas has been of a relatively high proportion of the working population employed in agriculture and other primary industry, although today the tertiary sector can often be an equal or more important source of employment, particularly in leisure and tourism. Often also, incomes in rural areas tend to be lower than those in urban areas. This is due to their association with relatively lower-paid kinds of employment including semi-subsistence farming, and casual or seasonal work in agriculture and tourism. Exploring the nature of employment and average earnings in key sectors can indicate standards of living, as well as broader measures such as household incomes.

Some rural areas currently suffer high levels of unemployment, often as a result of a decline in the farm workforce as farms have modernised and capitalised, while other business has tended to concentrate in urban and peri-urban areas with better transport access and other infrastructure. In some areas of central and eastern Europe, the shrinkage of large scale manufacturing in the 1990s led to a rural in-migration of ex-urban workers who returned to their families' farms in the hope of making a living off the land. Whilst people in this situation would not necessarily show up as unemployed in official statistics, some indication of this problem of 'disguised un(der)employment' can be given by examining farm size, recorded farm labour force, and farm incomes, as well as trends in these variables over time. If the agricultural labour force is high, farm size is small and agricultural productivity is low, and particularly if these characteristics have worsened in recent years, this could indicate disguised unemployment.

3.3.1.2 Social characteristics

Maintaining and improving quality of life and human well-being is an important and near-universal aim of development policies, as indicated by the 2007 Istanbul Declaration of the World Forum on Statistics, Knowledge and Policy (OECD, 2007). Thus it is important for rural development policy to be aware of how social assets in rural areas are changing over time, and how they differ between territories.

[26] There are of course important exceptions to this – for example in the new MS where very large farms were created in some areas through central planning, and these persist today.

Demography
Population decline and growth have long been seen as perhaps the single most important defining element in rural development needs. The traditional concern of rural development often coalesces around population decline and its knock-on effects for the maintenance of rural social, cultural and environmental assets The age structure of rural populations is therefore of interest, in that when rural areas lose young people this can be a classic cause and/or symptom of rural decline. Age structure also has important implications in respect of the need for different kinds of service in rural areas. Higher than average proportions of older people can mean a need to support these areas with additional healthcare or public transport provision, for example, while high proportions of younger people could put more of an emphasis upon basic childcare and educational facilities. Migration patterns are also of interest because when combined with age structure and considered over time, they show whether rural areas are losing young people to urban areas or, conversely, populations are increasing due to the in-migration of older people seeking retirement in the countryside. These different trends have different implications for RD policies.

Health and welfare
Health is another recognised indicator of well-being. The most common measures of health at global scale are probably life expectancy and infant mortality. Access to opportunities (jobs, training) is also a key facet of social inclusion that can, in principle, be examined through a selection of indicators. For example, indicators for the level of participation of women in the workforce and/or unemployment rates among young people can give insights into the extent to which these groups may be specifically disadvantaged, in rural areas. Lastly, where available, indicators of levels of rural mental ill-health or suicide rates are highly indicative of situations where rural areas or sectors are suffering from low social capital. For example, farmers in England have the highest suicide rates among all sectors at present, reflecting their sense of isolation and difficulty in coping with rapid market and policy changes.

Education and Social interaction
Levels of educational attainment (particularly, the question of whether they are as high as in urban areas) have often been used to assess rural quality of life. Where rural areas are predominantly agrarian, the educational qualifications of farmers can be an indicator of the more general state of human capital in rural areas. Also important for quality of life in rural areas are the variety of local community organisations, institutions, cultural activities and traditions, which help to foster social capital. However, few readily-available quantitative indicators can be used to indicate these assets in different areas of Europe. Instead, considering the level of provision for social (and economic) interactions, in the form of infrastructure such as transport and communications, as well as the relative density, scale or proximity of rural settlements to most rural inhabitants, can serve as proxy measures.

3.3.1.3. Environmental characteristics

In contrast to key economic and social indicators, where one is often interested in the differential between certain characteristics in *rural* as opposed to *urban* settings, in respect of the environment rural and urban inhabitants commonly draw from the same quantity and quality of resources. Many of these tend to be largely ‘located’ in rural areas, to the extent that they are geographically concentrated (e.g. terrestrial biodiversity, water catchments, soils, etc), although exceptions would include air, and cultural landscapes. Typically, the key environmental resources of most concern in respect of rural development activities and aims would include biodiversity, landscapes, water, soils and air. Important characteristics would thus include the state and trends in these resources (quantity and quality) in recent years.

Also of interest are indicators which illustrate how specifically rural activities, such as agriculture, are influencing these trends. The EEA's publications on agriculture and the environment pinpoint many indicators by which it is possible to assess the relative degree of positive and negative agricultural impacts upon natural resources, and these are highly relevant to rural development needs and concerns. Similar considerations apply to forestry, and other land-using sectors

3.3.2. Likely characteristics of interest and relevance to the consideration of RD needs

3.3.2.1 Shortlist of characteristics

A short list of potentially interesting characteristics for rural Europe can be identified, including some for each of the main subheadings within the three main categories of economic, social and environmental capital assets discussed above. The list focuses on the kinds of characteristic which are most relevant to EU rural development policy.

Economic:

- *Data which should be for rural areas only* – GDP/capita, GVA by sector, share of GDP and total employment in primary sector, unemployment levels, household incomes; for innovation/ added value new business start-ups, and research spending by firms;

- *Data which can be for the whole programme area* - business and holding sizes in agriculture, GVA/AWU in agriculture and forestry, agricultural incomes, and trends in these variables over a recent 5-year period; innovation and added value in agricultural or forestry products; levels of farm diversification.

Social *(all data for rural areas only*):

- Life expectancy among adults, child mortality rates, net migration rates, population size and density/ha, age structure, and trends in these over time. Rural infrastructure provision – access to, or average distance from, key services (broadband IT, transport, doctor, shops). Educational attainment levels, life-long learning participation rates, agricultural sector qualifications. Participation of women and young people in education and employment; suicide rates and incidence of mental ill-health by sector and/or location.

Environmental *(data for whole programme areas is relevant):*

- high biodiversity value areas, number and scale of high quality or extensive/marginal landscapes, farmland bird diversity and population trends, land take for urban development. Also levels of nutrients in water, pesticides in water, water abstraction rates, quantity of water, soil condition and erosion rates, ammonia levels, methane and CO2 emissions, proportion of permanent vegetation cover, average livestock densities (crude figures derived by dividing stock numbers by total farmland area).

3.3.2.2. Assembly of programme-level CMEF dataset and correlation with RD spending patterns

The 2006 RD datasets supplied by the Commission – of characteristics based on the CMEF - gave an approximate 75% coverage of RDP Programme areas and NUTS3 areas, 2007-13. It should be noted that some programmes are at NUTS 0, some at NUTS 2 and some at NUTS 3 (and England in the UK is at an intermediate level). Thus to address gaps, source

data from Eurostat was used to enable us to obtain values for all EU-27 2007-13 programme areas. In several cases, Eurostat data was sourced for NUTS 3 and then aggregated up to the appropriate level for the programme. As a result, approximately 95% coverage of key CMEF characteristics was obtained at both programme and NUTS3 levels. This suite of characteristics was built into 2 databases (table 3.9, database 4: programme areas, and 5: NUTS3).

3.3.2.2. Gap analysis of the dataset

Comparing this list with the 'ideal' categories discussed in 3.3.2.1, it is weak particularly in four respects:

- It includes no measures of the relative importance of quality and value-added production, to enable assessment of this particular aspect of competitiveness;
- It lacks sufficient environmental variables to adequately address these characteristics; In particular, levels of chemical input use are not available for the EU-27;
- It does not provide trends, which are key for some characteristics (e.g. the rates of change in agricultural employment or productivity, and population change);
- This dataset does not distinguish between the characteristics of rural and urban areas, within each programme area. So by reference to section 3.3.2.1, it includes some variables that are wholly appropriately defined (mainly environmental and agricultural characteristics), and some that are more general (mainly characteristics pertaining to the wider economy and demography of programme areas). This second category should ideally be differentiated between urban and rural territories within each programme area, so that we can examine only the rural component.

There is a significant gap in environmental data, particularly due to the lack of comparable measures between the EU-15 and the new Member States, and of data related to NUTS territories (as opposed to monitoring stations or 10km squares), for water quality, soil erosion, GHG emissions from agriculture, and biodiversity status.

There is a lack of programme-level data which specifically characterises the rural parts of each programme area, in respect of key economic and social characteristics. These include the share of different sectors in GDP, GVA and employment, infant mortality, and access to services such as IT. There are also no suitable data to enable us to consider the qualitative aspects of social characteristics, such as levels of community activity and social capital.

3.3.3. Correlation of characteristics with expenditure patterns, EU-27, 2000-06

A correlation analysis was carried out to test the strength of independent association between the 35 undifferentiated programme-level characteristics and five broad spending variables (Axis 1 – 4 spend and total spend, all EU 2000-06 funds combined). A Spearman's Rank correlation coefficient was computed for this purpose because the degree of linearity between the two sets of variables was inconsistent, across the sample. Twelve of the characteristics were found to be significantly correlated with *total* spend (all axes combined), with a confidence level of over 90%. For total spend, the five most significant variables were:

- % of Employment in Tertiary sector (negative association);
- % of UAA under organic farming (positive);
- % (Farm) Holders with other gainful activity (positive);
- Farm Labour Force AWU (Annual Work Units) (positive);
- Total number of Tourist bed places (positive).

Table 3.9. List of characteristics (programme and NUTS3 level, for EU-27)

Variable	Unit of measurement
Economic	
GDP/capita	Euro
Share of agriculture in GDP*	%
Share of forestry in GDP*	%
Household incomes (annual, average)*	Euro
Share of secondary and tertiary sectors in total employment	%
Share of secondary and tertiary sectors in total GVA	%
Share of self-employment in total employment	%
Share of GVA in services	%
% GVA in Primary sector	%
% GVA in Secondary sector	%
% GVA in Tertiary sector	%
% Employment in Primary sector	%
% Employment in Secondary sector	%
% Employment in Tertiary sector	%
% holders with other gainful activity	%
Average area farm size	Ha
% of holdings with less than 5 ha UAA	%
% of holdings with 5 ha to less than 50 ha UAA	%
% of holdings with 50 ha UAA or more	%
Average economic farm size	ESU
% of holdings with less than 2 ESU	%
% of holdings with 2 ESU to less than 100 ESU	%
% of holdings with 100 ESU or more	%
Total Labour Force	AWU
Total number of tourist bed places	000s
Social	
Net migration crude rate	Rate per 1000
% farmers with basic and full education attained	%
% of 25-64 yr.olds participating in education and training	%
Environmental	
Areas at risk of soil erosion	Tonne/ha/year
% Land Cover – agricultural area	%
% Land Cover – forest area	%
% Land Cover – natural area	%
% Land Cover – artificial area	%
UAA under organic farming	%
% UAA where cereals yield < 60% of EU-27-average)	%
% UAA where livestock density < 1 LU/ha of forage area	%
% UAA under Natura 2000 (SCI)	%
% irrigated UAA	%

In order to explore the correlations further, it had been planned to run a regression analysis to examine which variables had the greatest apparent influence on spending patterns. However a violation of key statistical assumptions for this technique, including normality of distribution and linearity in the data, precludes the use of *linear regression*. A *logistic regression* model would have required transformation of spending into a dichotomous

variable (ie below or above an average value). Given the widely varying size of programme areas and funding allocations, analysis based simply upon explaining divergence from the arithmetic 'average' is clearly inadequate and potentially misleading. Therefore, regression analysis was not undertaken. Instead it was decided to examine relationships between specific characteristics and specific axes, following the logic set out in section 3.3.2.1.

For *axis 1* (farm and forestry competitiveness), those characteristics showing the strongest correlations with spend include farm size (in hectares), sectoral balance and labour force, as well as GDP/capita. The direction of the correlation is intuitively reasonable in all these cases (more money is spent in low GDP, small farm, highly primary sector dependent and high farm labour force areas). The absence of apparent correlation between axis 1 spending and farm size in ESU is curious, however, although there is a weak, positive correlation between total spending and the proportion of the smallest category of farms in ESU (<2ESU).

For *axis 2* (environmental management), the characteristics showing correlations with spend are more mixed. There are positive correlations with a number of economic characteristics, indicating that this type of funding flows to areas with more highly skilled and more diverse farms and more developed secondary and tertiary sectors. It is not immediately apparent why such correlations might exist. In addition, there is evidence of funding favouring areas of more extensive management, more forests and more organic farms, as would seem rational.

The lack of any evident correlation between level of axis 2 spending and the proportion of UAA in Natura 2000 is interesting[27]. It may be that in this instance, the proportionate measure is not the most appropriate, and an absolute measure of Natura 2000 area might be more relevant. It is also interesting that there is no apparent correlation between axis 2 spending and areas at risk of soil erosion. There is no available, standardised CMEF characteristic which indicates pressure on water quality in the EU-27 programme areas. The data suggest a weak negative correlation between areas with more irrigated farmland and axis 2 funds. This could be a reflection of the lower nature value of intensively managed farmland, since irrigation may be most used in regions of productive agriculture.

For *axis 3*, (rural diversification and quality of life) characteristics correlated with spend include a few which seem intuitively reasonable (eg negative relationship between spending and a high proportion of productivity from secondary and tertiary sectors, more money in areas with higher farm labour force). But there are also several which do not seem rational (eg positive correlation with average farm size, also with % employment in secondary sector, greater forest area, more tourist beds and higher levels of farm diversification). For some of these characteristics, the fact that this is undifferentiated territorial level data (not distinguishing between rural and urban), may be a significant distorting element.

3.3.4. Conclusions to this analysis

Taken together, these descriptions provide some insights into the potential extent of RD targeting towards areas and situations with particular characteristics. In summary, the evidence of targeting is weak overall, but more strongly indicated in respect of axis 1 than in respect of the other RD axes. The clearest relationship between characteristics and spending appears to be in respect of axis 1 funds, which appear targeted to areas with relatively high dependence on agriculture, low GDP/capita, and small farms. In respect of axis 2 funding, it is possible that it is targeting areas of relatively extensive agriculture but there appear to be

[27] Please note that for the Natura 2000 characteristic, there were large gaps in data for the new MS in particular, so the relationships discussed here relate mainly to the EU-15.

other considerations also influencing allocations. In respect of axis 3, there may be some targeting reflecting areas with a higher dependence on agriculture, but again it seems that other factors are also relevant. The inability to distinguish rural from urban characteristics at programme level hinders the analysis in respect of axis 3, in particular.

At the same time, the findings demonstrate that this kind of analysis is relatively limited in its explanatory power, due both to the limited and undifferentiated nature of some of the characteristics used, and to the limitations of the available methodology for analysis.

When considering correlations between data sets it is important to consider where relationships might be expected. Rural development funds are targeted mainly on the agricultural economy. The extent to which this is linked to the wider economy in regions is therefore an important determinant of the linkages that rural development funding might be expected to have with regional characteristics. Assessments of agricultural employment in total employment and the percentage of GVA in the primary sector suggest that even in what might be thought of as rural regions or Member States, the contribution of the agricultural sector is fairly small. For example, even in what would be considered the most rural MS such as Romania and Bulgaria, the share of GVA in the primary sector accounts for only one eighth of total GVA and although the share of employment in the primary sector is larger, this sector still accounts for the smallest contribution to overall employment. This means that the likelihood of identifying a relationship between rural development funding and the wider range of regional characteristics examined here is therefore small.

There is also the issue of whether these analyses are meaningful at such a large spatial scale, where programme areas can be as large as an entire Member State, and even NUTS 3 regions may include large urban centres whose characteristics may dwarf those of their rural hinterlands. The number of tourist beds in a NUTS 3 region, for example, will include those in urban and rural areas and this will reduce the likelihood of finding any meaningful relationship between these and rural development funding. This is also the case even when considering characteristics such as percentage employment in the primary sector: a large concentration of agricultural workers in a NUTS 3 area which also includes significant urban areas, will be masked by the impact of the latter.

A third note of caution needs to be applied when we consider the nature of analysis involved, in respect of both characteristics and expenditures. The correlations undertaken show relationships between variables, in this case rural development spending and a range of characteristics. These do not cast any light on causality, they merely record an association. In many cases, associations could result without any specific causal relationship but simply because both of the variables being examined are independently associated with other characteristics which have not been analysed. For example, we expect that more RD funds will be spent in larger territories or territories with a larger rural or agricultural population, and for some of the characteristics here examined, their values will also be higher in such areas. Thus if we find weak correlations between these characteristics and spending patterns, it could be simply because both are influenced by the territorial extent of the programme area. Also, spending totals will be influenced by the prior allocation of funds through the different funding instruments operating over the period 2000-06. As we know, Guidance and SAPARD funding were specifically focused upon rural areas with low relative GDP/capita compared to the EU-15 average and these funds would together amount for a significant proportion of total funding to axes 1 and 3, over the period. It is perhaps unsurprising, therefore, to find that axis 1 spending is negatively correlated to GDP/capita.

3.4 Indicators of Need for Rural Development Expenditure

3.4.1 Introduction and conceptual approach

This section of the study concerns an attempt to develop a database of RD needs, for the EU-27, based upon the work on rural characteristics, reported in section 3.3. In doing so, the key questions that we have undertaken to address are as follows:

1. What might the relative needs of different programme areas be, across the EU-27, which provide an initial indicator of a possible justification for RD expenditure?
    - How are needs defined and discussed within the rural development literature, in Europe and internationally, and specifically within the context of EU policy?
    - How are needs conceptualised and described within RD programme documents? What other factors influence the perception and identification of needs at the RD programme level, and what approaches are used to characterise these?

2. Drawing from an appreciation of these different conceptions of need, what kind of quantitative and qualitative characteristics of the social, environmental and economic context of rural areas could be used to indicate approximate comparative needs for rural development expenditure between programme areas, across the EU-27?

These two questions are addressed, in sections 3.4.2 and 3.4.3, respectively.

3.4.2. Understanding how needs are defined and used within Rural Development research and policy

In this context and for the rest of this discussion, we use the term ‘needs’ to include both needs and opportunities that could merit rural development funding, each of which can be justified in relation to slightly different conceptual bases. Thus need = adressing gaps or weaknesses, or ‘playing catch-up’, while opportunity = identifying areas with potential for good positive responses, best impacts, or strong multipliers.

3.4.2.1 Approaches in the Literature

We undertook a literature review focused specifically upon conceptualising need for RD funding, in the context of the four main strategic goals of the EAFRD framework. These are: primary sector competitiveness; environmental management, rural diversification and quality of life, and integrated local development and governance. For each of the four broad objectives, key concepts in respect of ‘need’ have been identified by undertaking a brief conceptual review, which examined:

1. Relevant literature for needs in respect of rural development – reviews of rural policy and RD needs, pan-European studies and international reviews, as well as particular analyses of specific issues in particular Member States;
2. The SWOT analyses and ex-ante evaluation findings in draft RDPs which concern the identification of needs at programme level.

The review focused upon identifying the most important or consistent likely potential indicators of need, across the EU-27. Its findings are set out here.

Farming and forestry competitiveness

In developed economies, the 'needs' of agriculture and forestry relate mainly to adjustment and help for innovation and adaptation, as well as keeping up with market trends. The

justification for public money to the sectors is usually based upon the SME nature of many farm and forest businesses, resulting in relatively high transaction costs. It can also be based upon the multifunctionality of farming and forestry and the need to recognise and respect the wider impact of their development on environmental and socio-cultural contexts. There may also be a need to help farming families to maintain incomes as a result of the reduced returns to primary products, as economies grow: by enabling diversification and added value.

The emerging, former planned economies are also confronted with having to make rapid adjustment to manage exposure to both EU and also global markets, following decades of isolation and, in some cases, almost feudal landholding structures. In common with some cohesion regions within the EU-15, there remain large sections of their territories where farming is characterised by many small holdings producing at low levels of output, with an important social and semi-subsistence economic role. Farmers and governments in these territories may well seek to stimulate investment in the sector to enable business growth, technological change, increase in skills and the quality and quantity of marketable outputs. Here, growth and modernisation appear an important ingredient in the route out of rural poverty and this will drive perceptions and identification of needs for farming and forestry.

Nevertheless, these generalisations of developed and emerging economy concerns are simplifications, and no two countries face exactly the same issues. Similarly, areas or regions within countries also require individual assessment of their developmental 'needs'. A more accurate understanding should incorporate locally important factors such as population density/distance to population centres (and hence potential markets or labour sources), climatic conditions (which may be a comparative advantage or disadvantage), physical infrastructure (man-made and natural), and geographic isolation; all of which are likely to affect economic potential.

Territorial identity plays an increasing role in the development of local and regional businesses, who market that identity. This means businesses must engage with the unique cultural and environmental capital of the areas in which they are producing, maximising the potential value attached to their products as a result of 'embeddedness' and territorial association, and offering the potential to strengthen competitiveness without threatening distinctive assets.

Assessing needs

In the EU strategic guidelines for Rural Development, the emphasis is on creating a competitive and sustainable agri-food industry through knowledge transfer and innovation, and exploring opportunities for new enterprises and employment in the forestry sector, particularly in relation to renewable energy. Priority is given to increasing skills and facilitating knowledge transfer in order to make both farming and forestry more competitive and sustainable. In principle, any capital invested should benefit the sector as a whole, and not simply the individual beneficiary.

Table 3.10 sets out some key questions to ask when seeking to determine levels of 'need' associated with Axis 1, together with a number of indicators or criteria which could help decide on the level or type of support needed.

Table 3.10. Assessing farming and forestry sector needs

Key questions to ask	Useful Indicators/Criteria for judgement about types and relative levels of need
1. Is the sector competitive?	• Domestic and EU market share • Volume and value of exports • Assessment of potential for growth • Market orientation • GVA, or GVA/labour unit
2. Is the sector dynamic?	• Entry and exit opportunities – are these sufficient? • Intergenerational succession opportunities • Age structure of members and trends in these • Business size / scope trends – evidence of good adaptation to new markets and product differentiation
3. Is the sector innovative?	• R&D levels • Knowledge transfer opportunities • Continuous Professional Development uptake • Evidence of results of innovation: new products, new marketing channels, new customers, new business governance structures, changing sourcing structures
4. Is the sector market-orientated?	• Does it produce basic commodities or final products • Degree of consumer engagement and interest • Levels of consumer trust in the sector • Information dissemination to consumers/public • Level of market research conducted
5. Is the sector good at adding value?	• Quality products: volume and value, PDO/PGI registrations • The level of product qualification schemes • Share of final product value returned to primary producer • NVA (representing the value added net of costs)
6. Is the sector environmentally aware / sustainable?	• Levels of organic production • Level of Integrated Farming Systems (IFS) • The scale of use of sector protocols to induce / promote environmental criteria • Evidence of system change / adaptation to new environmental criteria • Synergies with environmental objectives (see for axis 2) • Responsiveness to alternative technologies (biofuels, energy generation, waste recycling)
7. Is the sector 'regionally embedded'?	• The extent to which local/regional resource potential is maximised (natural and cultural) • Evidence of the potential for synergies between businesses • Evidence of displacement effects between businesses • Evidence of 'halo' or indirect effects arising from an initiative by one group (positive or negative) • The potential for local employment creation
8. Is the sector responsive to public support?	• Level of long-term dependence on public support • Evidence of effectiveness of public support, including step-changes • Responsiveness of start-up funding success

Environmental management

For this particular category of needs, it is clear from the literature that the level of understanding, both of how to characterise needs and how to address these once identified, is less well developed than in other areas of activity in respect of rural development. This situation arises partly due to lower awareness of some issues until relatively recently, and partly due to the inconsistent nature of data and suitable indicators for some issues (e.g. biodiversity, water quality and landscape quality). The EEA and other organisations are currently working on a number of initiatives which will help to develop more comprehensive indicators of the state of Europe's rural environment, and the scope to address needs through policy action. As a result of the relative infancy of this exercise in this context, we developed a range of quantifiable indicators for each of these key questions and set this out in a spreadsheet (1 sheet per area of concern). The details are in annex 2a to this report. We present a simplified table, here[28].

Table 3.11. Areas and concerns relevant to assess Environmental needs

Area of concern	Headline question to ask	Potential indicators for judgement – examples
Biodiversity	Is biodiversity declining?	Farmland bird index trends Extent and condition of N2K farm and forest sites Agricultural intensification / extensification Maintenance of HNV farmland Invasive species Genetic diversity of farmed species Tree species composition of forests Defoliation, threatened forest species Extent of forest fires
Water quantity	Is the rate of freshwater abstraction sustainable?	Water abstraction rates, irrigated area Groundwater levels, river flows Damage to freshwater habitats
Water quality	Is freshwater quality of an acceptable standard?	N, P and pesticides in water Gross N balance, share of agriculture in nutrient contamination
Soil resource	Is soil erosion at a sustainable level?	Area of soil at risk of water and wind erosion Soil cover on farmed land
Climate change	Is the contribution of rural areas to GHG emissions unacceptable?	Contribution of rural areas to C-sequestration Woody biomass Land cover change, land abandonment
Landscape	Is landscape diversity changing to the detriment (quality or quantity) of traditional cultural landscapes?	Land cover change, land abandonment Land take Extent of traditional landscapes Extent and condition of landscape features (ponds, woods, permanent crops, linear features)
Other	Is rural areas' contribution to acidification acceptable? Is animal welfare adequate?	Emissions of ammonia and acidifying substances Proportion of farms adopting higher than legal minimum welfare standards

Enhancing the rural economy and quality of life

This goal aims at sustaining a living countryside while maintaining and improving the social and economic ´fabric´. Rural economy and society are the focus of the axis, and are strongly intertwined. Rural communities are defined by family, neighbours and friendships. Members are at the same time consumers and users, as well as producers and providers. Rural areas are the basis for both economic activities and social life. Geographic, population or

[28] Dwyer (2007) provides a current assessment of environmental needs at EU level, in respect of rural land use.

infrastructure features pose challenges as well as opportunities to people living in rural areas, which differ from those in urban or peri-urban areas. The rural economy and society must provide material and social health and wealth for residents; a contribution to the wider economy; vibrant community life and scope for participation in political and social life. Indicators of relative economic performance are mostly based on quantifiable factors, but they also need to take into account qualitative factors. Those contributing to social well-being concern health, community life and participation, security and safety and material well-being.

Assessing needs

Indicators for economic performance and demography are often available from national statistics. For indicators of social welfare it is difficult to provide a comprehensive analysis if only taking into account quantitative indicators: in this case it is essential to take the voice of the residents as an important criterion of judgement. A feeling of community often depends on cultural values, relationships, a sense of belonging and identification with the area. This cannot easily be measured in objective or comparable terms, between territories.

Table 3.12 Assessing needs for enhancing the rural economy and quality of life

Key questions to ask	Useful Indicators/Criteria for judgement
Is the economy in the area using local resources and taking into account aspects of sustainability?	• Land use structure • Number of (registered) businesses by type • Number of new registered businesses in the past year • Sectoral employment shares • Net revenue by enterprise sector • Indications of single industry and or single sector dependency • Self employment rates • Ratio of renewable consumption to total energy consumption • Waste disposal per capita
Is the infrastructure providing for economic performance?	• Peripherality • Supply of broadband and other communication services • Estimated traffic flows for all types of vehicles • Length and quality of road network • Coverage and frequency of public transport
Is the economy making use of and enhancing local skills?	• Percentage of low skilled and high skilled workers • Index of innovation • Number and quality of education facilities (schools, colleges) • Number of students enrolled at education facilities
Is the economy providing for the material wellbeing of the rural population?	• GVA per capita • Average income per capita • Regional net migration balance • Employment of working age population • Unemployment rate • Percentage of resident workforce working outside • Share of population of working age receiving social payments • House price / income ratio • Household accommodation without central heating
Is the social welfare of the rural population provided for?	• Accessibility of public services (number of facilities per capita) • Infant mortality rate • Percentage of households with persons with a limiting illness • Number and quality of community facilities for sports, children, culture, parks and open spaces • Crimes and offences committed by type per 1000 population • Gender equality: ratio of female to male average earnings • Evidence of political freedom and civil liberty • Relative satisfaction of population with social well-being

The LEADER approach - local development and integrated actions

The LEADER approach entails devolving decision-making to the local level where appropriate, and improving the relationship between local communities and government structures. The intention is that Local Action Groups (LAGs) will deliver locally-tailored decisions through building locally-led partnerships. LAGs should build a broad partnership of local interests, facilitating the integration of social, economic and environmental agendas in a way that is most relevant to local people. As a result, LEADER has the potential to help develop greater rural community capacity. One of the key questions to ask is the extent to which there is evidence of social capital within rural areas, and the potential to develop effective LAGs.

The questions in table 3.13 would normally be most easy to answer at the level of individual communities. Clearly we cannot do this directly. As with the approach for other types of need, it will be important to consider the frame of reference here – other regions within the Member State is a possible and valid reference frame for federal countries, but to make valid international comparisons for national LEADER programmes appears difficult.

Table 3.13 Assessing needs for local development and integrated actions

Key questions to ask	Useful Indicators/Criteria for judgement about types and relative levels of need
1. Are there high levels of social, environmental and economic engagement in rural areas?	• Active rural stakeholder groups and community associations and activities • Voter turnout at elections • 'Charismatic' local leaders
2. Are there generally good levels of bonding capital among rural actors?	• Evidence of successful conflict resolution • Regular rural communication outputs - magazines, shows and festivals, websites
3. Are rural communities and businesses well-networked, with high levels of bridging capital?	• Levels of regional infrastructure • Regular communication, both institutional and individual • Examples of good practice in terms of co-operation between different sectors and stakeholder groups • Collective outputs – eg integrated tourist trails, new business ventures, new community services • Local services buoyant
4. How successful have been existing Leader programmes in identifying and meeting rural needs?	• Articulated plans for the future, in rural communities • SWOT of LEADER in previous periods, and outcomes • Capacity to enlarge coverage – would the experience be replicable in other parts of the programme area?

3.4.2.2. Approaches in RD Programmes and Strategy documents

Within the framework of a rural development programme, the analysis and identification of needs is one of the preliminary steps. The identification of needs flows directly into the identification of objectives, and consequently should influence the choice of policy instruments and allocation of financial resources. The technical guidelines from the European Commission strongly recommend that Member States and programming authorities follow this logical process, when preparing their RDPs, and Commission desk officers seek to verify this, during negotiations on draft RDPs.

In reality, this process may not be so linear. The concept of need, as used in RDP planning, is both partly *objective* (and thus can in theory be formalised through common indicators), and at the same time partly *subjective,* because it reflects the perceptions of the main actors and stakeholders participating in the construction of the policy strategy. Thus, there are some

basic conceptual issues which must be considered in the analysis of needs for rural development. These are as follows:

- What factors influence the identification of needs?
- What are the reference points of comparison, for identification of relative needs?
- How are indicators of need used in drafting policy programmes?

What factors influence the identification of needs?

In theory, a complete diagnosis of weaknesses and strengths (as part of the SWOT analysis during RDP preparation) should be the basis for the identification of needs. This diagnosis should identify the problems to be addressed and the rationale for public intervention. In this process, differences between the characteristics of areas are very important for the identification of needs, such as between different types of rural area (e.g. peri-urban, remote, growing or suffering from economic decline). Needs emerge also from contrasting agricultural systems (e.g. different needs for 'Mediterranean' production systems and 'continental' ones, within the same region).

In the process of rural development planning, needs are typically described in the National Strategy Plans and then explored in more depth in the initial chapters of RDPs, particularly in SWOT analyses. Thus to build a picture of how needs are identified in programming, we need to examine both these sources. Within the resources available to this study, an exhaustive examination was not possible. Therefore a two-stage approach was adopted:

- A brief analysis of texts of all available National Strategy Plans and draft RDPs;
- a more detailed assessment of 10 agreed or latest-draft RDPs from a contrasting selection of programme areas, namely:

  EU-15
  - UK: England and Northern Ireland
  - Italy: Campania and Emilia-Romagna
  - Germany: Sachsen-Anhalt and Rheinland-Pfalz
  - Sweden

  New MS
  - Bulgaria, Lithuania, Czech Republic.

The selection of these 10 areas is explained more fully in section 3.5 of this report.

Brief analysis of NSPs and draft RDPs

Analysis of needs based upon a variety of characteristics and indicators has been made in most of the National Strategy Plans for 2007-13. The analyses are rarely strictly comparable between plans, not least because many use a typology or definition of rural areas which is specific to their own context. In addition, the choice of indicative characteristics varies between territories, and most assessments are made on the basis of quantitative indicators and qualitative arguments derived from secondary sources (research literature and evidence from stakeholders). Nonetheless, it is clear that economic, social and environmental characteristics are all considered legitimate indicators of need for RD expenditure.

What are the reference points of comparison for the identification of needs?

Considering programme-level indicators, in many RDPs socio-economic and environmental baseline indicators are compared with the average for the Member State (particularly in the case of regional programmes), to indicate relative need. In other cases, particularly for sub-regional targeting, the point of reference may be the regional average (this is the case in some regional programmes and also a few national ones). In other cases – this is most common among the programmes of the new Member States - comparison is made with EU average values. This suggests that the reference point is frequently that which is closest to the level of the Programming Authority, i.e. the choices are relative, rather than absolute.

How are indicators of need used in draft RDPs?
The Commission's CMEF Guidelines encourage programmes to use standard and common indicators for identifying characteristics and thus considering needs. Member States present many CMEF baseline indicators in these documents. However, many use rather different measures or indicators to characterise specific needs in their NSP and RDP, usually developed from more qualitative and specific (programme-level) analytical perspectives, which vary considerably between programmes. Nevertheless, some key themes recur, and the range of characteristics used to explore these themes is broadly consistent with those set out in section 3.3.

Presentation of RD needs at programme level
A wide range of RD needs and opportunities are covered: economic, social and environmental. In most cases that we examined, programme authorities produced broad SWOT analyses and related these to priorities for funding, and selection of measures. In some cases such as the Italian regions, a common, structured analysis was undertaken in which sub-regions were characterised using different datasets, typologies identified, and measures and resources allocated on the basis of these. In other cases, the narrative in the programming documents is more qualitative and generalised and thus it can be difficult to relate all needs to specific characteristics supported by data. Nevertheless in most cases there is evidence from consultation processes that a range of rural stakeholders is broadly satisfied with the choice of measures and funding, which suggests general support for the identified needs.

Economic needs are readily apparent, and clearly felt most acutely, in the new Member States and convergence regions. They are typically characterised as needs for assistance to help the farm and forestry sectors to become more productive by overcoming significant barriers to development (mainly low levels of physical and human capital and poorly developed structures). The usual concern is with very small farms of low productivity generating low levels of income which, on their own, lack the capacity to invest in new technologies to raise productivity and incomes. The relative importance *of farm structures* as a perceived indicator of economic need is notable – programme areas with a predominance of very small farm holdings tend to prioritise economic needs particularly strongly. However, other indicators such as *declining population, ageing workforce, few other economic opportunities outside agriculture, and high rural unemployment,* are also cited as providing evidence of significant economic needs. Many programmes identify needs for the broader rural economy, including both convergence and non-convergence territories.

Often, the same characteristics (poor farm structures, population decline, unemployment) are used to discuss **social needs** in rural areas. Others include *low levels of training and education among farmers* and other rural inhabitants, and a *lack of suitably-skilled people* to lead partnerships or projects. Rural services and infrastructure are also cited as in need of resources, in the context of quality of life goals, but these tend to be justified without quantified characteristics. Some RDPs make reference to social exclusion and a need to increase the involvement of women and young people in the workforce, or to improve their access to services. Again, these needs are based upon prior research, not characterised by simple indicators.

Environmental needs are almost universally recognised in programmes but tend to be given more analytical prominence, and thus greater priority, in areas where rural economies are more viable (e.g*. good balance between sectors, low unemployment*). RDPs tend to look at High Nature Value (HNV) areas, the relative abundance of priority species and habitats, poor water quality or water scarcity, and soil erosion, as key indicators of need. The area of

land either designated or proposed as *Natura 2000* is often used as a proxy indicator for biodiversity need. This clearly relates to the Habitats Directive target of 'favourable conservation status' for sites, which is also highlighted in the Community Strategic Guidelines. There is also reference to landscape quality and threats from neglect of feature maintenance – usually because farms no longer have an economic incentive to undertake this. Quantified landscape indicators are frequently lacking, although the potential clearly exists (eg length of linear features, field size, woodland area and plot size, etc).

Some illustration of how needs have been presented in different RDPs is given in the following paragraphs. These indicate the variety of characteristics used to support evaluation of needs (highlighted in bold), and the nature of more qualitative needs assessments.

Lithuania's **GDP per capita was only 54.8% of the EU average** in 2006. The agriculture sector in Lithuania is dominated by small semi-subsistence farms with **two-thirds of all farm holdings being less than five hectares**. The incomes of semi-subsistence farms are insufficient to enable farming methods to be upgraded and modernised. The development of market oriented farms is therefore slow and there is a lack of investment capital and insufficient human capital. There is therefore a need to provide support for these semi-subsistence farms. Co-operatives and producer groups are seen as one way of improving the quality of produce, increasing production, improving added value and increasing competitiveness, and overcoming a lack of co-operation between farmers. However these groups are unpopular due to the Soviet experience. **17.5% of the UAA is affected by soil erosion** which reduces productivity. Soil erosion is mainly a problem in hilly LFAs. There is a need for appropriate farm management to alleviate this problem, for example, maintenance and establishment of grasslands, promotion of organic farming and afforestation. There are **266 proposed SCIs and 77 SPAs in Lithuania. The Natura 2000 network covers 12% of the country and management restrictions affect 13,000 ha of farmland and 309,000 ha of forests,** but designation is not yet complete.

In Northern Ireland**, less accessible rural areas have lower household incomes and a lower rate of growth of household incomes** than either accessible rural areas or Belfast Metropolitan Urban area, although other urban areas are lower still. **Family sizes are larger in rural areas**, exacerbating poverty**. Average gross weekly earnings per head** have been lower in inaccessible rural areas than in accessible rural or urban areas. Since 1980, the total number of persons recorded in the Agricultural Census as **working on Northern Ireland farms has fallen by 25%** to 51,000 in 2005. There has also been a **shift from full-time towards part-time and casual working** patterns. **Full-time employment is lower in rural areas** although there is a considerably **higher rate of self-employment**. **Unemployment is lower in rural (3.6%)** than in urban areas (4.2%). Unlike the urban population, **the rural population is expected to increase**, increasing the need for employment opportunities. The SWOT analysis identifies a slow erosion of water quality over many years. Between 1990 and 2003, '**the river length of good biological quality has fallen from 40.8% to 23.5% while that classed as fair quality has increased from 56.6% to 76.1%**[29]', although chemical quality has improved.

In Sachsen-Anhalt, the RDP baseline analysis showed that the **per capita GDP** is significantly lower than the German national and EU 25 averages. The **employment rate** is comparably low and **unemployment rate** almost double the German average. The RDP needs assessment gives emphasis to the following aspects:

[29] Environment Agency, Scottish Environment Protection Agency, Environment and Heritage Service NI – river quality monitoring data.

- **Production deficits** in e.g. horticulture, specialised cultures and animal production; as well as **income disparities, lack of capital and low liquidity**
- A **lack of competent and qualified personnel** is anticipated, due to demographic trends and deficits in the quality of human capital;
- Broadening the food industry economy in Sachsen-Anhalt is seen as the starting point to strengthen sector competitiveness, improve incomes and create jobs in rural areas;
- The agriculture and food sector has to face less stable conditions than before, due to market liberalisation. These and tightened requirements in environment, nature protection, animal welfare and food safety, require substantial adjustment;
- Regarding wider economic, labour market and demographic challenges, the situation in rural areas does not differ from the situation in towns, and overall;
- Infrastructure is a problem in rural areas, especially transport infrastructure, schools and day-care nurseries have a need for modernisation and expansion.

Concluding remarks on programmes' identification of needs

Evidence from previous studies (eg Dwyer et al, 2003), as well as sections in the 2007-13 RDPs which reflect upon changes since the 2000-06 period, indicate that the recognition and justification of needs has become more prominent in RD programmes for 2007-13. Where available, consultation responses also offer views on how understanding of RD issues and needs has developed since 2000-06, and how expert opinions on this matter have been taken into account. These sources suggest that RD needs are now more clearly conceptualised and evaluated than when the 2000-06 programmes were first designed.

3.4.3. Developing appropriate 'indicators of need' for an EU-27 database

3.4.3.1. Nature of the task

The original project specification tasked the study with developing two *databases* of indicators of need, one for all EU-27 programme areas and one at NUTS 3 level for the EU-15. The inference of this requirement was that the values in the database(s) should be based upon objective measures, so that they can be used for comparisons across programmes. Thus the approach should use consistent and reliable EU-level datasets. For this, our study had to develop a new method to generate largely qualitative, but nonetheless comparable, 'indicators of need'. This entailed 3 stages:

1. We developed a refined dataset of RD characteristics, seeking to address some gaps and weaknesses identified in section 3.3;
2. We grouped individual programme areas according to the range of values of each characteristic that they displayed, separately for each characteristic, using three or five bands covering the range of variation;
3. We examined the scores for programme areas separately for groups of characteristics that were relevant to each main goal of RD activity.

Each of these stages, and its findings, is reported in detail, below.

3.4.3.2 Refined and expanded characteristics dataset

Assessing the match between the initial undifferentiated programme-area characteristics and the 'ideal' types, its balance was assessed and a gap analysis was made (section 3.2 of this study report). This highlights the relative weakness of environmental and social indicators among the data, the insufficiently rural-focused nature of several of the social and economic characteristics, and also the lack of any trend data which could be valuable in determining how rural areas were evolving over time. These conclusions were used as a guide to

generate a revised set of characteristics. For this, we sought more data from Eurostat, the Commission and the EEA to address gaps (as far as possible), and narrowed and refined the selection of CMEF categories used, to improve data coverage as well as the balance and rural-specificity of the characteristics. In making these choices, the results of the correlation analysis described in section 3.3 were also considered, as well as our review of how needs are identified in the literature and in RDPs (3.4.1).

Table 3.14 summarises the characteristics assembled, and indicates the data sources and calculation methods used for each one, as follows:

A. data from the 2006 RD CMEF tables, as completed for task 2.2 (section 3.3);
B. new data compiled directly from Eurostat/EEA or DG Agri, using undifferentiated figures at programme level;
C. data from Eurostat compiled using ONLY data for the OECD-defined 'Predominantly Rural' NUTS3 level areas, within each programme area. This does not capture all rural areas (the OECD classification also has a category of 'intermediate rural' area) but it focuses on the most rural, both for the sake of simplification and because many rural needs can be expected to be more acute in the predominantly rural areas. The aim was to ensure that we captured characteristics which were specifically rural.

This set of characteristics is thus more complete than that described in section 3.3, and it is more closely focused upon indicators that are likely to be directly relevant to RD needs, as ascertained by the analysis in section 3.4.3.1. From this, a revised database (database 6) of key characteristics at programme level was compiled (combining type A and B data). A separate database of key characteristics for the predominantly rural NUTS 3 areas within each programme area (database 7 – type C data) was compiled. A few characteristics are still subject to important gaps in coverage, as follows.

- For some environmental characteristics, there are significant gaps in available data from Eurostat and EEA, particularly in respect of the new Member States. This affects the variables 'areas at risk of soil erosion', and '% irrigated area', as well as 'UAA under organic farming' and the share of different types of land cover. These gaps limit the usefulness of these characteristics as potential indicators of need, thus we have not scored them.

- Even after revision, the dataset is relatively poor at reflecting the wide range of potentially useful social indicators discussed in section 3.2. The main reason is that while much data covering these kinds of variable is available in undifferentiated datasets at national level, there are major gaps in coverage at NUTS3 level which limits the opportunity to differentiate between rural and urban territories.

- Within each dataset, values for a minority of individual programme areas are missing. Within the NUTS 3 level database, some values are combined across a group of territories and cannot be disaggregated. Where these problems occur, we have recorded the value for the territory as 'unavailable'.

Table 3.14 Revised set of characteristics for development of indicators of need

Variables, grouped by key areas of RD concern	Units	A	B	C
Economic				
1. Rural wealth				
PRA* GDP/capita 2004, and %change '99-04	Euro/hd, %			X
Productivity of agriculture/forestry				
GVA in primary sector (NACE class AB) and % change '99-04	Euro, %		X	
Rural productivity				
PRA*, GVA all sectors	Euro			X
Rural employment				
% of workforce PRA* registered unemployed, 2004				X
Share of agriculture in total PRA* employment	%			X
Farm incomes				
'Average farm incomes' 2000, 2005 and % change (SGM / AWU)	Euro, %		X	
2. Measures of primary sector innovation/ quality				
Number of patent applications primary sector, 2002, per AWU	Number/hd		X	
Total number of PDO and PGI registrations, 2006, per AWU	Number/hd		X	
Measures of economic diversification				
% agricultural holders with other gainful activity	%	X		
Number of tourist bed-places per head of population, PRA*	Number/hd			X
Farm structures				
Average area farm size	Ha	X		
% of holdings with less than 5 ha UAA	%	X		
% of holdings with 50 ha UAA or more	%	X		
Average economic farm size	ESU	X		
% of holdings with less than 2 ESU	%	X		
% of holdings with 100 ESU or more	%	X		
Social				
Population change				
Average population change PRA*, '99-04	%			X
Skills in primary sector				
% farmers with basic and full education attained, 2002	%	X		
Training in rural areas				
% of 25-64 yr. Olds participating in education and training, PRA*	%	X		
Environmental				
Pressures on basic resources (water, soil, air)				
Areas at risk of soil erosion	Ton/ha/yr	X		
% irrigated UAA	%	X		
Crude stock density: total number of livestock divided by UAA	LSU/ha		X	
Character of the environment				
% Land Cover, by type: agricultural, forest, natural, artificial area	%	X		
Forest/wooded area	Ha		X	
3. Extensive farming areas				
% UAA where cereals yield < 60% of EU-27-average)	%	X		
% UAA where livestock density < 1 LU/ha of forage area	%	X		
4. Biodiverse areas				
% UAA under Natura 2000 (SCI)	%	X		
UAA under organic farming	%	X		

*PRA = data for the predominantly rural NUTS3 areas within each programme area, only

Key issues in choice of indicators and in the variation that they exhibit are described below.

Economic indicators

Rural Wealth – GDP/capita in predominantly rural areas at NUTS 3 level

There is a very wide range of variation in this characteristic across the EU. The lowest levels, around 10% of the EU average, are found in Bulgaria and Romania and the highest (over 125% of the EU average) in rural Sweden, Denmark, Finland and parts of Ireland, plus a few areas in UK, Germany, Italy and Austria. Across the EU-27 the trend is for growth over the 1999-2004 period. However, in a small number of areas (4 in Germany, 8 in Greece) GDP/capita has actually declined, and in many areas in a variety of Member States the increase is lower than the average for the EU-27. By contrast, some areas, particularly new MS, exhibit dramatic increases (>50%) (Slovakia, Romania, Bulgaria, Poland, Lithuania, Latvia, Estonia, Hungary, also some regions of Ireland).

Productivity of primary sector – whole programme areas

This measure of farm and forestry competitiveness has been standardised by reference to the labour force of the primary sector, to enable comparison between areas of very different size and population. Thus we are measuring labour productivity, which is clearly a rather narrower concept than might be ideal (total factor productivity is preferable, but was not possible with the available data). Those areas with lowest productivity per unit labour in agriculture include Slovenia, Poland, Latvia, Lithuania, Estonia, Bulgaria, Hungary and one region in Spain. The highest are Sweden, Netherlands, 3 regions in Italy and 1 in Germany.

Rural economic productivity (all sectors) – predominantly rural areas

This characteristic is less used in RD policy literature but has relevance to the viability of the rural economy, and helps contextualise the economic performance of the primary sector. In our programme-level analysis (Section 3.5), we note instances where the relative wealth or performance of agriculture outstrips the rural economy more broadly, creating a degree of social tension in RD policy, particularly as RDPs tend to be directed mainly at the farm and forestry sectors. Achieving balanced development of rural areas is important, so examining rural productivity alongside primary sector productivity is essential. The data indicate a decline in rural GVA/AWU in a few regions of Germany, and rural Romania, 1999-2004.

Dependence upon primary sector

Relative dependence on the primary sector is highly variable between the predominantly rural areas of different Member States. Those with over 20 per cent of workforce employed in agriculture include Greece, Spain, Lithuania, Poland, Portugal, Austria, and Bulgaria (figures for Romania are not available), while those with the lowest proportion include Sweden, Denmark, the Netherlands, Belgium and a range of German Länder.

Farm incomes

Ideally, we should use a measure of total household incomes to examine standards of living in rural areas. However, the only income data available for all areas in standardised form is for agricultural income, expressed as total gross margin: the combined return to the sector from the production and sale of all agricultural outputs. To create a comparable value between programme areas, we divided this by the workforce. Once done, the variation between programme areas is significant. The lowest levels of farm income are found in the new MS except Poland and Czech republic, also in many regions in Italy and one in Spain.

Measures of primary sector innovation

This is an important rationale for intervention to promote competitiveness, picking up clear themes from the Lisbon Strategy. Evidence suggests that innovation and the development of new, value-added products can be a critical factor in competitiveness. However, it is not an

easy characteristic to measure. We focused on two potential indicators for the primary sector, also recognising 'value-added' or 'quality' products: the number of patent, and the number of PDO/PGI product, registrations. To enable comparison, figures were divided by the total primary sector workforce in each programme area. The lowest level of patent applications was seen in Poland, Portugal, Hungary, Ireland, Slovenia and Slovakia, Greece, Czech republic and several Spanish regions. Low rates of participation in PDO or PGI schemes are seen in a variety of programme areas, but particularly north east Scotland. It is possible that a number of non-sector specific data – most notably, regional innovation indices - might prove more useful as an indicator of innovative capacity within a territory; if further work on these indicators is undertaken, in future.

Diversification of the rural economy
Diversification can be an important strategy for overcoming the limited earning potential of small farms. However, the areas in the EU with the highest proportion of farms with other gainful activities include some with relatively large farms and few with small farms. The territories where more than 40% of farms have diversified comprises: Ireland, Cyprus, Czech republic, Baden Wurtemberg, Bayern, Brandenburg, Hessen, Thuringen, Nordrhein Westfalen, Rheinland Pfalz, Saarland, Sachsen, Denmark, Estonia, Valencia, Finland, Calabria, Malta, Sweden, Slovenia, Slovakia and England. This group includes areas with high agricultural productivity and higher than average GDP in predominantly rural areas, as well as others where these aspects are weak. Looking at the degree of development of tourism in predominantly rural NUTS 3 areas within the programmes, via the number of bed-places per head of population, again there is a wide variation. However it seems that this sector is more developed in the EU-15 than in the new Member States.

Farm structures
Farm size in hectares varies considerably between programme areas. In respect of territorial extent, the programme areas with the smallest farms (< 5 ha ave size) include many in southern Member States: Bulgaria, Cyprus, Valencia, Canaries, Liguria, Campania, Puglia, Calabria, Sicily, Malta and Romania. However, for some of these areas, holdings produce higher value outputs (eg fresh fruits, salads) on small areas of land. From the perspective of the economic size of holdings (in ESU), many southern MS areas are no longer among those areas with the smallest holdings (< 2 ESU). Instead, the picture heavily reflects the new Member States: Bulgaria, Estonia, Hungary, Lithuania, Latvia, Poland, Romania and Slovenia, as well as Valle d'Aosta in Italy.

Social indicators
Population change
Population in the predominantly rural areas of Member States has been growing in some, and declining in others. Those with steady growth, 1999-2004 include predominantly rural areas of Belgium, the Netherlands, and most of those in France, Hungary and Ireland, while steady decline is seen in Lithuania and most of Poland. Elsewhere, the picture is much more varied between individual NUTS 3 territories.

Skills in primary sector
This characteristic captures the educational attainment of farmers as an indicator of their likely managerial and business skills. This is important for characterising the nature of the sector (relevant to axis 1), as well as an indicator of human capital in rural areas, especially if analysed together with data on the relative dependence upon agriculture of different rural areas. The new MS clearly have the lowest levels.

Levels of education and training in predominantly rural areas
This characteristic gives a more general picture of skills levels in rural areas. Again, much lower values are seen in new MS, especially Bulgaria and Romania.

Environmental indicators
High nature value areas
The variation in the proportion of UAA designated as Natura 2000 is so dramatic that it suggests this may reflect relative progress with site designation more than territories' 'objective' natural assets. However, this variable is related to a European standard with widespread peer review, so this effect should diminish over time. Notwithstanding these caveats, those areas reporting above 20% of UAA as N2K include around half the Spanish regions, Finland, Greece, Portugal and Sweden.

We can also consider the likely biodiversity value of programme areas by identifying the significance of areas of extensive cropping or grazing systems. On this basis, those most valuable would appear to include, for arable: Cyprus, Estonia, Castilla-la-Mancha, Baleares, Murcia, Puglia, Basilicata, Sicily, Lithuania and Latvia; and for livestock: Austria, Hamburg, Bremen and Berlin, Saarland, Estonia, Asturias, Cantabria, Extremadura, Valle d'Aosta, Liguria, Bolzano, Trento, Abruzzo, Sardinia, Slovenia and Scotland. The extensive arable areas are almost exclusively in southern Europe, while extensive livestock is more a function of poor soil or climate for grass growth, which applies to areas in both north and south.

Areas under environmental pressure / facing negative externalities from land use
Another important consideration for identifying potential 'need' for environmentally targeted resources within RDPs is relative pressure exerted by negative externalities from modern agricultural (and other) production. It is possible to attempt to characterise the degree of pressure exerted by intensive livestock production by making a simple calculation of the broad stocking density (LU/ha of total UAA). However this will not enable the identification of intensively managed arable areas and will not pick up areas of intensive management with both arable and livestock. Unfortunately we cannot source standardised data on arable yields by programme area, which might be of use in determining the degree of agricultural pressure on the environment in respect of arable farming, across the EU-27. It has also not proven possible to obtain programme level data on the quantities of agricultural inputs of pesticides or fertilisers purchased or used, which could have been another interesting indicator. Finally, the soils and irrigation indicators are subject to large gaps in coverage and thus could not be used here. The livestock indicator shows up most strongly in the Netherlands and Belgium.

3.4.3.3 Sorting and scoring characteristics

There would seem to be a clear logic for focusing conceptions of distinct types of need broadly around the second-level goals of each main purpose of RD funding – the aims applied to groups of measures in the Regulation. These have generally distinct purposes that appear to correspond fairly well to the kinds of characteristic that we have been able to compile (eg distinguishing between agriculture/forestry and wider economic goals, and within agriculture and forestry, separating the development of human capital from that of physical capital, and adding value). Tables 3.15-17 link these broad but distinct RD goals to those characteristics compiled which could indicate need, for measure-groups in each axis. The tables also consider the appropriate frame of reference for comparisons. Tables 3.18-19 detail the banding system used, to score the final selection of key characteristics.

Table 3.15. Axis 1 – Improving competitiveness of farming and forestry

Goals: purpose of intervention	Potentially relevant characteristics from databases	What defines need for spend?	Ref.-frame
1- promoting knowledge and human potential	Levels of educational attainment by farmers and foresters	Relatively low levels of attainment	EU / MS
2 – restructuring and developing physical potential	Farm structures (business size/area of holdings) GVA per unit of labour force Farm incomes per holding	Small size, low productivity low incomes	EU
3 – quality products and production	Number of quality labels Number of patents in primary sector Area of land under organic farming	Few quality products/patents little organic land	EU

Table 3.16. Axis 2 – environmental land management

Goals – purpose of public intervention	Potentially relevant characteristics	What defines need for spend?	Ref-frame
Protecting and managing high-nature value, biodiverse or critical ecosystem regulating habitats	N2K areas notified/proposed Organic farmed area Soil at risk of erosion Extensively farmed areas	Large N2K areas Low organic area Large areas at risk of erosion Large extensive areas	Scalar: more = more need
Preserving the environment by maintaining traditional and environmentally beneficial farming in marginal areas	Extent of low-intensity farmed areas Productivity of agriculture (GVA per AWU) Share of primary sector in rural employment	Large extensive areas needing management, high economic dependence on low productivity agriculture	EU
Animal Welfare	Livestock densities - qualified by knowledge of MS welfare situation	Most intensive production likely to indicate more need	EU
Protecting and enhancing valued forests	Total area of forests % at risk of soil erosion Share of forest and other wooded land	High proportion of land under erosion risk Low and/or declining woodland share	Scalar
Creating new forests of environmental value on former farmland	Share of forest and other wooded land	Areas with relatively low share of woodland	EU

Table 3.17. Axes 3 and 4 – diversifying the rural economy, improving quality of life and strengthening rural governance and local capacity

Goals – purpose of intervention	Potentially relevant characteristics	What defines need for spend?	Ref. frame
1. Diversifying rural economy	Share of agriculture in total rural employment GVA of agriculture as a proportion of GVA of rural areas Proportion of holders with other gainful occupation	High dependence on low productivity agriculture as an employer, few other productive sectors, Level of farmer pluriactivity	EU
2. improving quality of life	Rural population change 1999-2004	Population decline	Scalar
3. Training and information	% rural population in education and training	Low levels of participation	EU
4. Skills acquisition and capacity building	% rural population participating in education and training	Low levels of participation	EU

Table 3.18. Indicators of need: final selection and scoring for undifferentiated programme-level characteristics

Variable	Bands	How to score
Economic		
Productivity of agriculture/forestry		
GVA in primary sector (NACE class AB) per AWU, 2004	Equal range cohorts	A to E, A lowest
Measures of primary sector innovation/ quality		
Total number of PDO and PGI registrations, 2006, per AWU of those employed in primary sector	0-0.3, 0.3-0.6, > 0.6	ACE, A for the lowest values
Number of patent applications in primary sector, 2002, per AWU employed in primary sector	As for PDO/PGI	ACE, A for the lowest values
Measures of economic diversification		
% agricultural holders with other gainful activity	0-25, 25-50, 50+	ACE, A lowest %
Farm structures		
Average economic farm size	0-5, 5-10, 10-50, 50-100, 100+	A to E, A smallest
% of holdings with less than 2 ESU	20% bands	A to E, A highest %
Social		
Skills in primary sector		
% farmers with basic and full education attained	15% bands, >60 top	A to E, A lowest %
Training in rural areas		
% of 25-64 yr. olds participating in education and training, predominantly rural areas*	0-4, 4-8, 8-12, 12-16, 16+	A to E, A lowest %
Environmental		
Pressures on basic resources (water, soil, air)		
Crude stock density: total livestock units divided by UAA	0-0.3, 0.3-0.6, 0.6-0.9, 0.9-1.2, > 1.2	A to E, A highest densities
Extensive farming areas		
% UAA where cereals yield < 60% of EU-27-average)	0-20, 20-40, > 40	ACE, A highest %
% UAA where livestock density < 1 LU/ha of forage area	0-30, 30-60, > 60	ACE, A highest %
Biodiverse areas		
% UAA under Natura 2000 (SCI)	0-8, 8-16, 16-24,24-32., 32+	A to E, A highest %

Table 3.19. Indicators of need: final selection and scoring for PRA* variables

Variable	Bands	Score
GDP per capita, 2004	< 75%; 75- 95%, within + or - 5%, 105-125%, and over 125% of EU average	A to E, A lowest value
% change per capita GDP, 1999-2004	Decline; growth less than EU average; growth at/over EU average	A, C or E, A for decline
Change in average population, 1999-2004	Decline > 20%, 2.5 - 20%, within + and – 2.5%, increase 2.5 - 20%, > 20%	A to E, greatest decline scored as A
% unemployment in 2005	>6% above or below EU average; 2-6% above or below, -2 - +2%	A to E, >6% above as A, >6% below as E
Share of agriculture in the total workforce	0-5%, between 5 and 10%, 10-20%, 20-40%, over 40%	A to E with the category of over 40% scored as A

*NUTS3 level Predominantly Rural Areas, within each programme area

3.4.4. Results – indicators of need

The results of the scoring exercise generated tables which are presented as separate datasets in databases 6 and 7 (banded characteristics). Tables 3.20-22. illustrate a selection of scores, showing how they vary between programme areas. Annex 2 illustrates the data in mapped form, and details statistical variation within the bands, for each characteristic. The results show how such indicators could suggest the relative priority to be accorded to each of the axes and even measure groups within axes, if considered individually, between programme areas. However it would clearly be inappropriate to use them to make comparisons across axes, bearing in mind how they were derived.

Table 3.20. Axis 1 Scores for selected case study areas

	primary sector GVA / AWU	Ave farm size, ESU	Innovation (PDO, Patents)	Employment primary sector dependence	Educational attainment, primary sector	Farm income
Sweden	D	C/D	D	D/E	X	C
England	X	C	X	n/a	B	C
Rheinland-Pfalz	C	D	D	D/E	D	C
Emilia-Romagna	D	C/D	D	n/a	B	C
Northern Ireland	X	D	X	X	A	X
Sachsen-Anhalt	C	E	B	D	E	A
Campania	C	B/C	B	n/a	A	B
Czech republic	B	C/B	B	C	X	C
Lithuania	A	A	A	B	X	A
Bulgaria	A	A	A	A/B	X	A

Table 3.21. Axis 2 scores for selected case study areas

	Natura 2000 area	Forest area	Low productivity agriculture	High stock density
Sweden	A	E	D	X
England	D	A	E	E
Rheinland-Pfalz	E	X	E	E
Emilia-Romagna	X	C	E	E
Northern Ireland	X	X	E	C
Sachsen-Anhalt	D	X	E	E
Campania	X	B	E	E
Czech republic	X	B	D	X
Lithuania	X	B	A	E
Bulgaria	X	B	D	X

Table 3.22. Axis 3/4 Scores for selected case study areas

	Farm pluriactivity	GDP/capita and recent trend (+/-)	% unem-ployed	lifelong learning: % workforce in training	Population trend	tourism (bedspaces per head)
Sweden	E	D/E+	C/D	E	C	C
England	C	n/a	N/a	E	n/a	n/a
Rheinland-Pfalz	C	B/C	X	X	C	D
Emilia-Romagna	A	n/a	N/a	A	n/a	n/a
Northern Ireland	C	B+	X	C	D	A
Sachsen-Anhalt	C	B	A	X	B	A/B
Campania	C	n/a	N/a	n/a	n/a	n/a
Czech republic	C	A+	D	A	C	B
Lithuania	A	A+	C	A	B/C	A
Bulgaria	C	A+	B/C	A	B	A

3.4.5 Conclusions, further developments and limitations

From the tables presented, it is apparent that for both axes 1 and 3-4, convergence areas generally tend to score higher (i.e. indicating greater levels of need) than non-convergence areas. However, the same is not obvious for axis 2 indicators, where variability is less clearly related to economic factors. However, among the indicators for axes 1 and 3-4 there are some interesting differences in patterns between the programme areas, and some of these can also be linked to RDP resource allocation decisions. In axis 1 indicators, some relatively wealthy areas (England and Northern Ireland) score high in respect of educational attainment needs in the primary sector. From the expenditure analysis in figures 3.10-11, it was apparent that these programmes were spending a relatively high proportion of their axis 1 resources on human capital. This tends to suggest that active targeting of needs is occurring, in these cases.

In developing this approach, the individual scores A to E for each characteristic could be combined to provide either a single score per theme under each main RD goal (eg human capital, within farming and forestry competitiveness), or even a single score per main goal (eg farming and forestry competitiveness). For this purpose, two options would seem potentially sensible. Firstly, scores of all relevant characteristics could be averaged to produce a single value for each goal or sub-goal. Alternatively, the modal score for characteristics related to one goal or sub-goal could be used. These approaches would result in slightly different final scores of need by sub-goal or overarching goal of RD policy. For example, if we examine physical capital need for the farm sector in Campania (Italy), then the 'needs score' for this if averaged would be between a B and a C (where A denotes greatest need), or a C, if the modal score is used.

However, in considering the wider use of these indicators to understand RD needs, some important points should be borne in mind.

- As can be seen readily from the results, the datasets are subject to gaps which limit their explanatory power as indicators of relative need. In most cases, these gaps are the result of incomplete reporting of standard statistical information to Eurostat in a given year, rather than a complete absence of this data. With time and further work, it should be possible to find ways to address many of these gaps (eg by varying the year of collation, for specific areas). However this goes significantly beyond what has proven possible within the resources available to this study. In prioritising the resources available, we judged that it was most important to use our approach to illustrate what can be done, in this regard, rather than spending considerable effort filling in all the gaps.

- The indicators have been identified as a set which together can give a fairly broad indication of likely needs for RD measures and/or funding. It would be misleading to use individual indicators out of context, because for some of these measures in particular, individual patterns do not match anticipated need. For instance, it is clear from our analysis that population change on its own is insufficient to measure quality of life: although generally areas with poor quality of life tend to exhibit population decline, some areas may have a growing population but declining standards of living. Also, low levels of farm incomes or productivity in an area may not be an indicator of low quality of life, if most farms have another gainful activity and unemployment levels are low, generally.

- In respect of environmental indicators, these present perhaps the weakest measures of relative need for RD resources because they are so few, and so general in nature, when

collated at the programme level. They also suffer from the problem that what looks like a lack of need in one context could equally be a relative need in another context – this applies to the percentage of forest cover and to the measures of livestock density. There are also significant gaps in respect of coverage and comparability, for good data on environmental characteristics such as water quality and scarcity, trends in key species, and habitat quality and extent. Good indicators of qualitative landscape change are also notably lacking.

In conclusion, this exercise has been useful in illustrating what is currently possible, in seeking to produce databases of indicators of RD need across the EU-27. However we urge caution in adopting any of these indicators out of context, and suggest that their main value should be to stimulate further work on this area of concern, and further discussion about how needs should be defined and compared between areas, at this point in time.

3.5 Programme level analysis of apparent divergence between needs and expenditures

3.5.1. Rationale and approach

This task made a qualitative analysis of apparent divergence of expenditure from needs, based upon detailed examination of ten contrasting programme areas. The focus of this task was three-fold:

- to generate a qualitative appreciation of 'needs' (here used to capture both needs and opportunities) for rural development funding, and examine to what extent the funding allocations in the RDP fully reflect, or diverge from, these needs;
- to seek to understand the reasons why funding allocations diverge from assessed needs;
- to draw conclusions and make suggestions about the scope for a more effective targeting of RD resources, based upon the analysis.

This task was undertaken for ten different programme areas, namely:
EU-15
UK: England and Northern Ireland (respectively, the. most wealthy region and a former Objective 1 region);
Italy: Campania and Emilia-Romagna (respectively. convergence and not);
Germany: Sachsen-Anhalt and Rheinland-Pfalz (respectively, convergence / not);
Sweden (non-convergence);
New MS
Bulgaria, Lithuania, Czech Republic (all convergence).

The selection of areas was intended to capture a wide variation in rural situations, and contrasting degrees of prior experience with EU rural policy. In undertaking this analysis based upon available data in August 2007, this of necessity meant that the analysis was provisional, because some of the RDPs selected were only available in draft form. Only the RDPs for the Czech republic, Lithuania, Campania and Rheinland-Pfalz had been agreed when the analysis was made; however, we have made checks on final RDP texts up to March 2008, and believe that the findings as regards priorities and rationales remain generally relevant, even though details of some RDPs have changed and overall funding has increased, for some of the areas examined.

Sources for the exercise included: draft or approved RDPs 2007-13; National Strategy Plans; *ex-ante* appraisals and Environmental Assessments where available; responses to consultations on the programme; Mid-Term Evaluations (RDPs 2000-06) and final evaluations (SAPARD 2000-04); and interviews with experts in government, NGOs and independent institutions. The basic approach to explaining divergence between needs and RDP expenditure priorities was to analyse the apparent underlying reasoning. The following criteria were used by the teams in gathering data for, and carrying out, this analysis.

Financial aspects
1. Does the RDP or NSP identify and address divergence between described needs and allocation of financial resources? How is this divergence explained?
2. Consider the influence of financial commitments from earlier programmes, and how allocation of resources is influenced by minimum spend per Axis.
3. Is significant non-CAP spend addressing identified needs?
4. Is the availability of EU or domestic resources affecting the allocation of funds to identified needs?

Programming aspects

5. Look for inconsistency in needs assessment, due e.g. to how needs were identified or assessed.
6. Check the perception of programme targeting strategies & inconsistency in priority setting, e.g. between (i) seeking a more equal distribution of competence or resources and (ii) focussing on the idea of building upon existing opportunities in particular areas.

Institutional aspects

7. Explore potential imbalance of institutional influence, in the negotiation of programme plans.

It should be noted that because this analysis is made largely at the level of individual programmes, its conclusions are mainly relevant to this level of decision-making.

3.5.2. Divergence between needs, measure choice and resource allocations

Among the ten areas, the extent of assessed divergence between broad needs and RDP targeting is variable. In only one case (Campania, a convergence region) is it concluded that there is no apparent divergence, while in all others some divergence is identified. This ranges from a concern that the under-use of one or two whole Axes, compared to others, is out of line with identified needs, to relatively minor concerns. A number of reasons for divergence between needs and planned funding were identified. The sections below present the main reasons, starting with the most common (i.e. those found in most areas) and moving to the particular (i.e. those specific to a few programmes), as follows.

a) The RDP is only a part of a much bigger picture of available resources for meeting key RD needs within a Programme area.
b) Programme expenditure is significantly affected by spending commitments from the previous period which may not coincide with the current needs assessed.
c) Programming authorities have decided that continuity and familiarity with measures is more important than targeting all current needs, exactly.
d) There is a lack of capacity in particular areas / among certain groups.
e) There are gaps in the RDP menu.
f) In some areas, a strong agricultural / agri-food industry influence over funding decisions, plus a policy attitude that CAP is basically about agriculture, have led to particularly low allocations to Axis 3 measures despite key needs in this area.
g) Tension exists between targeting and achieving a holistic delivery.
h) There are insufficient resources to address needs properly and therefore some key needs go short of funds.
i) Minor issues of various kinds.

In sub-sections below, each reason is explained, both in general and by the use of examples from different programme areas.

a) The RDP is only a part of a much bigger picture of available resources for meeting key RD needs within a Programme area. When these are taken into account, the RDP presents a more consistent relationship.

An examination of RDP allocations alone gives a misleading picture of how well the totality of public funds are targeting rural needs, since RDP funding needs to be seen in a wider context. This is most apparent as an explanation for divergence between needs and RDP allocations in Sweden and, to a lesser extent, in England, where the two RDPs describe needs covering economic, social and environmental goals but the Programmes place heavy emphasis upon the environment and Axis 2 spending, in particular. In both these programme

areas, RDP funds are smaller than the funding devoted to regional development from national and EU sources.

In Sweden, the Regional Growth Programmes (RGPs) include a significant level of funding for economic and social activities which can be pursued in rural as well as urban situations. As a result, the RDP tends to focus most strongly upon meeting environmental needs. The National Strategy for Regional Competitiveness, Entrepreneurship and Employment is the basis for the implementation of EU structural funds in Sweden, and aims at increasing harmonisation between regional development policy and EU cohesion policy. At the same time, it serves as guide for the RGPs and national public authorities. Regional development programmes are strategies for a county's future development. The national priorities identified for the period 2007-2013 are Innovation and renewal, Skills supply and increased labour supply, Accessibility and Strategic transboundary cooperation. However, neither the Swedish RDP nor the National Strategy indicate the financial contributions or detail the types of measures in the RGPs which might further rural development objectives.

RGPs are co-funded by the Swedish government, the commune, the county council, the EU, private partners and others, with expenditure of almost €2,900m (public €2,191m) in 2006 alone, much higher than the ERDF total public budget of €1,900m for the whole 2007-2013 period. RGP totals, as well as co-funding shares, vary significantly between Counties. In general, the state and private partners are the largest co-funders, with an average of 54% and 23% respectively.

In addition, there is a strong civil society movement in Sweden: about 100,000 people in rural areas are active in one of the 4,300 village action groups. The "All Sweden Shall Live" campaign was started in the late 1980s by the government together with NGOs, and the Rural Parliament is held every other year with representatives of village action groups, etc. Most initiatives in rural areas are created in response to some problem or need such as lack of childcare, school closure, or maintenance of local village road. No figures could be obtained on the financial contribution to rural development of these initiatives but they may help to explain Sweden's new focus on village renewal in its 2007-13 RDP (see page 33).

In England, the evidence to support a £3.9 billion RDP programme heavily concentrated upon Axis 2 is not explicitly linked to other funding sources. However, it is clear that the programming authority (Defra – the Department of Environment, Food and Rural Affairs) takes the view that economic and social needs in rural areas are more the proper focus of other policy activity, while environmental management of farmed and forested land is not.

Although the quality of life in many rural areas in England is generally high when compared with most urban areas (CA, 2004), a number of funding sources at the regional and local level are available to both urban and rural businesses and communities, including the primary sector. The economy in rural and urban areas operates in very similar ways, and therefore the Government does not have a large number of mechanisms designed explicitly for rural areas. Main funding sources are:

EU

- structural and cohesion funds (European Regional Development Fund (ERDF), and European Social Fund (ESF)), of approximately £1.36 billion per year;

UK

- Regional Development Agencies' 'single programme budget' funding (which in 2007/08 is expected to total some £2.36 billion per year);
- Selective Finance for Investment in England (SFIE) which provides support in identified regional aid areas;

- Learning and Skills Councils which have an annual budget of £10.4 billion for training and skills development;
- Local Government Revenue Support Grant, consisting of funding for services at a subregional level including social services, education, fire and police, environment, protection and cultural services; also Local Area Agreements.

(RDPE, paras 538-544)

The RDP for England (RDPE) refers to previous strategic documents highlighting that the providers of environmental and other public goods underpin sustainable development and quality of life. It stresses the need to address and support environmental needs, for healthy functioning of the environment to allow economies to grow, as well as noting that: 'many of the benefits which people derive from this, do not carry a price in the market which would enable them to be realised without some form of government intervention'. Hence the strategy focuses the maximum possible level of resources – 80% of the EAFRD budget – on Axis 2.

> 'This approach also reflects the fact that Rural Development funding is the only source of funding available for [agri-environment] schemes such as Environmental Stewardship, whereas other needs in rural areas can be met by other funds, including the EU Structural Funds.'
> 'As the evidence set out in Section 3.1 has demonstrated, the needs to be addressed in respect of the environment and the countryside are very significant, and far exceed the resources available to address them, apart from those provided from the rural development regulation. This is therefore the area where the maximum community value added can be obtained from the programme … EAFRD funding will be at the minimum level of 10% for Axis 1 and 3 respectively, which is consistent with the position that there are other programmes, which seek to meet the needs of these Axes, which are often better addressed through mainstream funding.' (Defra RDPE, 2007)

Despite these arguments, stakeholder responses to the RDP consultation (Defra, 2007) display some frustration about the RDPE focus on Axis 2, to the detriment of issues considered important under the other Axes. Some state that there is an undue emphasis on enhancing farm incomes rather than employment creation, and call for resources to be targeted towards non-agricultural aspects. In the words of one independent expert: 'Defra had an agenda which they were not really going to change. RDPE evidence was selected to try and justify decisions that had already been made. Defra's need was to try and find more money for environmental support, and the RDPE was a good way of doing this (expert interview, in confidence).'

The availability of large amounts of other, particularly EU, funding (ERDF and ESF) for development affecting rural areas is clear in most other cases in our study. This is unsurprising in view of the fact that regional development funding across the EU-27 has apparently devoted around €70 billion to specific assistance for rural areas (Piskorz, 2007), a figure which is just 20% lower than the total EU Pillar 2 budget for the period. In the case of convergence regions and new Member States, we found a consistent view that the social and economic needs of the rural areas are so great that both EU regional development funds *and* RDP funds need to target similar goals, albeit through complementary measures. Thus within the RDPs there is little apparent divergence between RD needs and spending priorities, and the relationship and demarcation with ERDF and ESF measures is acknowledged. However, it is sometimes difficult to see whether or how overlaps (or gaps) will be avoided.

b) Programme expenditure is significantly affected by spending commitments from the previous period, which may affect targeting of resources to current needs

This is apparent in respect of certain measures in several programmes, which can mean that spending appears to target needs that are currently less pressing. In Sachsen-Anhalt, a significant ongoing spending commitment to afforestation from the previous programme accounts for 82% of the spending allocated to this measure in the RDP, and the measure is not strongly identified in the current needs analysis. In the case of Sweden, 'ongoing contracts will be financed out of the EAFRD budget for the period of 2007-2013 using more than 50% of the total budget.' Although not seen as an obstacle to meeting needs in this case, this represents a considerable 'lack of room for manoeuvre' in respect of the design of the new programme. In the Czech republic, the financial commitments of the government from the previous programmes have priority in the individual Axes of the new RDP. This creates some problems, because participation in some previous programmes (e. g. marketing, early retirement) is much higher than was expected. In Rheinland-Pfalz, the RDP has about 20% less EU money than in the previous programming period, and in the first two years up to a quarter of the funds are taken up by previous commitments to agri-environment contracts.

c) The programming authorities have decided that continuity and familiarity with measures is more important than targeting currently identified needs

This is apparently the case in the Czech Republic, where our analysis identified divergence between needs and allocation in respect of more targeted agri-environment support, more accessible approaches to farm modernisation, and specific Axis 3 needs, among other things. It seems that the Agriculture Ministry (MoA) responsible for delivering the RDP did not accept specific Ministry of Environment requests for new measures and stronger local targeting under Axis 2 of the RDP. The MoA rationale relates to the short period of time during which the previous measures under this Axis were operating (2004-6, under IFDR), and the perceived need to keep the new system simple and comprehensible to farmers and local deliverers (in MoA offices). Likewise, the view appears to have been taken across the RDP that to make significant changes in measures or funding balances between the 2004-06 period and the start of the next period in 2007 would be premature, and could adversely affect successful delivery of the programme. While we have only examined the Czech Republic and Lithuania's RDPs in detail among the new MS, a brief examination of draft RDPs for Poland, Hungary, Slovakia and Slovenia suggests that they also have been influenced by this perspective.

Whilst it can be argued that this rationale should not endure beyond the next few years (for fear of the programme becoming completely out of touch with current needs), it is perhaps reasonable for quite new approaches, e.g. buying environmental services from farmers, to have at least 3 or 4 years to 'bed down', before review.

Whether similar arguments are equally relevant to other issues of apparent conservatism in respect of Axes 1 and 3 is less clear. One expert offered another way of looking at this phenomenon of 'sticking with the measures you know' more generally. 'If a Member State seeks to maximise Pillar 2 income, which many do, it may select measures which are relatively easy to implement, e.g. with fewer beneficiaries and/or lower administration costs. This could represent an optimisation for public finances, rather than an attempt to meet rural needs' (expert interview, in confidence). It was suggested that in Czech Republic, for example, the large proportion of the budget devoted to Less Favoured Area aid represented such an approach, at the expense of potentially much more useful but complex social and

economic measures (e.g. training, rural services, diversification and advice) under other Axes. Obviously, this is just an opinion, but the rationale appears plausible.

d) Lack of capacity to use funds in particular areas or among certain groups

Lack of capacity to use or distribute EU funds was identified as a reason for apparent divergence between needs and expenditures in respect of the Bulgarian programme, but it seems also to be an issue in respect of Lithuania and possibly also other convergence areas. While prior appraisals have suggested that local development initiatives such as LEADER could have important potential to improve rural livelihoods and quality of life, the draft Bulgaria RDP (as at March 2007) allocated relatively little (2.4% of public spend) to Axis 4. Our analysis suggests this was because there is a lack of capacity for the setting up and management of local groups, which may be related to education and infrastructure problems in rural areas. Thus it is likely that much rural development activity will be government agency-led.

To some extent, the same issue is mirrored in Lithuania, where the RDP explains that in a post-communist world, rural people tend to be rather suspicious of co-operative working, and thus it can be difficult to get these kinds of action off the ground. Nevertheless, in an attempt to overcome these problems, Lithuania is proposing to spend a much higher proportion of total RDP funds on Axis 4 than Bulgaria was in its draft RDP, more than the required minimum Axis spend.

In some territories, LEADER is apparently perceived as a demanding methodological approach which requires the pre-existence of accepted rural 'leaders' or innovators, as well as coherent social networks or networking. There are some places where LEADER has under-performed in the past, due to low social capital and apathy or even outright conflict among rural inhabitants (e.g. Shortall, 2004). In such cases policies can focus attention on approaches and measures which could help to build the capacity of rural actors to become involved in rural partnership working. An emphasis upon human capital under Measures 331 or 341 might be warranted: training people in communication skills and conflict resolution.

In the Czech Republic, this issue was raised in respect of farmers' access to funding for modernisation. Because there is a large group of big farms with managers, certain schemes were more accessible to them (due to the need for resources to cover project development costs and skills). The schemes did not favour such groups directly but they were not adjusted to make access easier for smaller farms, who do not have the capacity to undertake sophisticated project planning. This concern presents another aspect of the issue discussed under e) below, which appears to apply more widely in the new MS.

e) Possible gaps in the RDP menu are suggested as reasons why expenditure cannot fully target needs.

In Lithuania and Bulgaria, the problem of a lack of access to credit for very small farmers is seen as a significant barrier to widespread uptake of grants for farm modernisation, despite this being seen as the main priority for rural economic development. The suggestion is that, although the measure is allocated a large share of funding, uptake will be less widely spread than the apparent need across the rural areas, because of this issue. Regulation 1257/1999 enabled support for financial engineering to address this kind of issue, but the EAFRD no longer includes it.

It is possible that this situation will be at least partly eased as Pillar 1 direct payments are phased in over the programme period, and therefore farm asset values should increase,

making them a more viable prospect for lenders. Nevertheless, in those areas where most holdings remain extremely small, it appears that farm modernisation measures could prove to be rather 'exclusive'.

f) In some areas, a strong agricultural / agri-food industry influence over funding decisions, plus a policy attitude that CAP is basically about agriculture, have led to particularly low allocations to Axis 3 measures, even where the need for these measures has been indicated in SWOTs and stakeholder contributions.

Our evaluation of divergence suggests that, in general, the RDPs give insufficient attention or funding to Axis 3, by comparison with Axes 1 and/or 2. This point appears relevant to the Czech Republic, Bulgaria, Lithuania, England, Emilia-Romagna and Rheinland-Pfalz. The biggest difficulty in assessing the significance of this divergence, however, is the need to appreciate the relationship with wider rural development provision from other funding sources, as discussed earlier. The potential overlap of these funds is clearly greatest for Axis 3, but detailed analysis of all rural economic and social programmes would be a complex and resource-intensive task, which is beyond the scope of resources available to this study.

In Lithuania, the RDP states that, due to Pillar I measures, the income of farmers exceeds those of other rural inhabitants and even urban dwellers. This raises the question of whether there is actually a need for rural development measures that aim at improving farm income; yet Axis 1 takes over 40% of total planned spend. In the Czech republic, the SWOT analysis and stakeholders identified broader economic development as a key rural problem. Measures were designed but finally excluded from the RDP (partly due to lack of funds). It was commented that the Agricultural Union (big agricultural companies) and the Association of Marginal Areas (big businessmen that farm meadows and pastures in the LFAs) had major influence on the selection of measures and financial allocations in the RDP (expert interview, in confidence).

g) Tension between targeting and widespread, integrated local delivery

In the Strategic Guidelines for rural development 2007-13, the Commission suggests that it may be appropriate to consider delivering the goals of Axis 3 through the mechanism of Axis 4 – the LEADER approach. Some RDPs have taken this stance, including Northern Ireland, where the totality of Axis 3 funding is being delivered by the LEADER groups, of which there is one group for every sub-region. This has the effect of ensuring that the whole territory of the province receives some Axis 3 support, which is not wholly consistent with needs identified in the SWOT. Targeting within sub-regions is possible by the LAGs, but it is not described or required.

h) Insufficient resources to address needs properly

In a few RDPs, needs are identified and measures to address them are selected, but the scale of resources allocated to these measures is clearly insufficient to meet needs. There was evidence for this effect in both of the UK programmes examined.

i) Minor issues

Some specific, minor divergences between identified needs and planned expenditure allocations may have appeared necessary to programme authorities, in order to keep the Programme simple or narrowly focused on 'core areas'. In some other cases, respondents underlined barriers to the activation of some measures from 'rigidity of domestic rural development legislation' with regard to the environmental sector. Only in one case was it

claimed that the EU regulations precluded support for a recognised need. In Northern Ireland, there is apparently a need for support for small abattoirs that can 'deal with added-value [rare breed] produce (including organic meat) in a fully traceable process'. However, EAFRD specifically excludes aid for 'slaughtering facilities for pigs, cattle, sheep or poultry unless equivalent capacity is abandoned or a shortage of capacity in the sector is proven'. This issue relates to the overarching CAP regulatory framework, designed to ensure that pillar 2 measures do not distort the provisions of the CMO.

3.5.3 Commentary

The findings of the case studies tend to suggest that a number of issues identified in respect of targeting under the former programming period (e.g. Dwyer *et al.*, 2003) are repeated in the new period. Nevertheless, there is evidence to suggest that the scale of divergence between needs and resources may be less extreme than it was for 2000-06. Several factors underlie this observation, as follows.

Firstly, the requirement to meet minimum spending thresholds for each Axis appears to have ensured that all programming authorities spend some time and effort to decide how best to spend the necessary allocations across all four Axes, rather than becoming completely focused upon only one or two. Notwithstanding this, Axis 3 tends to have been relatively underplayed in a significant proportion of territories.

Also, the fact that the majority of Member States have prepared a previous RDP appears to have encouraged a more strategic and reflective process than the previous experience of programme planning. This has enabled more stakeholder influence and thus encouraged a more thorough treatment of problems and needs. However, the learning process may have been less developed in certain new MS because the view has been taken that the previous programming period was too short to enable significant development of measures and targets prior to the launch of the new programmes, 2007-13.

The considerable overlap in spheres of influence between RDP funding and ERDF/ESF funding for rural areas complicates any attempt to achieve a robust evaluation of the appropriateness of RDP targeting, in isolation from these other funds. In addition, drawing upon past experience from 2000-06, the fact that convergence and competitiveness OPs are not being planned and approved on the same timetable as RDPs means that gaps, duplications and inconsistencies between the two funding sources are likely to occur.

The need for Member States with a large proportion of small farms to address access to credit, particularly to enable farm modernisation and structural change among these small farmers, is not being met by RDPs. The modernisation measure has an upper limit to public funding, which means farmers must find matching funds themselves. There could be a variety of imaginative ways to address this gap, including venture capital vehicles, the establishment of mutual associations underwritten by the state and thus willing to lend to micro-businesses, collaboration between small farmers to raise funds, and diversification of income sources to provide the collateral to obtain loans. To some extent, these kinds of measure could be supported under Axis 3 of the EAFRD. However, it is possible that the removal of the 'financial engineering' measure from the Regulation could have been premature.

From our investigations, it is evident that a degree of institutional conservatism and dominance of programming by agrarian and agri-food interests may hamper a balanced and more targeted use of funds. Measures which give relatively large or regular funding to

farmers without too much targeting of specific disadvantage or need will clearly have attractions, and share characteristics of the Pillar 1 CAP regimes with which some authorities will be much more familiar. Interestingly, this now seems to potentially explain as large a focus in RDPs upon Axis 2 measures – LFA and agri-environment in particular – as upon Axis 1, which might be seen as the most clearly 'farm-focused' of the EAFRD Axes. Axis 2 also offers some potential benefits for programme administrators, in that funding can be almost automatic in years 2-5, once initial contracts are agreed in year 1, so that spending can be even over the period and out-turns can be almost guaranteed. However, the relative significance of these factors should not be allowed to obscure the undoubted scale of environmental needs faced in many of Europe's rural areas, as acknowledged in the EU Strategic Guidelines.

3.6 Conclusions – Targeting of RD resources

3.6.1 Clarification of the term 'targeting' and its use, in this study

As stated in its introduction, section 3 of the report concerns the assessment of scope for better targeting of RD resources. The study specification clearly uses the term 'targeting' to indicate the ways in which EU, national and regional authorities can attempt to maximise the value for public money of investment in RD actions – i.e. focusing funding on areas or issues where the need for RD resources is greatest, and thus by inference, giving less support to other areas or issues. This implies a conscious choice, which is then applied to funding or selection processes, including:

- deciding on the budgetary RD allocations for different MS, regions and sub-regions;
- deciding which measures should be available where (with what funding levels);
- deciding the criteria against which applications from beneficiaries will be encouraged, elicited and/or selected and approved.

In the analysis that we have undertaken for this section of the study, only in section 3.3 have we used a method which investigates explicit decisions of this kind through detailed analysis at the programme level. By contrast, the approach as required in sections 3.1 and 3.2 provide implicit examinations of targeting, because they seek to establish the degree to which RD resources have been allocated, or are planned for use, in accordance with what would appear to be objective indicators of need.

It should be borne in mind that the determination of these indicators of need has been pioneering and exploratory, since we believe that no established method for this task existed prior to this study, in respect of the full range of pillar 2 goals. Ideally, further refinement and peer review would be needed, before we could place significant weight upon the implications of the findings described here, in assessing the effectiveness of RD targeting at the European level.

Examination of spatial differentiation of spending on the various measures does not in itself enable the identification of reasons underlying the patterns observed. As we noted in the conclusions to section 3.2, expenditures (actual and planned) may vary for many reasons, of which explicit 'targeting' as defined above, is only one. Unrecognised barriers to access by beneficiaries, including both real and perceived costs, can significantly affect expenditure patterns, as can administrative decisions about how measures will be delivered (e.g. with or without flanking support from extension services, with strong promotion or without, with or without accompanying burdensome reporting and control requirements). Also, unknown (to

programming authorities) local contextual factors can play a role in influencing uptake patterns. And finally, expenditure itself does not automatically imply successful targeting, in that funding can easily be wasted if measures are inappropriately designed in respect of their specific goals, irrespective of where this occurs.

At the same time, "better targeting of resources" was approached in section 3.5 by assessing the divergence (differences) between the stated "needs" of RDP areas and the expenditures planned within the proposed RDPs. This approach also poses a number of challenges:

- Financial expenditure is only one way of pursuing policy goals or addressing needs; regulation and general education (or exhortation, persuasion) are others which may be used and which are not specifically considered in RD policy.
- Policy-related transaction costs are important elements of policy (and Programme) design and implementation. While analysis suggests that targeted interventions are generally more efficient, very high transaction costs, or very widely distributed market failures addressed by the Programme, may make a less targeted approach more attractive.

For all these reasons, the conclusions drawn from this section of the study must be cautious.

3.6.2. Conclusions on the scope for better targeting of RD policy

A comparison of indicators of need developed in section 3.4 with patterns of expenditure presented in section 3.2 enables brief analysis of the extent to which resources appear to have been targeted towards 'objective' measures of need, across the EU-27. This is complemented by the analysis in section 3.5 which attempts to understand how and why funding patterns occur, at the level of individual RDPs.

By and large, there are clear similarities between expenditure patterns (both actual 2000-06 and planned 2007-13) and patterns of indicators of need. Globally, more resources are devoted to convergence areas where socio-economic needs tend to be greater, for example. Within axes, it appears that some conscious targeting is evident for particular issues (for instance, the increased emphasis upon human capital and adding value within the RDPs of more developed rural economies, which appear to match patterns suggested in our characteristics analysis).

However, also at the global level, the strong emphasis of spending upon axis 2 within RDPs cannot be assessed adequately on the basis of the available evidence. Whilst it is possible to conclude, from the body of wider research, that environmental needs across the EU-27 are considerable, it is not possible to measure whether the relative priority given to them in Pillar 2 policies, by comparison with economic and social needs, is either sufficient or appropriate. We concluded from our work on indicators of need that there is no simple, objective way of determining how to apportion funds *between* economic, social and environmental goals at this scale of operation. Clearly it is desirable to maximise synergies between these goals wherever possible. In that respect, we should also note that axis 2 is not synonymous with the environmental component of RDPs because axis 1 and axis 3 measures can also be used to pursue environmental outcomes. Conversely, some of the analysis in section 3.3 indicates that axis 2 measures may not be applied exclusively for environmental ends. So, our ability to comment on this balance in respect of strategic goals, is compromised.

In respect of socio-economic needs, it appears from the combined results of sections 3.2 to 3.5 that when considered alone, RDPs probably target too significant a proportion of rural funding towards the agricultural sector and not enough to the wider rural economy and community. Nevertheless, this conclusion has to be seen in the context of wider policies,

where we have evidence particularly in non-convergence cases that pillar 2 is complemented by other policies targeting the wider rural economy and community (viz. Sweden and England, as discussed in section 3.5). We have not found similar evidence in respect of convergence regions, but this could be simply due to the limitations of study scoping (we were not tasked with examining the full range of funding devoted to RD needs, which would clearly be a major task at EU level). On the other hand, some of the evidence discussed in section 3.5 suggests potential reasons why convergence areas prioritise axis 1, which are not related to assessment of the relative needs of target groups.

Beyond these rather general points, we must also note that in respect of most specific groups of indicators and measures relating to a particular goal of RD (eg improving human capital, protecting HNV areas, etc), the expenditure analysis throws up apparent anomalies. In numerous cases, one or more programmes appear to devote either a particularly large or a particularly small share of resources towards some particular goals by comparison with the apparent relative need in that programme area. However, we cannot simply say that where these anomalies occur, this is evidence of poor targeting of resources to needs. As has been clearly demonstrated in section 3.5, programming authorities may have a variety of valid reasons for proposing expenditures that appear to diverge from an *a priori* 'objective' assessment of needs. At the same time, the discussion has also highlighted some apparent cases where the reasons for such divergence might not be so valid - from an EU-level perspective, at least.

What this analysis tells us, therefore, is that the general database-guided comparison of indicators of need with expenditure can only be a starting point for identifying opportunities for better targeting of resources at both EU and programme levels. More qualitative approaches to evaluating this point could usefully complement the indications derived from our work. Nevertheless, the data-based exercise is valuable in helping to identify the broad parameters around which such further investigations can take place. It could be a useful starting point for discussion among policy-makers, about how best future RD policy should seek to reflect the relative needs of each programme area, and how respective priorities should be determined.

Finally, we note the apparent significant variability of total available resources for RD between the different programming areas, which as the work in section 3.4 indicates, is difficult to justify purely in terms of relative needs and/or objective reasons for divergence between needs and spending (including absorption capacities). The historic weighting of EU-15 RDP allocations, as compared to the approach used to allocate resources to new MS, will certainly hamper a more effective targeting of needs across the EU-27. Further, in respect of the new MS where certain 'objective' measures have been used as the basis for RD budgetary allocations, the evidence from our analysis suggests that the approach may fail to capture some of the more pressing needs for RD resources, in some areas. Allocating resources on the basis of agricultural sector and very basic territorial characteristics, without explicit reference to needs and characteristics in the wider economy and natural environment, may overemphasise the relevance of the particular needs of the agricultural sector, as compared to overall rural development needs.

In conclusion, therefore, we can say that, despite clear signs of improvement on the situation in respect of 2000-06 programmes, there remains significant scope for more effective targeting of RD resources, both between and within Member States.

Section 4 Cost-effectiveness of RD interventions

4.1 Introduction and Context

In respect of the numbered sub-tasks in the original study specification, the logic for this task (number three) was cumulative. So

- Task 3.1, a computation of average costs per unit output, result, impact, in 2007-13 RDPs, was to be undertaken in order to provide the basis for considering the *likely cost-effectiveness of instruments in the new period*, by comparing cost per unit output/result/impact to what was achieved in the old period, and what has been achieved more widely, as established by the work in
- Task 3.2, which was termed a 'benchmarking' of these quantitative measures (cost per unit output/result/impact).

Together, these were to provide the material on which to base the assessment of cost-effectiveness of RD interventions, in task 3.3.

From April to June 2007 the study team made an assessment of the feasibility of benchmarking as described in sub-task 3.2. From this, we concluded that *a meaningful assessment of 2000-06 programmes and 2007-13 plans against quantified 'benchmarks' is not possible*. In summary, there are 3 main reasons.

1. The wide range of different contexts in which instruments have been and are planned to be applied, and thus the different purposes that they fulfil in these contexts (as demonstrated in the analysis of RDPs in section 3.5), means that any comparisons need to take account of this variation, somehow.
2. The paucity of extant data which links actual policy expenditures to clear and consistent outputs, results and impacts, in respect of even the most commonly-used instruments within the RD toolkit, across different countries and situations, is a major obstacle. A detailed and exhaustive search for evidence from past programme performance, as well as RDP evaluations and related academic studies, at both European and national / regional levels, has demonstrated this.
3. We question the validity of drawing conclusions in respect of likely cost-effectiveness of the new programmes, using figures for *planned* spend per *anticipated* unit of *common CMEF indicators* compiled from RDPs for 2007-13 (which are most likely to be restricted to costs per unit output, given that quantified CMEF result and impact targets are not widespread within the RDPs). From analytical work in preparing section 3.4-5, it is clear that the figures used for CMEF targets are *provisional,* and are based largely on programme authorities' experience from the past programme period. In addition, most targets are given at measure level, yet planned expenditures at measure level are only indicative, and actual spending could diverge significantly from these figures, over the lifetime of the programmes. Thirdly, for a large number of measures, outputs are an insufficient measure of effectiveness, in addressing RD goals (we discuss this point more fully, later in this report). In this sense therefore, anticipated cost per unit output does not provide a reliable or consistent measure of cost-effectiveness between programmes or instruments.

We therefore decided on an alternative approach which was designed to generate a more productive analytical perspective and some useful insights on cost-effectiveness, from a mix of quantitative and qualitative analysis based upon the following two steps.

Task 3.1 (revised) *Analysis of CAP-IDIM database figures to examine the range of values and variability in costs per unit output among measures funded mainly by the guarantee budget, 2000-06 and to consider possible reasons for these, based upon expert judgement and our work to date on the study.*

This enabled us to identify the extent to which the analysis of costs per unit output can produce interesting or meaningful results, in respect of cost-effectiveness. The CAP-IDIM analysis covers those measures which are most used, in each axis[30]. A brief comparison of 2000-06 values against target values in the 2007-13 programmes, for a selection of those RDPs that have compiled this information in a readily accessible format (namely, the Italian regions) has also been made. This enabled us to see if meaningful changes can be detected between actual results in the former programme period and anticipated results in the current period. This has allowed us to draw some conclusions about the value and the limitations of attempting to assess cost-effectiveness using quantitative measures such as these.

Task 3.2 (revised) *Evaluation of the cost-effectiveness of instruments based upon a synthesis of findings from existing, qualitative research, combining literature review and expert judgement, for a contrasting range of Member States (UK, Germany, Italy, Czech republic) and also in respect of the available pan-European and multi-MS research studies on RD interventions.*

Further reasons for this revised approach are as follows.

- Where data analysis is concerned, it is preferable to analyse data which relates to the *actual* performance of RDPs 2000-06, rather than that which is an estimate of *anticipated* performance 2007-13. There is every likelihood that the latter are likely to be simply an extrapolation of the former (tempered by adjustments designed to reflect changes to instrument design and delivery).

- The CAP-IDIM data is a relatively standardised dataset which covers the majority of EU expenditure in the 2000-06 period, and includes the main RD measures from that period (albeit in a reduced number of programmes, compared to the full extent of measure use within all funds). Thus it provides a degree of consistency for comparative purposes.

- The revised task 3.2, detailed examination of literature and expert opinion, provides qualitative evidence to increase the explanatory power of the analysis. This approach was endorsed by external experts at the first study workshop.

4.2 Comparative analysis of costs per unit output, 2000-06 data

4.2.1 Approach to the task

The aims of this exercise are given above. More specifically, we aimed:

- To assess the range of variation in recorded cost per unit output between RD measures 2000-06, to see which measures are most resource-intensive, in this respect, and which are less so, and to consider the possible reasons for differences;

[30] Axis 1 = farm investment/modernisation, training, processing and marketing aid; Axis 2 = agri-environment, afforestation, LFA; Axis 3 = article 33 measures combined

- To assess the variation in unit output costs between countries, where possible, to see how this compares with average values across all the data, for different measures, and to see if any consistent patterns of variation could be identified which might have plausible explanations;
- To consider intra-instrument cost variation and thus to be able to judge the degree of validity in making inter-instrument comparisons based upon average unit cost values.

Tables were compiled using all the available data from the CAP-IDIM database, to compute values for cost per unit output. CAP-IDIM contains data based upon records of expenditure reported annually by Member States, which was only required in respect of EAGGF-Guarantee expenditures. It thus covers largely those measures and countries using Guarantee or IFDR funding, over the 2000-5 period. Thus:

- a significant proportion of spending in EU-15 cohesion countries (ie most spending on non-accompanying measures) was not recorded on this database;
- for the new Member States that joined the EU in 2004, data covers mainly expenditure on accompanying measures, and only for two years.

Tables were compiled for all RD measures and all available Member States for which data was provided, across the full period of data collection and recording (2000-05). Because the number of countries providing this data for each measure was highly variable, and the costs were provided separately for each financial year, an initial check was made to see if there were any significant trends in costs over time, for any countries. The variation in costs between years showed no significant trends. Thus we decided that it would be advisable, given the relatively small sample sizes involved, to sum outputs and expenditures across all five years, for each measure in each country, and to use these sums as the basis for calculating unit output costs.

To calculate an average unit output cost value for each instrument, the total output recorded for all countries over all years was summed, and divided by the total expenditure to produce a simple arithmetic mean average for the unit output cost, for each measure. This exercise was performed separately for total public expenditure, and for EU funds, to generate two average figures for each measure of output. The range in values between countries and common output types was also noted.

4.2.2. Results

In comparing relative unit costs across measures and outputs, we decided to deal separately with those outputs which were expressed in terms of a monetary amount (ie those relating to the total value of investments made), which are qualitatively different from other kinds of output, in that they measure the degree of leverage of public funding, rather than a measure of physical output, *per se*. From the other output data, the measures with the three highest average unit cost outputs, based upon EU expenditure, were:

- Measure G (processing and marketing aid) – €135,647 per application approved;
- Measure H (Article 30 afforestation of non-agricultural land) – €92,414 per hectare supported;
- Measure H (Article 31 afforestation of agricultural land) – €76,494 per hectare supported.

These three measures are also among the highest unit costs in the database, when considering total public expenditure (€276,000 €211,000 and €125,000 respectively). The measures with the lowest-cost outputs, based upon EU expenditure are:

- Measure F (agri-environment schemes) - €52 per hectare;
- Measure D (early retirement aid) – €117 per hectare released;
- Measure E (less-favoured area aid) – €624 per hectare.

By contrast, the measures with the lowest cost outputs based upon total public expenditure are:

- Measure C (training) – €30 per training day[31]
- Measure F (agri-environment schemes) – €92 per hectare

The values expressed here seem surprisingly variable, which throws somewhat into question the reliability of the data in the CAP-IDIM records[32]. Some figures clearly exceed the thresholds allowed for in the annexes to the implementing Regulation, which should not be possible. Nevertheless, the broad trends appear intuitively sensible, in that we see how annual compensatory payments have tended to be relatively cheap, per hectare of land, whereas major investment actions (per project, for processing and marketing, and per hectare, for afforestation) are more costly. This may reflect the longer-term nature of the benefits that are funded via these payments. The figures may also indicate how investment in human capital tends to have a lower cost than investment in physical capital (although we have reservations about the accuracy and appropriateness of the training costs data – see notes to the tables).

Tables 4.1 and 4.2 overleaf consider each measure individually, and note which member state has the highest or lowest cost per unit output, for the figures expressed as EU cost and total public cost, respectively. This also highlights the range of variation observed between the highest and lowest unit costs, which is significant, for most measures and outputs. Colour has been used to highlight those countries that occur more than once in the list of those with lowest and highest unit costs.

From the tables it can be seen that there is a greater proportion of highest unit-cost outputs among New Member States (NMS) (15 of the 22 instances for EU spend, 15 of the 24 for total public spend, but note there was no measure B data for these MS). It might have been assumed that due to economic disparities, the costs of funding actions in these countries might be lower than those in the EU-15. Conversely, costs are generally higher – perhaps because of the institutional unfamiliarity of these countries with the RD programming approach, and the shorter time period over which the measures were applied and funded (2 years, as opposed to 6 years for EU-15), as well as higher co-financing. This indicates the likely importance of considering start-up data for new measures differently from data which is generated once programmes are well into the delivery phase.

[31] Note – there is no fexplicit igure for the unit costs of training in respect only of the EU funding element. CAP-IDIM contains a set of average cost figures per participant , which we assume is the total public funding cost

[32] For example, the cost for young farmers' support in Luxembourg, 2005, appears an order of magnitude (x1,000) too large, compared to all other years

Table 4.1 Summary of average cost per unit output (in '000 Euro) calculations from CAP-IDIM data, for EU expenditure for 2000-05

Measure	Output type	Highest value recorded by	Lowest value recorded by	Range (highest minus lowest)	Average value
A- Farm Investment	Applications approved	Lithuania	France	96.02	5.6
B – Young Farmers	Applications approved	Luxembourg	Sweden	1,075.87	13.5
C – Training*	Cost per training day	n/a	n/a	n/a	n/a
	Cost per participant	n/a	n/a	n/a	n/a
D – Early Retirement	Cost per agreement	Germany	Spain	10.95	1.7
	Cost per hectare released	Lithuania	Latvia	1.04	
E – Less Favoured Area aids	Cost per agreement	Slovakia	Netherlands	17.37	1.0
	Cost per hectare	Slovenia	United Kingdom	107.42	
F – Agri-Environment Schemes	Per contract (Organic)	Slovakia	Malta	37.81	
	Cost per hectare (Organic)	Lithuania	United Kingdom	0.57	
	Per contract (Non-Organic)	Slovakia	Malta	26.37	
	Cost per hectare (Non-Organic)	Malta	France	0.49	
	Per contract (TOTAL)	Slovakia	Austria	1.06	1.1
	Cost per hectare (TOTAL)	Lithuania	UK & France	0.56	
G – Processing & Marketing	Applications approved	Lithuania	Netherlands	558.17	135.7
H – Afforestation	Applications approved (Article 31)	Ireland	Austria	18.16	6.7
	Cost per hectare supported (Article 31)	Cyprus	Lithuania	20,340.91	
	Applications approved (Article 30)	Italy	Cyprus	7.70	3.4
	Cost per hectare supported (Article 30)	UK	Cyprus	1,367.45	
I – Other Forestry aid (Art 30)	Applications approved	Lithuania	Luxembourg	43.27	5.8
	Cost per hectare supported	Lithuania	Slovakia	142,946.35	
I – Other Forestry aid (Art 32)	Applications approved	Netherlands	Austria	219.41	0.8
	Cost per hectare supported	Netherlands	Austria	219.63	
J – Article 33 aids	Applications approved	Lithuania	Belgium	830.22	18.6

*training data in this source does not give an EU expenditure figure, only a total cost amount

The ranges, which indicate the extent of variation between countries, are dramatic with measures H and I showing the largest variations in absolute cost, per hectare of land. Processing and marketing has a very broad range in unit costs in both tables, and Measure B (Young Farmers) has a broad range in respect of EU expenditure, in particular. By contrast, agri-environment schemes had the lowest extent of variation in unit costs between countries, particularly with regard to cost per hectare of land in the schemes. Again, these patterns would appear rational, bearing in mind the very different characteristics of the kinds of measure and output being considered.

Table 4.2 Summary of average cost per unit output ('000 Euro) calculations from CAP-IDIM, for total public expenditure

Measure	Output	Highest	Lowest	Range	Average
A- Farm Investment	Applications approved	Slovakia	France	176.30	28.8
B – Young Farmers	Applications approved	Luxembourg	Austria	35.04	35.0
C – Training	Cost per participant	United Kingdom	Spain	5.11	209*
	Cost per training day	Sweden	Spain	0.30	0.03
D – Early Retirement	Cost per agreement	Germany	Poland	14.31	4.7
	Cost per hectare released	Lithuania	Latvia	1.30	0.3
E – Less Favoured Areas	Cost per agreement	Slovakia	Belgium	21.66	2.0
	Cost per hectare	Belgium	Poland	212.33	1.3
F – Agri-Environment Schemes	Per contract (Organic)	Slovakia	Malta	45.05	4.7
	Cost per hectare (Organic)	Czech Republic	Lithuania	0.70	0.18
	Per contract (Non-Organic)	Slovakia	Malta	31.16	1.7
	Cost per hectare (Non-Organic)	Poland	Estonia	0.96	0.08
	Per contract (TOTAL)	Slovakia	Malta	34.07	1.9
	Cost per hectare (TOTAL)	Lithuania	Estonia	0.70	0.09
G – Processing & Marketing	Applications approved	Lithuania	Netherlands	740.15	275.8
H – Afforestation of farmland	Applications approved (Article 31)	Netherlands	Austria	32.27	10.9
	Cost per hectare supported (Article 31)	Cyprus	Lithuania	40,684.53	125.0
	Applications approved (Article 30)	Italy	Germany	13.75	7.7
	Cost per hectare supported (Article 30)	Cyprus	Spain	9,420.39	211.1
I – other Forestry (Art 30)	Applications approved	Lithuania	Luxembourg	58.35	14.6
	Cost per hectare supported	Lithuania	Slovakia	194,750.70	64.4
I – other Forestry (Art 32)	Applications approved	Netherlands	Austria	438.82	1.6
	Cost per hectare supported	Netherlands	Austria	439.45	21.3
J – Article 33 a	Applications approved	Lithuania	Belgium	645.86	52.8

*the CAP-IDIM tables provide average training costs per participant, upon which this average is based. The units given in the tables are '000 Euro, which seems surprisingly high, if this is correct.

4.2.2.1. Applications, Agreements and Contracts

Several of the measures have common output measures in respect of the number of applications approved, agreements, or contracts signed, which facilitates comparison across the measures. The values, for average unit costs, are summarised below.

Farm investment (measure A) Average unit cost per approved application within the measure is €28,800 and €5,600 for total public and EU expenditure respectively. *Support for young farmers (measure B*) Average unit cost per approved application within the measure is €35,000 and €13,500 for total public and EU expenditure respectively – slightly higher figures than those for farm investments. However this measure has, by a considerable margin, some

of the largest individual cost per output values and consequently the largest absolute range in value between countries, particularly affected by unusually high figures for Luxembourg.

Early retirement (measure D) Average unit cost per agreement within the measure is €4,713 and €1,696 for total public and EU expenditure respectively. It is interesting to note how much lower these figures are, by comparison to investment and young farmers' aid.

Less favoured areas (measure E) Average unit cost per agreement within the measure is €2,000 and €1,000 for total public and EU expenditure respectively. The measure as a whole has consistently low values between different countries. At face value therefore, this measure would appear to be the least costly per agreement.

Agri-environment (measure F) The average cost per agreement for Organic contracts is almost three times the cost of the non-organic contract outputs when considering both total public and EU expenditures. However, a much smaller proportion of total contracts was for organic farming, which may affect the robustness of these figures. Average unit cost per agreement within the measure as a whole is €1,900 and €1,100 for total public and EU expenditure respectively.

Processing and marketing aid (measure G) The average cost per agreement within the measure is €275,800 and €135,670 for total public and EU expenditure respectively. Disregarding the one very high unit cost for measure B (discussed above), this measure has, consistently the highest unit costs per agreement among individual countries. However it also has the second highest range of all outputs (measure B with the extreme value has the highest). Thus at face value, this measure would appear to be the most costly per agreement.

Afforestation aids (Measures H and I) For Article 31 (farmland afforestation) the average cost per agreement is €10,900 and €6,700 for total public and EU expenditure respectively. This output has the lowest absolute average cost per agreement for total public expenditure and the second lowest for EU expenditure. For Article 30 (afforestation of other land) the average costs are €7,700 and €3,400 for total public and EU expenditure respectively. This measure has the absolute lowest average cost per agreement for EU expenditure.

Other forestry (measure I) The average cost per agreement for article 30 is €14,600 and €5,800 for total public and EU expenditure respectively. For article 32, the average cost per agreement is €1,600 and €800 for total public and EU expenditure respectively. These values are the absolute lowest output costings for all measures. There are however some very high unit costs for article 32 in a few countries, which inflate the average considerably. Overall the measure has the lowest average cost per agreement but there are notable exceptions.

Article 33 aid (measure J) Average cost per contract is €52,800 and €18,600 for total public and EU expenditure respectively. This measure also has one high extreme value – in the total public expenditure category. But it should be noted that the data for this measure is extremely thin, based upon only 4 entries in 2004 and 15 in 2005, which reduces the weight that we can attach to these calculations.

Table 4.3 highlights the highest and lowest cost outputs of this nature between the various measures, and differentiates between total public and EU expenditure values. Here, colour has been used to highlight the largest and smallest figures in each column. Perhaps the most notable finding from this table is that the range of variation in unit costs between countries is usually considerably larger than the calculated average unit cost figure for all countries

combined, in respect of a number of measures. In all cases the number of individual data entries will be less than 25 (the total number of countries covered), for each measure. This means that the extent to which we can make meaningful comparisons of unit costs between measures based upon average cost calculations combining data from all countries, is negligible, and thus suggests that such comparisons should only be made for individual countries. It is thus important to treat the comments in the preceding paragraphs with extreme caution.

4.2.2.2. Costs per hectare of land under agreement

Several of the measures have outputs in hectares under agreement, which could be compared directly as they are of a similar nature. Table 4.3 highlights the highest and lowest costing outputs for hectares under agreement within the various measures, for both total public and EU expenditure, respectively. Here again, the variation in values between countries indicates that comparisons between average figures cannot be regarded as statistically valid. Nevertheless, in the case of agri-environment spending, there is greater consistency between countries and the figures indicate that this measure has relatively low costs per hectare, in most cases, whereas unit cost figures for LFA and afforestation include greater variation between countries.

4.2.2.3. Ratio of private costs borne by beneficiaries/total eligible cost, per unit of public funding – leverage

Table 4.5 presents the range of average values for financial leverage calculations, as well as the highest and lowest values and the range of variation within the various measures, differentiated between total public and EU expenditure.

Examining the pattern of variation between countries (table 4.6), half the countries with the lowest apparent leverage on total public funds are new MS. Italy however, also features twice. Netherlands and Austria show the highest apparent leverage values. In measures A and J, the costs borne by beneficiaries are frequently lower than the total public costs, with numerous ratios less than 1.

Table 4.7 shows that all of the countries with the lowest figures are new MS, which seems reasonable. Given that new MS would generally have higher cofinancing rates for measures, one would expect that their EU leverage ratios would be lower than for EU-15 countries, all else being equal. There is one case where the total beneficiary costs are lower than the EU costs (ratio less than 1), for measure J.

4.2.2.4. Limitations of the Data

The principal limitation regarding these figures and values is probably irregularity in the nature and amount of data provided by each member state as they implemented the various measures, over the period. During the period 2000-2005 new countriesacceded to the EU and took up these measures at differing times. In 2000 there were only twelve countries that could potentially provide data, presumably because 3 countries did not have their RDPs approved in time to make a return in 2000. From 2001 to 2003 there were 15 potential countries and in 2004 and 2005 there were (*with one exception – see measure I 2005*) twenty-five.

Table 4.5 range of values for leverage calculations

Measure	Output	Average Value		Highest		Lowest		Range	
		Total	EAGGF	total	EAGGF	Total	EAGGF	total	EAGGF
A- Farm Investment	Costs Borne by Beneficiaries	1.54	7.81	9.43	27.78	0.55	1.31	8.88	26.47
	Eligible Costs	1.90	9.71	5.68	18.18	0.92	2.88	4.76	15.30
G – Processing & Marketing	Costs Borne by Beneficiaries	3.24	6.58	11.36	27.03	1.32	1.79	10.04	25.24
	Eligible Costs	4.13	8.40	7.46	22.22	2.32	3.14	5.14	19.08
J – Article 33	Costs Borne by Beneficiaries	0.54	1.55	2.54	5.08	0.05	1.11	2.49	3.97
	Eligible Costs	1.41	4.02	3.33	8.85	1.03	1.88	2.30	6.97

Table 4.6 Total public funding leverage ratios

Measure	Output	Lowest	Highest	Range
A- Farm Investment	Costs Borne by Beneficiaries	Italy	Netherlands	8.88
	Eligible Costs	Italy	Austria	4.76
G – Processing & Marketing	Costs Borne by Beneficiaries	Lithuania	Netherlands	10.04
	Eligible Costs	Lithuania	Austria	5.14
J – Article 33 aids	Costs Borne by Beneficiaries	Cyprus	Austria	2.49
	Eligible Costs	Netherlands	Slovakia	2.30

Table 4.7 EU funding leverage ratios

Measure	Output	Lowest	Highest	Range
A- Farm Investment	Costs Borne by Beneficiaries	Cyprus	Netherlands	26.47
	Eligible Costs	Lithuania	Belgium	15.30
G – Processing & Marketing	Costs Borne by Beneficiaries	Lithuania	Netherlands	25.24
	Eligible Costs	Lithuania	Sweden	19.08
J – Article 33	Costs Borne by Beneficiaries	Cyprus	Austria	3.97
	Eligible Costs	Lithuania	Luxembourg	6.97

As mentioned earlier, not all countries engaged in the various measures concurrently, therefore values and figures cannot easily be compared, year on year, as initial teething problems may distort values in the initial year of measure implementation, in each case. Table 4.8 summarises the various output measures, the potential number of countries that could have provided data, and the actual number that provide data, in each year. This underlines the importance of extreme caution in drawing any robust conclusions from the analysis presented here.

Table 4.3 Unit cost ('000 Euro) of contracts/agreements/applications approved, by measure, for total public spend and EAGGF spend

Measure	Output	Average Value		Highest value/country		Lowest value/country		Range highest to lowest	
		TOTAL	EAGGF	TOTAL	EAGGF	TOTAL	EAGGF	TOTAL	EAGGF
A- Farm Investment	Applications approved	28.79	5.65	180.93	98.02	4.65	2.00	176.30	96.02
B – Young Farmers	Applications approved	35.04	13.50	4,918.84	1,080.02	7.26	4.16	4,911.58	1,075.87
D – Early Retirement	Cost per agreement	4.71	1.70	14.70	11.02	0.38	0.07	14.69	10.95
E – Less Favoured Areas	Cost per agreement	1.98	0.97	22.04	17.54	0.39	0.17	21.66	17.37
F – Agri-Environment Schemes	Per contract (Organic)	4.69	2.63	45.55	38.31	0.50	0.50	45.05	37.31
	Per contract (Non-Organic)	1.67	0.95	32.00	26.81	0.84	0.44	31.16	26.36
	Per contract (TOTAL)	1.87	1.06	34.91	29.27	0.84	0.48	34.07	28.79
G – Processing & Marketing	Applications approved	275.85	135.65	779.29	574.73	39.15	16.55	740.15	558.17
H – Afforestation	Applications approved (Article 31)	10.92	6.69	32.53	18.30	0.26	0.14	32.27	18.16
	Applications approved (Article 30)	7.67	3.36	16.49	7.71	2.74	0.06	13.751	7.70
I – Forestry (Art 30)	Applications approved	14.59	5.79	59.27	43.50	0.92	0.23	58.35	43.27
I – Forestry (Art 32)	Applications approved	1.62	0.79	440.00	220.00	1.18	0.59	438.82	219.41
J – Article 33	Applications approved	52.84	18.58	1,170.52	220.00	4.14	0.28	1,170.52	219.63

Table 4.4 Cost ('000 Euro) per hectare under agreement, by measure, for total public spend and EAGGF spend

Measure	Output	Average Value		Highest		Lowest		Range	
		TOTAL	EAGGF	TOTAL	EAGGF	TOTAL	EAGGF	TOTAL	EAGGF
D – Early Retirement	Cost per hectare released	0.29	0.12	1.30	1.04	0.00	0.00	1.30	1.04
E – LFA	Cost per hectare	1.27	0.62	212.50	107.52	0.17	0.10	212.33	107.42
F – Agri-Environment Schemes	Per hectare (Organic)	0.18	0.1	0.75	0.60	0.04	0.03	0.70	0.57
	Per hectare (Non-Organic)	0.08	0.05	1.00	0.51	0.04	0.02	0.96	0.49
	Per hectare (TOTAL)	0.09	0.05	0.75	0.60	0.04	0.02	0.70	0.56
H – Afforestation	Hectares supported (Art 31)	124.96	76.49	2.03	20,342.54	40,686.57	1.63	40,684.53	20,340.91
	Hectares supported (Art 30)	211.14	92.41	173.86	1,371.87	9,594.26	4.42	9,420.39	1,367.45
I – other Forestry	Hectares supported (art 30)	64.44	25.55	194,750.86	142,946.43	0.15	0.08	194,750.70	142,946.43
I – other Forestry	Hectares supported (art 32)	21.26	10.31	440.00	220.00	0.55	0.28	439.45	219.63

Table 4.8 data entries in CAP-IDIM, EAGGF Guarantee spend outputs, 2000-05

	2000		2001		2002		2003		2004		2005	
Measure	Potential	Valid values	Potential	Valid values	Potential	Valid values	Potential	Valid values	Potential	Valid values	Potential	Valid values
A	EU12	4	EU15	10	EU15	10	EU15	11	EU25	10	EU25	13
B	EU12	5	EU15	9	EU15	10	EU15	10	EU25	10	EU25	11
C	EU12	5	EU15	12	EU15	12	EU15	12	EU25	12	EU25	14
D	EU12	1	EU15	7	EU15	7	EU15	7	EU25	6	EU25	12
E	EU12	7	EU15	14	EU15	14	EU15	15	EU25	22	EU25	25
F (Crops)	EU12	10	EU15	15	EU15	15	EU15	15	EU25	21	EU25	24
F (Breeds)	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	EU25	16	EU25	18
G	EU12	3	EU15	11	EU15	10	EU15	10	EU25	11	EU25	14
H	EU12	7	EU15	10	EU15	12	EU15	12	EU25	15	EU25	18
I (Art 30)	EU12	5	EU15	10	EU15	10	EU15	12	EU25	10	EU24	14
I (Art 32)	EU12	1	EU15	4	EU15	4	EU15	5	EU25	4	EU24	5
J	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	EU25	4	EU25	15

4.3 Consideration of value of unit cost comparisons between programming periods – review for southern EU-15 Member States

As part of its early work on benchmarking, the study made a comparative analysis of cost per unit output based upon CAP-IDIM data, unique EAGGF Guidance data and targets compiled for southern EU-15 countries. We reproduce it in Annex 3 in order to show the potential, and the limitations, of such an analysis.

As can be seen from this work, whilst it is possible to undertake a number of different analyses of the statistics gathered, it is extremely difficult to make any useful interpretation of the results of such analyses without also gathering a much larger quantity of supporting, qualitative information on the nature of the outputs concerned, in each case, and the delivery approaches used. Without this information, we cannot give reasons for the variations observed. Nevertheless, it would of course be possible to use analyses of this kind within much broader qualitative evaluations of RDP contents and achievements, in future, now that the basic data has been assembled.

4.4 Conclusions

This analysis has illustrated above all, the difficulty of attempting to make useful judgements using simple quantitative measures of performance, in respect of RD measures applied in the EU under the second pillar. The range of possible variation in the purpose, precise design and targeting of measures at programme level means that broad-scale comparisons are fraught with difficulties of interpretation and potential spurious comparability. Nevertheless, a few conclusions regarding the nature of measures in the RD toolkit can be tentatively drawn from this work. By and large, these conclusions support an intuitive reasoning about how measures might be expected to behave, in respect of costs per unit output. They are as follows.

- The unit cost of agreements involving investment aids tend to be higher than the unit cost of agreements involving annual compensatory or land management payments. Also, the cost per beneficiary of delivering training aid is lower than the cost of delivering aids in the form of physical capital.
- Among unit costs per agreement, farm investments may have slightly lower costs than aid to support young farmers, but both probably have lower unit costs than aid for processing and marketing.
- Among unit costs per hectare of land in agreement, afforestation programmes have much higher per hectare costs than agri-environment or Less Favoured Area aids, reflecting the quite different investment nature of these payments. Agri-environment aids have the most consistent costs per hectare, from among those compared.
- There appear to be significant problems in attempting to use the CAP-IDIM data to examine leverage ratios for public funds, in respect of investment measures.

4.5 Analysis of cost-effectiveness of RD policy in the literature

4.5.1. Our approach to the task

The Tender Specifications for the project request an examination of cost effectiveness and suggest that cost-effectiveness relates to the cost of achieving related outputs, results and impacts. Thus it combines a consideration of efficiency with effectiveness. Taking the Commission's guide for evaluating EU activities as a starting point[33], we can characterise these terms in the following ways.

1. Effectiveness is defined as: 'the extent to which objectives set are achieved.' This implies that there is a spectrum of effectiveness, with the most effective instruments achieving the set objectives. 'Effectiveness means attaining the specific objectives set and achieving the intended results'[34]. Thus if the objectives are only partially met or the results not quite as intended, the measure is not fully effective.

The main challenge in measuring effectiveness is assessing whether and to what degree the objectives have actually been achieved, and whether this can be attributed to the measure in question. The Commission's evaluation guidance also makes a clear distinction in respect of policy achievements, between the immediate *outputs* of a policy intervention (ie what it funds or delivers directly with that funding – projects funded, hectares of land under agreement, persons trained), and its *results or impacts*, which are generally closer to the desired end-points of policy intervention. It is often much easier to identify and to measure the outputs of a policy than it is to even identify its results or impacts, still less to be able to measure these in some robust or quantified way.

2. Efficiency is: 'the extent to which the desired effects are achieved at a reasonable cost.' The use of the word 'extent' implies there is a spectrum of efficiency, but the most efficient measures will achieve…. 'the best relationship between resources employed and results achieved'[35] (i.e. minimal outlay for maximum impact)..

Thus whilst effectiveness allows a cost-free assessment to be made, efficiency requires the analysis of costs. The main difficulty with assessing efficiency is quantifying the cost and determining whether that cost is reasonable. Thus there is a need to have recourse to comparators - being able to identify alternative measures that could meet the same objectives, and assessing whether their costs of doing so could be lower than those for the measure under scrutiny. There is also an absolute (as opposed to relative) element in the concept of efficiency, in that it would be unreasonable for the cost of measures to exceed the value of the benefits that they deliver to society. Again, because this judgement requires a valuation of the benefits of the measure, it can be difficult to assess precisely.

In the context of Rural Development policy, a broad definition is needed which inevitably involves assessing benefits, such as increase in quality of life or enhancement of the environment, which can be very difficult to measure. In addition, costs are clearly relevant, including both:

[33] DG Budget (2004) Evaluating EU Activities: A Practical Guide for the Commission Services.

[34] As set out by the Financial Regulation (article 27(2)), and referenced by DG Budget (2004).

[35] As set out by the Financial Regulation (article 27(2)), and referenced by DG Budget (2004).

- The *relative expense* of the measure itself – does it achieve a lot or a little, for each Euro of expenditure, compared to what other existing instruments deliver or potential new instruments could deliver?
- The *administrative cost* of implementing the measure – is it relatively cheap to administer, in respect of staff time, additional resources and monitoring and enforcement needs, by comparison with other existing or potential instruments?

This section of the report synthesizes the results of a literature review conducted in parallel by each partner in the study, focusing upon literature relevant to their own country's experience with RD policy, as well as similar measures funded under other programmes and initiatives, within the past 10-15 years.

The questions that the analysis was seeking to address are set out below.

1. How is cost-effectiveness approached, in existing studies? How does it relate to the separate concepts of efficiency (ie minimal overheads for maximum spend, speed of spend, relative costs of measures) and effectiveness (ie ultimate impact of the measure – degree to which it meets its goals)?

2. Which of the current EAFRD instruments[36] and/or goals has been included in any studies which comment on the balance of costs and benefits achieved, and what has been concluded or suggested about these instruments, in this respect?

3. What costs are considered in these studies (i.e. is it just the actual cost per unit output of the measure itself; or also the cost of administering it – personnel, promotional materials, IT costs; also the costs of control and enforcement), and does the research focus on the outputs, results or impacts of policy actions?

4. What underlying factors have been suggested to affect cost-effectiveness, in existing research studies? Are these factors concerning the policy *design choices* (instrument type, delivery approach), or concerning the *context* in which they perform (receptive target groups, capacity of beneficiaries to act, other market or policy incentives/disincentives to achieve instruments' goals). Relevant concepts are likely to include deadweight, displacement, additionality, transparency, accessibility and the relative ease of monitoring, control and enforcement.

To ensure that the exercise drew on the combined expertise of the full research team, the common protocol for this task included more detailed notes about the likely issues and problems to be encountered in respect of measures under each axis. These notes were prepared by the 'lead axis' partner in the study team for their respective axis, based upon prior knowledge of the literature. The precise geographical scope of the review was as follows:

- IfLS looked at literature written in Germany, also Austria and Switzerland
- CCRI examined literature in the UK
- INEA analysed literature from Italy
- VUZE covered Czech and Slovak studies, as well as some other new MS literature

[36] Including when these instruments operated under different funds, in previous programming periods

- IEEP covered EU-level evaluation literature, particularly pertaining to measures under axis 2 (since these have been the RD measures most studied, at this level).

To supplement the literature review, each team also held a small number of meetings and bilateral discussions with experts involved in evaluation studies, and with selected policy officials, to help validate the emerging view from the literature, and to source any further studies that might be relevant.

This generated a wide variety of information to examine in very different RD contexts, and thus was designed to capture issues, in respect of cost-effectiveness that might be more broadly relevant among the EU-27.

The fact that most evaluations involve looking back at performance over a preceding period, and that the ex-post evaluations of 2000-06 programmes are not yet available, means that most findings are based on evaluations of measures and programmes up to around 2003, rather than more recently. In many MS (old and new) there have been considerable changes to RD policies since then, which will inevitably have changed the cost-effectiveness of rural development funding. It should also be noted that whilst there are fairly thorough evaluations of the programmes in receipt of EU funding, some other relevant programmes and schemes are either not so thoroughly evaluated, or the relevant documents are not fully in the public domain.

4.5.2. Findings

4.5.2.1. What studies were examined, what range of RD measures covered?

Each team examined between 10 and 40 separate studies, which could be broadly clustered into four groups:

- Relatively short-term (3-5 years) evaluations of single measures
- More extended evaluations of measures that have developed over longer time periods (eg agri-environment schemes, farm investments – some of these span more than 10 years)
- formal evaluations of programmes to fulfil EU requirements (mainly *ex-ante* and mid-term), which often bring together a mix of primary (short-term) and secondary (longer term) evaluation evidence in respect of their constituent measures, and
- policy studies starting from the point of a particular policy objective, and examining the relative merits of different measures or approaches that might be used to address this goal (e.g. biodiversity conservation, diffuse water pollution).

Among the countries surveyed, the new Member States generally have the least evaluation information available for RD measures and programmes. For those countries joining the EU in 2004, the typical situation is that the formal evaluation literature (including mid-term and ex-post evaluation studies of programmes) is largely absent. Only mid-term evaluations of SAPARD programmes (which only contained a proportion of RD measures), and ex-ante assessments for the two RDPs (2004-6 and 2007-13) can be considered, in this category. However, academic research literature on rural and regional development and some national, regional or multi-country evaluation studies were identified and used for this exercise.

In the EU-15 countries surveyed, studies included MTEs of RDPs 2000-06, ex-post or ad-hoc evaluations of Objective 1, 5b and accompanying measures from the 1990s, as well as a range

of nationally or regionally-commissioned independent evaluations of particular measures over the period 1995-2005, and a number of relevant academic papers. The sample included evaluations commissioned by government departments, specialist agencies (including auditors) and NGOs, and covered all of the four categories listed in the bullet points above. As might be expected, there are more studies evaluating long-established RD measures (notably farm investment, processing and marketing aids, agri-environment, afforestation and LFA aids), than more recently-derived ones such as village renewal and support for Natura 2000 sites. Nevertheless, in a few countries, evaluations of national or regional schemes and initiatives with similar aims and methods to EAFRD measures (eg village design and parish plans in England), offer some insight into issues that may influence the cost-effectiveness of these measures.

At the pan-EU level, 19 studies were used in this analysis, including the meta-evaluation of the 2000-06 RDR measures funded under guarantee and guidance budgets of the EAGGF. However it should be noted that the coverage of measures and axes was highly uneven among the other inter-country studies, with a marked emphasis upon axis 2 measures and particularly agri-environment schemes, while only one or two studies examined axis 1 or 3 instruments. LEADER has its own set of pan-EU evaluation literature which was also covered.

4.5.2.2. How do they approach cost-effectiveness?

Generally speaking, formal evaluations seek to evaluate and analyse the effectiveness of specific measures or groups of measures on the basis of indicators such as output, result and sometimes impact indicators. However, many of these studies also make more qualitative assessments of performance using a mix of expert judgement and stakeholder opinion. Additionality is usually assessed very briefly and almost always in qualitative terms. As required by the EU regulations, *ex-ante* evaluations make a judgement of policy and measure appropriateness, in respect of anticipated targets. To do this, they commonly refer to other sources of evaluative information and thus their own value for this exercise is rather limited. Longer-term or policy-objective oriented studies tend to examine a wider range of qualitative factors in policy performance, including how measures have evolved over time and how they have been received by beneficiary groups. It is mainly in the longer-term studies of particular measures that more detailed analyses of effectiveness are possible; additionality may be examined in more depth, and the degree of (most often) deadweight and (less commonly) displacement may be explored, through a variety of methods.

In many of the formal evaluations, measure costs are interpreted primarily as the value of transfer payments to beneficiaries, while other costs arising from the programmes may be mentioned but not quantified. UK studies provide an exception to this rule, in that several of these explicitly examine the costs of delivery (usually termed the 'administrative/admin overhead') and quantify this as a percentage of the measure cost, or total cost (measure cost plus admin overhead). However the methods used to derive measures of administrative costs are rarely fully transparent, in these studies, and may not be consistent between them. Some extended evaluations in several countries include a more detailed analysis of costs which examine both transfer payments and transaction costs, while some studies in Germany focus particularly on transaction costs, and others take econometric approaches which include only measure costs.

The policy-oriented comparative studies perhaps come closest to attempting to measure 'cost-effectiveness', in that they analyse alternative measures or approaches against a range of

criteria which commonly include likely impacts and/or additionality, as well as measure costs, administrative overheads, feasibility, political acceptability, transparency, ease of monitoring and enforcement, etc. However, because many of these studies use qualitative approaches to make comparisons, based upon expert judgement, case-study evidence and/or stakeholder opinion, their conclusions may only be valid in the specific context within which these comparisons have been framed.

4.5.2.3. What do they suggest about cost-effectiveness of RD policies and measures?

At the level of the formal MTE evaluation of RDPs, RD programmes are commonly found to be achieving a reasonable degree of effectiveness, in respect of the measures deployed and their individual outputs and results, as far as these can be discerned. However, the short-term nature of the judgements involved in many of these evaluations undoubtedly compromises the depth of their analysis and thus the accuracy or robustness of their judgements (this point is acknowledged by the evaluators).

By contrast, in the longer-term studies and the pan-EU literature, effectiveness appears variable, for many of the measures examined. Whilst many positive results or outcomes are cited, there are also many examples of scope for improved targeting, of measures suggested to involve significant deadweight, and of situations or approaches involving over and under compensation, as well as indications of significant displacement in respect of some measures. Further common criticisms include poor transparency or significant barriers to access, among target groups (e.g. over-complex or costly application procedures which discourage precisely those beneficiaries for whom the measures are most needed). This suggests that many RD measures could be more effective, and indeed most studies make direct practical recommendations for addressing weaknesses, in this respect.

It is important to note that many studies also conclude that the available information is not adequate to enable a proper assessment of achievements. Problems include no (or incomplete) baseline data, uncertainty about the counterfactual, insufficient time to really see the ultimate impact of some measures that may take several years to deliver against goals, and inappropriate or insufficient indicators for capturing programme results and impacts in a balanced way.

Considering cost-effectiveness, in most cases it is very difficult to assess the balance of costs versus benefits for measures, because benefits are complex and not delivered instantaneously, and because costs vary as external circumstances change. Thus in most of the cases where it is attempted, the assessment of cost-effectiveness addresses comparative efficiency – ie trying to identify whether an alternative approach could have delivered equal or enhanced benefits, for lower costs. The German studies, in particular, take the most quantitative approach to this question, with several reports attempting to compare the cost-effectiveness of different measures (notably, agri-environment and land consolidation programmes) as implemented in different case-study areas.

Bearing these points in mind, it is possible to summarise the key issues that appear relevant to specific RD axes and measures, in analysing cost-effectiveness.

Axis 1

Studies in the EU-15 countries surveyed (UK, Germany, Italy), as well as pan-EU evaluations, provide evidence to demonstrate that farm investment aids, support for processing and marketing, and training aids, have delivered results in line with their objectives, in many cases.

Investment aids enable farmers to restructure and develop their holdings, which can lead to efficiency and productivity gains, mainly for labour and land productivity. Thus their results include increased output per hectare and per worker, and increased business turnover. The intermediate evaluations of RDP in Italian regions and of Regional Operational Programmes in Portugal has shown that investment aids on average did play a role in improving the competitiveness of farms by increasing added value and factor productivity in supported holdings. The extent of this contribution is however very uneven among regions, depending on factors such as regional policy choices, farm structural characteristics and typology of investment. In Italy some evaluation studies for the 1994-99 programming period have shown that public support to farm investments has had a significant effect on labour productivity and farm incomes (*Mantino, 2006*), this emerged from a comparison between supported farms with business plans, and not-supported farms making their own investments. These findings are confirmed by other studies (*Agra CEAS Consulting*, 2003 and 2005).

However, a variety of studies *(ADAS, 2003, ADAS and Reading, 2003 Ilbery et al (in press), CRER (2002), Hill (2007), Forstner et al, 2005, Dirksmeyer et al, 2006*) has sought to assess the degree to which these changes might have occurred irrespective of public support. Their conclusions suggest that these measures have, in the past, involved a significant degree of deadweight, as well as some displacement. In some UK and pan-EU studies (*Ilbery et al, in press, Dwyer et al, 2004, AgraCEAS, 2005*) it is concluded that the application and assessment procedures for awarding the aid tend to favour those who would also be most likely to succeed in raising funding for investment from private sector sources. Complex or competitive procedures can discourage applications from beneficiaries who do not have these advantages, and assessments which evaluate the likelihood of projects achieving predetermined targets or outcomes can discriminate against those which involve a greater degree of risk or innovative action. Thus most studies recommend improved targeting of such measures towards the situations where additionality is likely to be greatest.

Nevertheless, it should be noted that these evaluations largely deal with situations where private lending markets are relatively well-developed, and thus farmers have a variety of options when seeking investment support. This situation may not apply in some of the new Member States and thus it might be anticipated that deadweight might be less apparent in these countries and contexts. From the Czech case it is confirmed that these kinds of support are generally more accessible to larger farms (smaller farmers found the application procedures complex and likely to be costly, which was a significant deterrent to applying for aid). However, there is insufficient evaluation evidence to conclude from this that it negatively affects the cost-effectiveness of the measures. It has also been suggested in some reports (e.g. *OECD, 2006*) that by generally favouring larger holdings over smaller ones, investment aid accelerates the exit of labour from smaller farms and thus can put pressure on other sectors of the economy or the welfare system, for example if there is insufficient alternative employment available. This infers that in situations with a high potential for agricultural restructuring, these kinds of aid should be deployed in a balanced way alongside measures that can effectively provide opportunities for those exiting the sector.

In evaluations of processing and marketing aid, some similar findings are apparent. A UK study (*ADAS and University of Reading, 2003*), which reviewed the operation of these kinds of scheme over more than 20 years, suggested that where they have tended to favour larger processing businesses, their additionality has been particularly low. However, the choice to favour these businesses has been made on the grounds of lower risks for the public, as the investor. The recommendation of the study was that in order to increase additionality, the schemes needed to target much smaller and more risky (ie innovative or unconventional) kinds of project.

Displacement has been cited as a problem in respect of processing and marketing aids, in a number of studies in Germany and UK. The rationale appears to be that because these aids generally have involved quite large capital sums being made available to only a proportion of those operating in a given market, any business success that results from such investment can too easily come simply at the expense of other similar businesses who are not in receipt of this aid. It has proven difficult, in several evaluation studies, to identify any net increase in the size of the overall market in which the aided businesses operate, as a result of the funding received. As in the case of farm investment evaluations, the studies therefore tend to recommend better targeting of aid towards market innovators, because it is argued that they have greater likelihood of developing new markets and thus less of a tendency to simply displace other operators.

In respect of training aids, a variety of studies report relatively good performance in supporting the delivery of training (for instance in Italy intermediate evaluations reveal that on average, 88% of participants successfully ended training activities), and high levels of participant satisfaction, as well as some evidence that the training is likely to lead to increases in business turnover or the operational efficiency of the business (eg *Ilbery et al, in press, Hill, 2007, Dwyer et al,2004, AgraCEAS, 2003*). In some cases where the measure was unsuccessful, the main causes were identified as insufficient information and/or low quality of the initiatives (e.g. Toscana, Italy-*INEA, 2005*). However, it is often difficult to capture the results and impacts of training actions because of the indirect link between being trained and then applying the knowledge gained to real effect, within the business. UK studies have found that the effectiveness of training is also related to wider conditions of education, in that better-educated trainees tend to make fuller use of the training in which they then participate. Education serves as a kind of capacity-building exercise, to prepare people to gain the most from vocational training (*Hill, 2007*).

Considering the issue of cost-effectiveness, it is apparent that in general, the cost per beneficiary of farm investment and processing and marketing aid is generally much higher than the cost per beneficiary of training and advice. In addition, the administrative costs of running training activities should be generally lower than those for capital grant schemes because there is less need to scrutinise the situation of each individual beneficiary, prior to awarding grants. Thus for a given budget, the policy reach of the latter (i.e. the number of persons or extent of territory benefiting from a given level of spending) should be much greater than the former instruments. Nevertheless, perhaps because of the difficulty in measuring the concrete results or impacts of training, as opposed to the other two kinds of aid, commentators (*eg Tangermann, 2003, Garforth et al, 2003, Dwyer et al, 2004, Dwyer and Findeis, 2008*) note a tendency for policies to emphasise investment over training, in their expenditure priorities.

From our analysis of delivery systems reported in section 5 of this report (Calabria, Cumbria), we have gathered evidence suggesting that there may be important benefits in terms of cost-effectiveness if these three kinds of RD aid are delivered in an explicitly co-ordinated way. This

can be either through focused packages targeting specific areas or 'filieres' in agriculture or forestry, or through close partnership working at the local level to join up delivery processes and effectively offer a 'development package' to potential beneficiaries. While these approaches will probably involve a greater degree of administrative cost in planning and delivering aids than more single-measure and open application processes, they offer potential for targeting aid more clearly at situations which offer greater additionality. This is because of the scope for identifying and maximising synergies between the different potential of these instruments, and because the process of planning such integrated delivery generally requires prior consideration of how best to achieve additionality and promote innovation.

Another main area in axis 1 aids which has been subject to some investigation and evaluation in recent years is mechanisms for effective inter-generational exchange and holding restructuring, which include support for early retirement and support for the installation of young farmers, as well as the land consolidation measure. Some quite critical evaluation studies *(Shucksmith et al, 2005, Mazorra, 2000, European Court of Auditors, 2006*) have suggested that early retirement aid suffers from issues of significant deadweight and inappropriate design. Mazorra concludes that the measure is inappropriately targeted as a result of the EU-level eligibility criteria applied to it, such that its effectiveness is compromised because it cannot adapt to the local situations in which it is made available. In respect of support for young farmers, also, it can be difficult to clarify where there is additionality from the aid. AgraCEAS (2005) comment that in most of the situations where it is used, farm structural change is occurring both with and without aid, and rates of transfer are clearly affected by many factors other than the availability of such aid. Interviews with officials and experts about these measures indicate that in some cases, there is a sense that their goals are not fully compatible with the overall axis 1 goal of improving competitiveness in that there is also a strong quality of life driver here. Early retirement aids offer the 'ability for farmers to retire with dignity' on a scheme-supported income which is often higher than that which they were generating on their holdings. Young farmer support is given in order to attempt to retain people in farming, where the most 'efficient' outcome of farm structural change might actually be a reduction in the number of people working in the sector. These schemes have been taken up by an increased number of Member States in the new programming period, reflecting their apparent social and political importance to new Member States who are currently experiencing very rapid structural change in agriculture. But one interviewee noted that the attractions of the young farmer measure could be as much to do with the relatively wide range of potential eligible actions, and the flexibility in respect of how aid is given, by comparison with other axis 1 aids, as with evidence of a real need to retain young people in the sector.

Land consolidation is one of the most analysed measures in Germany. In the previous funding period, €514 million were spent on this measure. Five studies conducted between 2003 and 2006 included two which made a detailed analysis of administration costs as well as measure effectiveness, and concluded that business reparcelling projects are the only options that provide a good cost-effectiveness ratio (Mosiek, 2006). The analysis of *Seibert* (2006) on effectiveness of state-supported land reparcelling based upon nine projects, summarises farm holding effects as monetary income effects (saving effects per area unit, income effects) and calculates saving effects between 37 and 142 €/ha. The employment effect, in the form of reduced average labour units, ranged from 0.02 to 0.13 labour units per year. On a very few holdings the labour units increased. The results were differentiated by farm size, main occupation or part-time farming, type of reparcelling project, first or second reparcelling and farm location. He compares his results with other studies of efficiency conducted between 1989 and 2006 in Germany, which are all based on a number of case studies with different scope. Results

show a potential for the measure to reduce workload per year between 0.2 and 6 manpower hours/ha and reduced costs of 9.9 to 78 €/ha, and positive income effects between 43 and 304 €/ha. This kind of quantitative study finding adds weight to our conclusion from the data analysis (reported under 4.4) that these quantified approaches cannot on their own provide robust assessments of cost-effectiveness per measure, due to extreme variability in performance according to local context.

There is relatively little evaluation evidence to enable an assessment of the cost-effectiveness of the other measures in axis 1 in a direct way, from the countries covered by this analysis. However, there is some evidence from evaluation of similar approaches funded under Structural and cohesion policies, in Italy, that schemes which target group actions in pursuit of enhanced competitiveness (e.g. producer groups, co-operation and co-ordinated marketing and promotion) can be highly effective.

Axis 2

More literature is available on the effectiveness and comparative efficiency of the agri-environment measure (AEM) than for any other measures examined. Most of the large number of individual academic studies are analysed within the pan-EU evaluations, particularly the *Oreade-Breche* (2006) evaluation carried out for the European Commission. A large number of reports examine positive impacts of the measures upon soil, water, biodiversity and landscape, while some studies question the suitability of targeting and the potential for over and under compensation to occur. A number of studies in Germany attempt to measure cost-effectiveness indices for different elements within the same schemes, and for similar elements within different schemes in different regions.

Assessments of the effectiveness of this measure are hampered by the lack of quantitative data, as reported in several reports and highlighted by the *European Commission (2005),* which concluded that 'monitoring or other data sets do not provide a sufficient basis for a comprehensive account of the impact of agri-environment measures'. The Commission also stresses that very few studies have evaluated the environmental impacts of the AEM. The *Court of Auditors* (2005) has highlighted the difficulties faced across the EU in verifying whether agri-environment agreements are complied with or not. The difficulty of doing so is explained in relation to the disproportionate cost of collecting evidence and the associated technical demands.

EPEC (2002), Oreade Breche (2006) and *Primdahl et al (2003)* describe the benefits the agri-environment measure has provided for soil, water and landscape. These studies are slightly less clear about the benefits provided for biodiversity, although *Kleijn et al (2006)* highlight some positive results. *EPEC* write that soil quality had improved due to the AEM, although in many cases data was insufficient and no quantitative assessment had been performed. *Oreade Breche* recorded both positive effects for soil quality and erosion. *Agra CEAS (2005)* are less certain, simply noting that appropriate measures had been put in place where soil erosion is considered to be a problem.

With respect to water quality, evaluators from both *EPEC* and *Oreade Breche,* claim that water quality has improved (or was likely to have been improved, in the case of EPEC) due to the AEM through a reduction in agricultural inputs, arable reversion to grassland and organic agriculture. *Agra CEAS* state that in some regions/MS measures to address water pollution have been put in

place where they are most needed. *Primdahl et al* conclude that measures aimed at reducing the use of nitrogen fertiliser were most widespread, resulting in 'improvement effects'.

Oreade Breche also note that the AEM provided a 'favourable effect' on landscape due to the creation or preservation of ecological infrastructures, for example. Again *Agra CEAS* are less conclusive, stating that the contribution of AEM to landscape is hard to assess and is largely subjective.

Evidence on the biodiversity impacts of AEM tends to be scarcer with different evaluators highlighting the lack of evidence. *EPEC* note positive effects were likely due to the uptake of measures targeting reduced chemical use and the extensification of agricultural practices. The authors of this report also note a positive impact on biodiversity through the conservation of high natural value farmland habitats. *Agra CEAS* are inconclusive about the impacts on biodiversity, largely due to the absence of data. *Kleijn et al* however assert that in the countries they examined 'agri-environment schemes had marginal to positive effects on biodiversity'.

Despite the general positive view of many of the evaluators, *Polman and Slangen* (2007) concluded a 6FP investigation into the AEM by stating that the 'environmental effectiveness, economic efficiency, coherence and transparency of the overall system are questionable.' They call for clearer environmental objectives to be set.

The setting of appropriate payment rates, and the avoidance of over and undercompensation, were issues raised by several authors that could effect the cost-effectiveness of the AEM. *Núñez Ferrer and Kaditi* (2008) refer to the Austrian ÖPUL scheme and state that the scheme generally finances 'existing farming practices', implying a potential lack of additionality (but this depends on whether the practices would have occurred, irrespective of the aid given). *EPEC* reported the likelihood that both overcompensation and undercompensation had occurred across the EU 'because payments are calculated as averages', meaning that 'the scope for under or over-compensation … is likely to increase, the wider the area over which equal payments are set.' *Oreade Breche* also state that the payments received by beneficiaries do not necessarily correspond to the 'real costs and losses', implying that the level of compensation may not reflect the actual costs incurred. *Núñez Ferrer and Kaditi* go so far as to claim 'farmers can *de facto* be compensated for costs they never incurred, losses they never had and paid an incentive they never required.'

In a review of the German studies looking at cost-effectiveness in German policy delivery, *Mann* (2003) summarises that most AEM show a net benefit, especially animal welfare measures. However, he states that no conclusion on the macro-economic effectiveness of the schemes can be drawn on the basis of cost estimations, because additional information regarding the benefits of measures are needed.

The suitability of targeting of the AEM was analysed by a number of the examined reports. *EPEC* refer to an example from Finland whereby 'specific, targeted agri-environment measures were more effective than basic agri-environment measures, which were considered to have little impact.' According to their evaluation, EPEC also note that most of the successful examples recorded in MTEs were related to the maintenance of existing practices, with rather less requiring 'major changes' such as habitat creation. EPEC therefore state that there is a case for more AES to be more targeted at environmental priorities. *Oreade Breche* note that the most intensive farms are often not captured by the AEM. In terms of the penetration of the measure

across the EU, Shucksmith et al (2005) state that 'the richer EU Member States tend to prioritise agri-environmental objectives more than poorer regions.'

There are some examples of deadweight. *Núñez Ferrer and Kaditi* note that the Austrian OPUL scheme is likely to have resulted in deadweight costs. *EPEC* provide one example of deadweight in France. In this case many of the beneficiaries in receipt of a payment to reduce water pollution would have implemented the necessary changes in any case, partly due to a change in the regulatory framework. In this respect, the *European Commission* (2005) notes that 'Agri-environmental measures are not meant to solve pollution problems that are normally subject to mandatory standards'.

In a paper on the performance and efficiency of AEM in Germany, *Salhofer* (2002) concludes that the effectiveness of constant direct payments depends on how much of the welfare benefits of the internalisation of externalities benefits the farmers, as opposed to wider society. His analysis concludes that variable direct payments (basic amount per ha plus progressive amount increased with costs of provision) in agri-environment programmes could be efficient and feasible. Although the individual farmer's transaction costs for participation in agri-environment programmes are not known, he comments that in his research study, participation in agri-environment programmes increases with the increased political power of farmers. He predicts there will be more agri-environment programmes in those countries and regions where costs for provision are relatively low and marginal benefits of provision are high (e.g. agricultural management to maintain the landscape for tourism). Lastly, he argues that due to co-financing rules, agri-environment programmes will be implemented in countries and regions which tend towards high levels of public expenditure and are relatively low contributors to the EU budget.

In the UK, debate on the cost-effectiveness of AEM has included a focus on the basis of payment, including whether and to what extent this should be focused more upon paying for the environmental benefits achieved, rather than the management practices followed *(Dwyer and Kambites, 2006*). On a related theme, there is a widespread view among UK stakeholder organisations that the requirement in the regulation to pay compensation in respect of income forgone and costs incurred is an inappropriate way to approach an effective application of this measure.

> *In [a] recent Defra consultation exercise (Defra, 2002d), a majority of respondents (generally stakeholders in the rural economy) felt that there was a problem with the current approach to determining payment levels. The calculation of income forgone, during periodic payment reviews in a period of generally falling agricultural incomes, could aggravate income loss. Some kind of payment floor was needed. Many respondents also suggested that "income forgone" sent out the wrong messages and that a more positive approach was required. Even if there was no resulting change in payment rate, it has been suggested that a new language was needed to reinforce the message that environmental management of land was an important activity in its own right, not a substitute for something else. (ADAS and SQW, 2003, p.12)*

It has been suggested that payments should be for environmental outcomes rather than based on costs of implementation, as this would allow farmers scope to innovate in how those outcomes were achieved. However, there are a number of problems with this approach. Firstly, environmental outcomes are difficult to value; and secondly, they can be very long-term, which implies that payments might either have to be made on the basis of anticipated achievements or

might have to be delayed for a long time. The *Centre for Rural Research and CJC Consulting* conclude: *'While there are attractions in principle to payments based on outputs rather than inputs there are inevitable complications in practice. However there may well be potential advantages to be gained from a move in this direction in specific contexts. ' Dwyer and Kambites* (2006) note that within one AEM scheme in England, all agreements were reviewed and new 'statements of objectives' devised in each case, to help farmers and delivery agents to focus more clearly upon the desired outcomes of the scheme. We are also aware that in the Netherlands there has been positive early experience with payment schemes based upon results (Melman, 1995), but that this related to a quite specific case with simple and relatively secure outcomes.

The *European Commission* suggests in its 2005 report (albeit not explicitly) that the cost effectiveness of the AEM could be improved. The Commission states that new approaches could be explored in order to achieve 'better value for money' and identified a need to more clearly define the environmental objectives of agri-environmental programmes. Many of the issues affecting cost-effectiveness in the reports examined here were first highlighted by a Commission Working Document on the application of Regulation 2078/92 in 1998. This report notes the lack of impact on intensive farming areas, the difficulty of monitoring impacts on biodiversity, the need to obtain good baseline data in order to be able to monitor improvements and the importance of supporting low intensity systems as opposed to particular results.

The evaluation studies and reports examined judge the LFA measure to have provided some benefit in the form of continued agricultural land use in marginal areas. All the evaluations agree however, that the measure has been poorly targeted at need, payment levels are characterised by both under and over compensation, and in some cases deadweight is noticeable. However, there is an evident lack of confidence in many of the conclusions, with most authors referring to the difficulties of undertaking a quantitative analysis. Many of the findings are therefore based on logical deduction, through for example, an assessment of the appropriateness of eligibility criteria and LFA criteria with respect to addressing environmental and land use needs.

EPEC found that in most cases the LFA measure compensated for a large proportion of 'lost income or costs incurred' resulting from the level of handicap. In most cases, the measure supported continued agricultural land use and through the maintenance of sustainable farming practices, also 'had a positive effect on the protection of the environment.' However, whilst farming activity had been maintained, there was no evidence to show whether this has helped to maintain the viability of the rural community as a whole. The *Court of Auditors (2003)* state that 'beneficiaries believe that aid for LFAs has enabled them to continue farming in an area which they might otherwise have had to leave but, in the absence of an overall evaluation, no definite conclusion can be drawn'. The evaluation by *IEEP (2007)* states that the LFA measure is one of a number of policies that has contributed to relatively little farmland in the LFA being ceased to be managed by agriculture (although the authors noted data limitations in confirming this, and *Agra CEAS, 2005,* state that causality for this relationship is not clear). *IEEP* recognises that the measure has been most effective in maintaining land use and rather less so in securing the most appropriate forms of management. *Núñez Ferrer and Kaditi* draw on evidence from IEEP and ESPON (2004) to state that LFA payments help to retain low income sheep and cattle production in marginal farming areas. *Shucksmith et al* also state that the overlap between LFA and high nature value farming systems is 'quite marked', indicating the value of the measure to biodiversity and landscape conservation.

Notwithstanding the positive contribution of the LFA measure to continued agricultural land management, all of the evaluation studies consulted raise questions about the efficiency of the measure. The *Court of Auditors* stated in 2003, for example, that the measure should be reviewed 'for it to be a more effective, efficient and economic contribution to rural development'. There are issues surrounding the targeting of the measure, deadweight and the over and under compensation of beneficiaries. As can be seen in our case study of LFA in Spain for section 5.4 of this study, these factors may combine in some cases to such a degree that it calls into question the basic rationale for the measure, as applied in that situation.

IEEP stresses that the present combination of classification criteria, eligibility rules and payment structures at Member State level does not result in resources being targeted sufficiently 'sharply' on areas where public goods are most apparent and the hazard of land abandonment is greatest. The authors note that expenditure is skewed towards a limited number of Member States and it is difficult to reconcile payment rates to the severity of handicap at a European level. *Núñez Ferrer (2005)* states that eligibility criteria are 'likely weak' and the wide geographical coverage of LFA indicates 'a lack of targeting'.

AGRA CEAS (2005) note that there are wide disparities in the degree of compensation provided stating that it is highly likely 'from a logical point of view' that under of over payments occur as does the extent to which the severity of handicap impacts on costs. *Núñez Ferrer and Kaditi* continue in this vein acknowledging a 'high risk' of overcompensation to farmers by stating that average size of farms benefiting from LFA payments in non-mountainous areas is larger than the average. The Court of Auditors states that 'overcompensation may occur'. In all these cases certainty is lacking. *EPEC* refers to the example of Spain, where the LFA measure has resulted in under-compensation in low income areas and overcompensation in better-off areas. *IEEP* states that compensation levels in the EU-15 are below what might be expected given the handicaps farmers face. *IEEP* concludes that payment levels need to be revised 'to better reflect the handicaps to be compensated for' and that the eligibility criteria need to more precisely recognise environmental priorities and 'region-specific land management requirements'.

Núñez Ferrer is the only author to claim LFA support suffered from 'high deadweight cost'. He argues, for example, that there is no strong rationale for public support in mountain areas in wealthy tourist centres where farmers may have high levels of off-farm income. *Shucksmith et al* state that LFA support is only weakly related to indicators of social and economic cohesion, meaning that the highest level of support is amassed in the richer regions of the EU. These problems could be addressed through improved targeting, as suggested by IEEP and others.

Reiter and *Roggendorf (2002),* in a comparative analysis based on Germany, conclude that AEM, LFA and article 33 measures for protection of the environment have the highest potential among pillar 2 measures to target nature conservation concerns. The paper identifies administrative costs being relatively high for agri-environment measures of two kinds: (1) very detailed agri-environment measures and (2) small measures applied in small areas. The first measure type supposedly has precise targeting and little deadweight. The high administration costs for the second type of measure are caused by relatively high fixed costs which are attributed to small plots. The authors also note that information costs at farm holding level are often omitted in quantitative analyses of uptake, due to methodological difficulties, but that these can have important implications for measure effectiveness, and efficiency in targeting.

Evaluations suggest that the aid for afforestation of farmland has had a mixed impact. Effectiveness is noticeable at different levels: in terms of the immediate goals the effect is most evident (i.e. new plantings are observable) but effects in meeting environmental goals are more limited (this will also be partly due to the short timescales of evaluations relative to the process of afforestation). *AGRA-CEAS (2005)* refer to CAP-IDIM data to state that the woodland area has increased as a result of the measure. *EPEC* note that in many cases the afforestation measure had a 'limited impact' on the decision of farmers to convert their land, although in two cases the measure had a 'significant impact' (in Ireland and Denmark). In a large number of cases, evaluation authors concluded that the measure had contributed positively to carbon storage, whilst those in Austria and Portugal reported a much more limited contribution. *Agra CEAS* also report a positive impact on biodiversity as well as on-farm employment.

Several reports are more critical of the benefits provided by the measure. The authors of the *Europe's Living Countryside Project* (WWF/LUPG, 2005) refer to an example from Extremadura, Spain, where the objectives for farmland afforestation are 'extremely vague' and have failed to deliver environment benefits. The *Court of Auditors (*2004) call for the measure to be better targeted and to account for environmental benefits. The Court views the measure to afforest agricultural land as 'very expensive' and states that 'the results have not been very significant and could have been obtained more cheaply'. This overview suggests that the measure had some effect in realising goals but cost-effectiveness could be improved.

Axis 3

As previously mentioned, very few studies in the RD literature specifically examine the cost-effectiveness of the measures in axis 3. Therefore it has been necessary for us to seek alternative sources of evaluative information from other national and EU-funded programmes and schemes.

Núñez Ferrer seems unfairly critical of the village renewal and development measure stating that restoring rural towns and their historic value 'can only have a positive impact in zones of exceptional tourist value.' For Axis 3 measures implemented in the framework of an integrated package for a rural territory, a sensible assessment of cost effectiveness can only be made in respect of the impact of the whole set of measures. Smaller renewal interventions are demonstrated to have positive impacts if accompanied by investments in e.g. agri-tourism, crafts, quality products (*Agriconsulting, 2005*). Similarly, improved added value and employment due to investments in micro-business had positive spill-overs for the whole production system within the rural area. This highlights how a systemic approach to implementation is a key factor in determining effectiveness.

Very positive impacts have been demostrated in Italy by a study on integrated territorial 'pacts' (*Magnatti et al*., 2005). From a comparison among three types of pact (industrial, agro-tourism, mixed) it emerged that the greatest employment changes occurred in the agrotourist pacts, where interesting synergies can be found between the two sectors (agriculture and tourism). This latter type of pact also produced a greater leverage effect on private investment, due to strong links with the private sector within each territory.

The mid-term evaluation of EAGFF-Guidance highlights that in Germany's Objective 1 regions the investments supporting village renewal resulted in improvements in living conditions and welfare. This was in terms of rural populations' identification with their villages, the maintenance

or improvement of the structural characteristics of the rural economy, and positive impacts on employment (*Agra CEAS*). *Núñez Ferrer and Kaditi* are more positive about the tourism measure, which is regarded as having had the largest impact on rural incomes, including farm incomes.

The EC's cohesion reports are generally positive in their judgement of the value of investment in rural tourism and craft activities, rural training and micro-business support. These kinds of action have also been investigated in respect of the performance of LEADER, where some very positive results of programmes have been reported (see below). In essence, many of the points made in these reports are similar to those which we have discussed in respect of axis 1 schemes for farm investment, processing and marketing, and training. Problems of deadweight and displacement (particularly displacement, in respect of rural tourism), poor targeting to real needs, and potential over and under compensation, can apply equally to axis 3 schemes for investment and training in other rural economic activities, including tourism and crafts and micro-businesses. Local level targeting and integrated delivery, working to an agreed strategic approach, appear likely to enhance the cost-effectiveness of such measures, therefore.

Measures supporting diversification have resulted in increases of on-farm and off-farm employment (e.g. Finland and Spain) and the maintenance or improvement of the structural characteristics of the rural economy in Germany (*Agra CEAS, 2005*). In Italy diversification was very effective in fostering women's entrepreneurship: in Objective 1 regions, women were attracted by the possibilities offered by diversification and often took advantage of them, although on average with a lower capital intensity than for projects undertaken by men.

There is little evidence concerning the effectiveness of measures aimed at improving rural infrastructure. From Italian evidence, investments on water infrastructure appear to have positive impacts, because they generally enable interventions which would be barely affordable for individuals due to their size, but impacting positively on water saving and on overall sustainability. In general, small but strongly innovative interventions have had significant effects on the structure of local agricultural systems. Focused in many cases on marginal areas, these interventions can have a significant social meaning and actually reduce isolation and improve both quality of life and production conditions. Concerning impacts on rural income, the evidence is too scarce to draw any conclusions. The frequently-observed delays in financial and physical implementation of this measure can hamper its effectiveness. The integration of EU rural funds with national instruments can allow quicker implementation, however.

Some of the axis 3 measures bear similarities to LEADER, in their basic approach, and thus it can be anticipated that their performance might also be dependent upon similar factors. Thus in respect of UK schemes targeting village-based renewal actions, for example, *Kambites (2007)* notes that 'It is probably an inevitable consequence of this type of scheme that areas already relatively high in social capital are more likely to apply for and receive grants. If the intention is to help more deprived areas, then the schemes will need to be more strongly targeted on those areas.'

The evaluation of EAGFF-Guidance highlights that measures in support of basic services for the rural economy and population resulted in improvements in living conditions and welfare for rural populations in, for example, Finland and Portugal and the creation of employment in Greece (*Agra CEAS, 2005)*. In Italy the only case where these measures proved to be successful is Tuscany, increasing social inclusion and improving quality of life. Critical success factors can be

traced back to implementation through an integrated approach including various types of services (services to farmers, kindergartens, services to disadvantaged people, etc.), encompassing the participation of various local institutions and the population (*Agriconsulting, 2005*). Some evaluators note that although rural service delivery often generates positive impacts on the quality of life of rural inhabitants in the short term, the prolongation of these impacts in the long term is linked to persistence of the services, which is however likely to generate high administrative costs (*V&V and LSE, 2006*). There appears to be an underlying assumption that all projects can and should become self-funding after the grant period ends (usually 3 to 5 years), whereas in many cases, this assumption is not well founded. In the case of rural transport grants in England (*Moseley et al, 2007*) this did not prove possible, and many projects simply ceased when the funding ran out.

Axis 4

There is a range of literature available on the effectiveness of the LEADER approach at both EU and national level, covering experience across the EU-15. This predominantly relates to socio-economic outputs (such as the number of people who have attended training events or the number of jobs created), and there is less evidence that relates directly to key environmental outcomes. *Shucksmith et al, 2005* notes that the potential of LEADER lies in its improvement of intangible factors such as raising awareness, building capacity and strengthening capacity and co-operation within a region. It is therefore difficult to quantify such impacts. Nonetheless, Lukesch (2003) gives a considered pan-EU evaluation of the contextual factors which appear to favour a strong performance by LEADER.

At the same time, this kind of policy approach requires certain pre-conditions to work effectively. From an institutional perspective, spending resources to support human and social capital is both more intangible and potentially more 'risky' than funding physical capital or ongoing land management activity where outcomes can readily be related to the investments made. Funding agencies and higher-level policy institutions have to enable a relatively 'risk-comfortable' policy framework within which local collective educational, awareness-raising or capacity-building initiatives can operate. The evidence from LEADER experience in the UK during the 1990s (Slee, pers. comm.) suggests that higher-level bureaucracy became an obstacle to the effective and flexible operation of the groups during the 1994-9 funding period, by comparison with the arrangements in the earlier 1991-4 period, and that this was partly due to the intervention of more layers of UK government in the management of the funding streams, reflecting a lack of trust in the previous 'global grant' approach. At the local level also, partnership-based initiatives which empower citizens sometimes come into conflict with already established local government structures and processes and in these circumstances may be perceived as over-reaching and undemocratic. In commenting upon his work to evaluate the LEADER II programme at European level (OIR, 2003), Lukesch (2003) noted a relationship between how successful LEADER was, how devolved or decentralised policies tend to be, and how 'crowded' the rural political/institutional space was, prior to the arrival of LEADER. This is depicted graphically in figure 4.1 It would tend to suggest that institutional characteristics even at the local level can be an important consideration when seeking to enhance social capital in rural development activity. It is clear that LEADER requires a certain amount of local capacity for individuals within a local community to work together in pursuit of shared goals which are developed and refined through the process of strategy formulation. Whilst the LEADER experience itself undoubtedly builds and enhances social capital where it is effective, it also requires pre-LEADER activity in order to gain sufficient support within a local area, to be initiated.'

Figure 4.1 LEADER and local governance

	Free local Governance space →	**Crowded local Governance space**
Weak political tendency towards decentralisation	Territorial development enterprises with broad range of competences, but restricted by heavy central administrative and control requirements.	a) Weak partnerships. The programme delivery is not very distinctive from other programmes. In some cases it is possible to occupy small, but exquisite niches of innovation. b) Duplication of existing similar structures, scepticism of local/regional politicians.
Strong political tendency towards decentralisation ↓	Local partnerships instruments of local governance, reshaping local decision making structures.	Rather autonomous, dynamic local partnerships functioning as nodes in local negotiation networks. Best chance to fully implement the LEADER method as embodied in the combined application of the eight specific features.

From Lukesch, 2003

LEADER+ evaluations within RDP evaluation cycles are hampered by the general tendency for new LEADER groups to be slow in getting started, and relatively weak at reporting results according to standard indicators. For example in the UK, these factors made it difficult to assess the extent of its impact for Scotland and England MTEs. On the other hand, where it built upon two previous programming periods of LEADER experience – as in Northern Ireland and parts of Wales, a more solid evaluation was possible. Table 4.9 gives an example from LEADER+ in Northern Ireland.

However, the UK reports also suggest that LEADER succeeds in generating soft outcomes in respect of social capital and actor mobilisation even in areas where the overall assessment of achievements is more limited. The LEADER+ approach has reportedly improved the targeting and accessibility of RD aid in Northern Ireland, because of the very local level at which LEADER+ operates and its ability to harness local expertise in Local Action Groups (LAGs). LAGs are also in a position to provide support for grant applicants both before the application process and after approval, which can significantly reduce transactions costs for beneficiaries and thus offers potential to reach those who might otherwise be discouraged from seeking support. '…the high approval rate evident within LEADER+ (with the rate of rejections running at only 16% to date) is in part a reflection of the pre-application support provided by LAG staff and more recently the use of Expressions of Interest (EoI), which has greatly improved the quality of subsequent applications'. (MTE Northern Ireland).

Table 4.9: Key outputs in relation to the Leader+ funding stream

Indicator	Target	Progress	% of target achieved
Key outputs			
Micro-businesses receiving financial support	1,070	474	44%
Micro-businesses receiving advice / support	1,000+	1,176	118%
New micro-businesses created / assisted	230	50	22%
Training, advice or employment programmes	18	21	116%
Individuals supported	40	4	10%
Buildings restored or improved	62	6	10%
Key results			
New full-time jobs created	900	569	63%
Existing full-time jobs safeguarded[45]	930	1,007	108%
Participants in training	2,400	1,581	66%
Restored buildings used by trading businesses	60	4	7%
Key impacts			
Supported businesses still in existence after 2 years	930	6	1%
New micro-businesses still in existence after 2 years	160	0	0%
New full-time jobs still in place after 2 years	650	11.5	6%
Restored buildings still used by businesses after 2 yrs	46	0	0%

Source: Leader+ MTE Update 2006

In addition, the relatively small size of grants enables the decision-making process to take place more quickly than in other schemes. The LEADER approach also makes grants accessible to smaller organisations and groups and also for innovative projects, which might not be supported elsewhere. 'A major benefit of the LEADER+ approach is considered to be the accessibility of the grant support to smaller organisations that would otherwise not be able to access such assistance. LEADER+ allows for more imaginative work to be funded.' (CJC and ADAS, 2003). However, LAGs must become established before they can be effective, and this clearly takes time. In Wales, the LEADER+ programme included a conscious effort to fund an equal number of established and of new LEADER groups, which resulted in a relatively low (around 20%) commitment of funds by 2003. This contrasts with 80% commitment and 43% spend in Northern Ireland, by the same date, where all LAGs date from previous programming periods.

Evaluations of management efficiency in LEADER are generally positive, but these are almost exclusively based upon the views of beneficiaries (both successful and potential), rather than

detailed cost analyses. Some MTEs found administration costs to be high, although these were commonly attributed to the start of the scheme and the need for advance publicity and training. Start up costs are particularly high where community capacity starts from a low base.

In some cases of longstanding LAG performance, LEADER evaluations are able to calculate output or impact indices which compare very favourably against other delivery approaches. For example, the cost per job created figures for some LEADER programmes are significantly lower than those calculated for larger Structural Fund programmes, over a similar period (in NI, the LEADER approach achieved a cost per job which was only ten per cent of that for the parallel Objective 1 programme). In general, LEADER is seen as distinctive from other funding streams as a result of its focus on small applications and grants contributing to very local development, and its support for innovative projects. This is claimed as the main locus for additionality. The inference is that LAGs need to become a stable part of rural development in order to attain their full potential, and that this requires longer than a single programming period, to take effect.

A report by *IEEP and CCRU* (Swales et al, 2004) sought to assess the environmental contribution of the LEADER + programme across the four countries of the UK. This report found that the extent to which projects selected and funded reflect environmental priorities is variable. However, a number of the projects examined appeared to have had positive environmental impacts at the very local scale. Benefits were provided through a range of delivery mechanisms. These included tailored advisory services to farmers and landowners; an 'environmental facilitator' who engages with the local community and all relevant stakeholders; the use of small delegated grant schemes; one off pilot projects; and particularly projects that focus on encouraging behavioural change and community involvement. Basically, the value of LEADER in this context appears to be its ability to mobilise social capital to encourage enhanced environmental awareness and learning, and practical activity among rural stakeholder groups.

4.6. Conclusions - some emerging points of interest

This review of the literature has enabled us to interrogate and summarise a wide range of information which is highly relevant to a consideration of the cost-effectiveness of RD policies and measures. While few studies explicitly consider cost-effectiveness, we can discern much from the costs, results and impacts that have been analysed therein. In conclusion, a few general points of interest should be noted.

Targeting and cost-effectiveness

There is a clear need to strike a balance between targeting schemes to make them more effective in achieving environmental or socio-economic outcomes, and the associated increase in administrative costs that such targeting may entail. Generally speaking, effective targeting can take time to become embedded in policy design and delivery – administrations need to test out and refine the most appropriate approaches, for this. In large part, it is not something that can be achieved simply by eligibility criteria prescribed at an international level – these are usually neither sufficient, nor efficient, in targeting the available resources. Studies have given examples where schemes with standard eligibility criteria are then delivered through highly competitive or 'first come, first served' processes which inadvertently reduce their additionality (eg Germany, UK, Czech examples). They have also examined cases where schemes with relatively detailed standard eligibility criteria fail to be effective because they do not suit the local context within which these schemes are applied (eg early retirement studies).

There is a danger that if measures are not targeted on clearly identified local needs or situations, they will be mainly taken up by relatively privileged beneficiaries with high social capital, or the resources to access professional help in applying for funds. This could lead to high levels of deadweight and low additionality. These problems bedevil many longer-standing and higher spending measures of RD policy, including farm modernisation and adding value aids.

The evidence suggests that the key level for effective targeting is usually sub-national, because it is only at this level that measures can adequately be adjusted to account for local conditions which affect delivery and outcomes. However, those kinds of measure which are tailored specifically to address particular pre-existing natural or socio-economic conditions (objectively measurable from data) can sometimes be 'zoned' territorially via national or EU-level criteria.

Some of the LEADER evaluation evidence suggests that very local level targeting and devolved delivery can produce extremely cost-effective RD performance. However, this experience relates very much to small-scale support, by comparison with the sums devoted to RDPs more generally. The question remains open, to what extent this highly positive performance at micro-scale can be effectively and efficiently 'scaled up' through the adoption of similar delivery and operational principles at a much larger scale.

Monitoring and control

There is a strong inference from the literature reviewed here, that the monitoring evidence for RD performance is weak in a number of areas – particularly in respect of environmental and social results and impacts. This weakness is due to the general relative under-investment in monitoring activities made by administrative bodies and agencies both at national and at local level. Monitoring investments may be high especially at the beginning of the schemes, when systems have to be set up and specific expertise has to be created. However, after start-up they incur a maintenance cost which is compensated by the amount of information produced, and its value for providing feedback on programme revisions and implementation.

Sometimes, however, it is recognised that there are limits to the level of investment in monitoring that could reasonably be justified. Whilst monitoring is necessary, it can also be expensive. Over-monitoring can therefore reduce the cost effectiveness of schemes. There is evidence from the research literature that this is an important consideration for Axis 2 agri-environment schemes, as well as for LEADER and other micro-level, community based approaches, where local deliverers frequently lack the capacity to deal effectively with monitoring requirements. The review of Czech republic literature suggests that in situations where the administrative capacity to deliver schemes effectively is recognised as in need of improvement, an over-emphasis upon monitoring to strict EU protocols can be counter-productive. This is because it focuses scarce resources on administrative tasks and procedures which do not, in themselves, achieve results on the ground. At the same time, officials who are preoccupied with ensuring that they have met EC requirements can all too easily generate over-complex and discouraging application, approval and monitoring systems, when viewed from the perspective of the beneficiaries.

The importance of scale and its relationship to flexibility

Very flexible small-grant schemes can be valuable in meeting local needs because they are able to be adapted to specific local conditions. This kind of adaptation may include eligibility criteria, but in many cases these are less important than the delivery approach (e.g. type and skills of professionals involved), in achieving successful targeting. Such small grant schemes may have

relatively high administrative costs, but they appear very effective in pulling in match-funding (public and private) and hence increasing their cost-effectiveness, overall.

With regard to LEADER, performance appears variable, depending upon territorial context. Where there are problems, they are often related to a lack of prior familiarity with LEADER and the time needed for LAGs to become established. However, where it is well supported and given time to become established, the evidence suggests it can be a very effective and cost-efficient method of delivering rural development goals, at the local scale.

Limitations of the approach

The studies reviewed for this exercise are limited in terms of their explicit handling of cost-effectiveness, largely because such an assessment was frequently not their aim. Most commonly, the evaluations seek to give an indication of (actual and potential) effectiveness, and only a minority of reports explicitly consider efficiency in any depth. Our analysis cannot therefore be considered as comprehensive, but indicative. Furthermore, we are conscious that at this generalised level of discussion, the points that we have identified risk appearing somewhat superficial, despite being based upon a very large number of much more detailed research studies and data which we cannot present in full. We have sought to exclude studies and opinions which are not founded in any robust empirical analysis, in drawing our conclusions.

It should also be noted that the evaluations we have analysed faced a number of significant methodological and data-related difficulties. Firstly, scheme performance indicators often measure outputs rather than outcomes. Often they concern the uptake of the scheme. Whilst this is useful information, it is only a partial indicator (necessary but not sufficient) of the effectiveness of the scheme. In the case of multi-goal projects, indicators sometimes simply measure the amount of money spent, because of the difficulty of specifying impacts in advance for such potentially wide-ranging project actions. The results and impacts of policy interventions often take a long time to become apparent, and cannot be detected by evaluations conducted at mid-term stage. Actual impacts (positive and negative) may therefore be greater than reported.

Secondly, a lack of quantitative data on which to base analyses of impacts is apparent. There is a lack of baseline data against which to compare data collected at a later stage. The cost of collecting data is prohibitively high in some cases. This was especially relevant in the case of agri-environment schemes, where figures for e.g. biodiversity levels, before the land entered the relevant scheme(s), were not available and costs for collecting this kind of information on a regular basis are potentially substantial. Thirdly, some evaluators comment that the objectives for measures are sometimes unclear, rendering it difficult to assess if objectives have been met, if indeed they are measurable and impacts have been monitored. In certain cases the objectives of some measures are recognised as being too broad to determine effectiveness.

In the case of financial measures such as administration costs, evaluations frequently find it difficult to make comparisons across programmes as different methods of calculation have been used in the evaluation of different schemes. In those few cases where cross-scheme, quantified comparisons have been made, it is difficult to see the extent to which variations in performance are related to scheme design, as opposed to variation in contextual factors. Additionally, while many studies tend to assume that lower administrative costs are generally desirable, better targeting and better support for beneficiaries can increase effectiveness but also increase the administration costs for measures or approaches (this point was also indicated in the case studies of delivery, section 5.4).

Section 5. Towards an enhanced framework for RD policy

5.1 Introduction

This section of the report brings together four sub-tasks from the original specification for task 5, which was focused upon generating proposals for improving RD instruments, in future. These are:

5.2 Presentation of a comprehensive typology of RD interventions, including a consideration of policy roles and effectiveness;
5.3 Development of a catalogue of RD instruments, existing and potential, based upon the typology;
5.4 Examination of RD policy delivery mechanisms to identify the best approaches and scope for improvement;
5.5 Brief meta-evaluation of RD instruments in individual 'fiches', to generate suggestions for their improvement.

These tasks are presented below.

5.2 Rural Development (RD) as the protection, enhancement and mobilisation of rural capital – a typology of RD interventions

5.1.1 Conceptual approach

In seeking to develop a typology of RD interventions which is appropriate for the European situation, we have made a broad survey of the relevant literature and used this to develop our approach. In deciding on this, we have been influenced by what seem to be the most promising themes in recent international discussions as well as within Europe. We have also looked for an approach which gives a comprehensive, but nonetheless manageable, number of separable issues and themes for us to work with. For these reasons we have chosen to focus upon the concept of capitals, in RD.

It is possible to characterise the process of sustainable rural development as pursued by the CAP's Second Pillar and other European, national and international policies, as one by which rural assets and potentials are protected and developed. In the literature, there has been much discussion in recent years about the concept of different kinds of 'capital' being applied in development (including regional, economic and rural sustainable development). From this perspective, rural resources can be divided into a number of broad categories corresponding to kinds of 'capital', each of which can potentially merit RD policy attention. The key question for policy is therefore: How can sustainable development of rural areas be achieved, what are the main factors stimulating and sustaining it, and what is the appropriate role for policy, in seeking to promote and enhance these processes? From the perspective of capitals, we should therefore focus attention on what they are, and how they can be utilised to achieve sustainable RD.

The main kinds of capital commonly promoted or supported through RD or SD (sustainable development) policy would cover[37]:

- Physical (manufactured) capital
- Financial capital.
- Human capital
- Social capital
- Natural and cultural capital.

Together, these provide the building blocks for a living countryside in which natural, socio-cultural and economic activities operate in a balanced and sustainable way. The concept of 'capital' is something accumulated (by humankind and/or nature) in order that services of value to society can be delivered over a subsequent period. The associated processes of capital depreciation (wastage, in quantity and/or quality), appreciation (where stocks are built up over time), and of capital utilisation or mobilisation (either reversibly or irreversibly) in the provision of goods and services, are also relevant.

This approach is in line with the Lisbon Agenda for growth and competitiveness, which depends on adequate amounts of appropriate capitals as well as on their utilisation in dynamic and innovative ways. It is also consistent with the Göteborg Strategy for sustainable development, which requires meeting the needs of society today without compromising the ability of future generations to meet their needs, thus placing emphasis upon protecting non-renewable capital and enhancing renewable capital, particularly in respect of the natural environment. Notions of strengthening capital, particularly human, social and cultural, can be used to respond to further important EU goals: quality of life, human rights and equal opportunities for citizens in society.

In respect of these capitals, the purpose of RD policy intervention is to enhance the sustainable development of rural areas and to create 'value added' in that respect. Based upon the assumption that the identified forms of capital are the *determinants* for sustainable development, policy interventions may be designed in order to:

- protect existing reserves or resources of capital from actual or potential threats to their quantity or quality (causing decline, degeneration, or irreversible loss);
- build up or strengthen these capital reserves;
- mobilise these resources in a sustainable fashion;
- particularly target those forms of capital which have the highest potential to contribute to sustainable rural development.

While all play a crucial role in all regions, the balance and endowment of the various forms of capital will differ, in different locations and over time. Based upon this variation, different resource endowment needs and challenges can be identified. These have been discussed in our consideration of rural characteristics and indicators of need (sections 3.3 and 3.4). From an appreciation of the needs and challenges in respect of the different types of rural capital, we consider rationales and appropriate goals for policy intervention, and briefly discuss the main ways in which these goals are usually pursued through different delivery modes or approaches. This provides the framework for our typology of interventions, from which we can derive a catalogue of instruments.

[37] these have been identified from the literature as generic types of capital; we will address below which of them "merit" RD policy attention in various ways.

5.1.2 Examination of RD intervention rationales, by type of capital

In the sections that follow, each of these capitals is described briefly; the main rationales for policy intervention are summarised; the objectives of intervention are specified; and the most important delivery mechanisms described.

5.1.2.1. Physical (manufactured) capital

Description
This is a classic type of capital, which is commonly referred to in the economic analysis of development activities and actions. In economic theory, the act of primary production is a process by which land, labour and capital are jointly applied to generate a range of goods and services, and in this context, capital generally refers to plant and machinery – the physical capital assets that businesses require in combination with an adequate supply of labour, to undertake production activities.

The process of economic development commonly involves the accumulation and application of physical capital. In broad terms, the application of such capital enables an increase in the productivity of both land and labour. Thus typically, the development of agricultural production in rural areas from a subsistence role into a commercial role is seen as a process enabled principally by the combination of human and physical capital, applied to the management of natural capital. Traditionally, physical capital has been perceived as a principal driver of such development, and thus a focus of policy attention. In the pursuit of rural development, the provision of physical infrastructure via which businesses and communities can exchange and interact commercially is also crucial.

Rationale for intervention
Particularly in rural areas with low population density, the private sector is likely to under-provide appropriate infrastructure, by comparison with a socially optimal level. This is because of the twin problem that:
infrastructure frequently has public good characteristics (eg it is difficult, although not impossible, to restrict the use of all rural roads, railways and watercourses to paying customers and to charge in ways which adequately reflect levels of use), and
the cost per beneficiary is generally higher than in urban areas.

In the case of private physical capital, the rationale for public intervention is usually explained in terms of targeting support to businesses and sectors to overcome transaction costs associated with being located in rural areas. A more general rationale can be derived from the fact that rural areas tend to have a disproportionate share of very small businesses, which tend to under-invest in their own capital because of poor information and relatively low commercial assets by comparison with other, larger businesses which tend to operate in urban or peri-urban locations.

Goals of intervention
It is very common, and a long-established feature, for the state to provide a certain basic level of infrastructure and related services to rural areas, to support economic and social activity. Historically, there has also been a significant focus of public rural development support towards assisting private businesses with the provision of physical capital. This has been used as a means of encouraging businesses to locate their activities in rural areas (the classic style of

'exogenous rural development' activity pursued in many parts of Europe in the 1970s and '80s). Equally important has been the use of support for physical capital as a means of stimulating growth and increased productivity among those businesses already operating in rural areas – most notably, in agriculture. In recent years, a number of studies and analyses has challenged the assumption that providing support for private physical capital is a valuable role for RD intervention. Critiques are based on evidence of low additionality, high displacement and deadweight, in respect of public funding used in this way (see also section 4).

Nonetheless, it is apparent that particularly in remote or relatively economically marginal or disadvantaged areas and situations, RD interventions which can help small, particularly innovative or unusual businesses to obtain physical capital in order to develop successfully, can be justified. This is on grounds that the private sector would not provide adequately because these enterprises are higher risk, lower value or more costly to support in this way than businesses in other locations and situations. Intervention can support *innovation* in sustainable development, in particular.

Main delivery approaches and actors involved
In some countries of the EU the provision of public infrastructure in rural areas is entirely delivered through public sector bodies. In many countries also, these services are provided through various forms of public-private interaction, where governments underpin the support of various rural services (post offices, buses, telephone exchanges, water treatment) provided and maintained by private businesses; or where *syndicats* or other collective organisations plan and manage rural facilities.

In respect of private physical capital, public policies generally offer financial aid to private businesses to enable them to invest in such capital, given either as a lump-sum grant or (low-interest) loan. In addition, public intervention can be targeted at providing loan guarantees to reduce the associated risk, but this is a kind of financial capital.

Support for large-scale physical capital is a major element of Regional and Cohesion policy funding. This has undoubtedly had significant impacts across rural Europe, though often focused primarily upon urban and public infrastructure. An explicit rural strand to these policies was developed during the second programming period for territorially-based programmes, in the Objective 5b areas. In the agricultural sector, the establishment of the particular suite of farm structures measures in the wake of the Mansholt plan, in the early 1970s, enabled EU funding to help stimulate farm enlargement, modernisation and specialisation through investment in (largely) physical capital on farms and in the agri-processing sector. These measures continue to form the largest element of spending on competitiveness in farming, within pillar 2 RDPs.

5.1.2.2. Financial capital

The funds used by entrepreneurs and businesses to buy what they need to operate, and by consumers to purchase major items such as new housing, are "capital" only in a transactional, monetary, or "liquid" sense. However, the central role of financial capital in development has long been recognised. Much of the historical development of European economies has depended on the availability to entrepreneurs of financial capital from a variety of sources, including families, landowners, and bankers, as well as the state. In a sense, financial capital represents a key means for transforming other kinds of capital in the pursuit of effective rural

development. It facilitates the transfer of resources among and between actors in development processes, to enable the generation of more effective outcomes.

Rationale for intervention

As with other forms of capital, the market system does not always operate at full efficiency in the allocation of financial capital, even though money is an inherently simple commodity by comparison with other forms of capital (being more 'liquid' – substitutable, exchangeable etc). The causes of market failure or imperfection in this sphere often relate to imperfect information and the problems of dispersed settlement. In some cases, potential private funding agents are unaware of viable lending opportunities, or they appear unwilling to advance loans to them. In other cases, there is no widespread network of financial institutions available to entrepreneurs. Sometimes failures relate to public good issues, where the benefits of e.g. investment in natural capital will go to people (local residents, visitors, future generations) who cannot be expected to pay back directly. The relatively low economic valuation of small, rural land-based businesses in poorer parts of Europe can be seen as a problem of both imperfect information and public goods, in that they can embody considerable natural, cultural and social value which is not recognised in markets, and perhaps insufficiently recognised by local actors. Finally, there can also be considerable issues in respect of equity and access to finance, in that financial capital can be prone to accumulate where it gives greatest private returns, but this can also generate significant inequity.

Objectives of intervention

The main objective of intervention in this area is to ensure full and fair competition in the provision of credit to potential RD borrowers who may otherwise be disadvantaged by lack of access or higher transaction costs. One area of particular concern in some new Member States is to ensure that land and other physical property can be accepted and used by lenders as collateral. This adds to the need to finalise and embed property ownership arrangements – including judicial systems - in countries still emerging from socialist regimes where individual and business ownership was not clear, or has been contested in the transition period.

Main delivery approaches and actors involved

Financial capital can be provided in a variety of ways, e.g. loans with different repayment requirements and interest rates, and loans or grants of varying proportions (match-funding). A range of financial institutions and approaches has been created, most funding particular types of investments in which they have specialized knowledge, thus reducing the problem of asymmetric information in which the borrower (or grantee) is better placed to judge the worth of the capital asset than the lender (or grantor). "Land banks" have specialized in long-term mortgages for purchasing land, while merchants provide short-term credit which allows farmers and others to purchase variable inputs which can be turned into saleable output within a short period. State banks or development agencies able to lend or grant money to worthwhile causes have operated in many countries. The problems of successfully achieving additionality and not "crowding out" (where public actions simply replace private ones) are frequent but can be addressed, for example using strict rules of eligibility, both for borrowers/grantees and for the object(s) of awards.

In EU policy, financial capital has been supported through the instrument of 'financial engineering', which has formed part of the suite of structural fund measures in the territorially-delimited programmes of Objective 1, 2 and 5b. The measure was also included in the menu for Regulation 1257/1999. The evidence in section 3 of this study suggests that it has not been

extensively used in 2000-06 RDPs, but it has been applied in Objective 1 and 2 programmes over the same period. The modes of operation of financial engineering are varied, and usually tailored to the specific circumstances of the regions and stakeholders involved.

A body of recent research examining the flow of financial capital within rural and urban economies has illustrated patterns which can represent significant obstacles to effective rural development. In some cases, the finance that is generated by rural businesses does not remain within the wider rural economy but is 'exported' immediately to urban areas. By contrast, certain kinds of rural economic activity are known to provide a much greater degree of 'local multiplier' impacts, where the funds generated remain within rural areas to promote further benefits in respect of rural jobs and services. There have been calls for a greater focus of rural development policy to be devoted to ensuring the protection and enhancement of rural financial capital stocks and flows (e.g. Roberts, 2004; Roberts et al, 2006). Examples of this kind of development action – including the creation of local currencies and exchange schemes, and local credit facilities - can be found in many contexts around the world. Their potential benefits were analysed and promoted within the sphere of so-called 'New Economics', in the 1980s (Ekins et al, 1986). In these analyses, the rationale for public intervention is based on grounds of the inequitable distribution and flow of financial capital in rural development contexts.

5.1.2.3. Human capital

Description
Human capital describes the skills, energies, knowledge and enthusiasms of individuals, which can be applied in order to promote economic, social and environmental development. The level of skills, knowledge and entrepreneurial ability among people working in different contexts is a critical determinant of their ability to succeed economically. Competitive and viable rural economic activity depends, in part, upon the availability of adequate levels of human capital in rural business. Likewise, individuals with knowledge and skills in environmental management or systems are important for ensuring a sustainable rural environment, while those skilled in cultural, social and emotional development can promote rural well-being and quality of life.

As well as the attributes of human capital that are important drivers of sustainable development actions, research literature has also focused attention on the sheer volume of rural human resources that are available to be applied in development activities. The phenomenon of rural depopulation has been a longstanding concern of RD policy (CEC, 2006). According to the Fourth Report on Economic and Social Cohesion (Commission, 2007), "*Significant outward migration from rural areas is still the prevailing trend in large parts of the EU, with damaging effects on their prospects for economic development.* …' As we have seen in the analysis of rural characteristics in section 3.3, it is no longer the case that most rural NUTS3 areas have experienced population decline in recent years. Indeed the trend is the reverse, with average rural population change being positive for the five years between 1999 and 2004 across the EU-27. However, decline is occurring in some particular locations and situations. At the same time, political attitudes towards population decline clearly differ between countries and regions, with some Member States apparently unconcerned about maintaining significant population in their most remote regions while others clearly see this as a concern.

Human capital is also implicated in respect of inter-generational transfer in agriculture. It is known that the average age of principal farmers tends to be significantly higher than the average age of managers of other kinds of business, and that in some countries there has been a trend

towards this average age increasing, as development takes place. The conventional interpretation of this process is that because traditional or smaller farms generate low incomes and have limited potential for adding value, young people are not attracted into farming. Therefore the land increasingly becomes managed by a residual population of ageing farmers whose capabilities represent a major barrier to effective restructuring and modernisation. The result can be a persistence of small holdings with limited income generation potential, managed by people with low levels of formal education and training and little option but to stay on their holdings, who suffer increased poverty and social exclusion as a result. However, this pattern is not common to all Member States or regions within the EU-27. There are examples where higher average age among principal farmers is a side-effect of how farm businesses are organised (in that younger farmers may run the holding, but the older generation retain the formal legal responsibility until their death). In other cases, it can be a temporary phenomenon in that a particular generation of older farmers must eventually retire or die, after which point their land is taken up by neighbouring holdings and then restructuring and modernisation can occur.

Rationale for intervention

It is commonly found that there is a disparity between urban and rural areas, in respect of the levels of educational attainment and vocational qualifications of the population. In many cases, this disparity is closely related to the differential economic structures of urban versus rural areas, with the latter characterised by a relatively high percentage of the working population employed in the primary sector – farming, forestry and fishing. These sectors have traditionally been those where recruits come largely from the offspring of those already working in that sector. In many cases, decisions of the younger generation to follow family occupations are made without recourse to formal qualifications and there is no competitive employment process, especially within families.

Two factors point to likely market failure, in this respect:

Where many people work in small family-based businesses, it can be difficult for them to allocate sufficient time and resources to training, and there is a recognised tendency for such businesses to therefore under-invest in their human capital, relative to what would be optimal, even in a long-run private economic sense. This represents inefficient resource allocation due to imperfect information and less than complete factor substitutability, as well as high transaction costs, in some cases.

The provision of training or continuing professional development (CPD) opportunities in areas where the population and the workforce are geographically dispersed and remote from urban centres tends to be more expensive than in an urban context (dispersal increases cost per head). This can mean that people in these areas are relatively poorly provided with educational or training opportunities, by comparison with their urban counterparts (Countryside Agency, 2000). This therefore represents a likely pattern of resource allocation that would be judged inequitable, on the basis of equal opportunities policy.

In many parts of Europe, the level of formal education qualifications obtained by rural residents, particularly those working in agriculture, may be notably lower than national or EU average levels. Whilst barely statistically relevant in the countries of northern Europe where the agricultural economy is productive and the rural economy diverse, such problems remain in significant areas of southern and eastern countries. These include Bulgaria, Romania, Poland, Hungary, Slovakia, and parts of Spain, Italy, Greece and Portugal.

In relation to the rationale for maintaining or increasing rural population – the absolute resource of human capital – this depends critically upon location, and societal values. The rationale for intervention is usually one of public goods and/or externalities, in that the loss of population is occurring because the benefits to natural and cultural capital that the population delivers are not sufficiently rewarded in commercial markets. The rationale for intervening in inter-generational transfer processes in farm holdings usually relates to the specific characteristics of this sector, which can give rise to significant transaction cost barriers to the effective reallocation of resources, when market and policy signals change. Thus, policies are devised which seek to reduce the transaction costs of inter-generational transfer.

Objectives of intervention
The combination of rurality (remoteness), a high proportion of micro-businesses, and significant pressures for adjustment and higher standards of business operation, create a probability of imperfect market functioning. Public intervention may be needed to address these imperfections, by promoting training, education and information.

Recent trends have increased the priority for investment in rural human capital. Increased obligations upon farm businesses to demonstrate competences in a wide variety of management skills and processes – including environmental management, and food safety and hygiene, for example – mean that the need for appropriate technical and managerial competence among rural resource managers has increased. Significant changes in the policy framework affecting many rural businesses – most notably the reforms to the CAP since 2000 – have also increased the importance of appropriate skills and training for the farm and forestry sectors, in particular. As agricultural support becomes decoupled from production and guaranteed prices are cut, farmers face increased international competitive pressures and thus it becomes more important that they have the entrepreneurial ability to meet these challenges, in future. As farm businesses restructure, there is a need for those leaving the sector or looking to earn income from other, complementary activities, to retrain and acquire new skills. An emphasis upon investing in human capital is also in the Community Strategic Guidelines, echoing sentiments in the Lisbon strategy for growth and competitiveness.

Main delivery approaches and actors involved
Most commonly, investment in human capital in RD policy takes the form of:

- aids to subsidise the full cost of individuals (based in rural areas) taking up training or educational opportunities, which can include short courses, self-help groups, demonstration events, advisory sessions on farms or in village halls, etc.
- aids to training/education providers to develop new courses targeting rural needs
- aids to help establish new training facilities or extension services in rural areas,
- aids seeking successful inter-generational transfer in farming, in particular, in an attempt to encourage structural change which promotes greater sector productivity.
- In regional and national policies, there are also examples of:
- aid to support services which make person-to-person links between successful businesses and those just starting up, to provide business mentoring and advice during this particular developmental phase;
- aid to enable people to have better access to the training that is on offer, by supporting services such as childcare or rural transport, or enabling training providers to alter the modes of training delivery so that it can be taken (physically or electronically) into remote rural areas.

In EU policy, learning and skills acquisition in rural areas are supported via the European Social Fund, as well as under Pillar 2. Generally speaking, ESF money applied to rural areas has been focused upon non-farm sector training (- although training may frequently involve farmers, they learn about diversification beyond agriculture, or general entrepreneurial skills, etc.). CAP funding has until 2007 been limited to 'vocational training' for those in farming (and forestry, since 2000). However, perhaps partly because the general cost per beneficiary of training activity is relatively low, and also because the outcomes of training are sometimes difficult to demonstrate, measures to support training generally receive lower levels of funding than other RDP measures which promote similar outcomes.

In respect of achieving a slow-down or reversal in population decline in rural areas, the choice of intervention types is less uniform. The ESPON project (2006) emphasised the point that to retain and attract population in depopulating areas, the key action is usually to enhance economic opportunities and quality of life in those areas, rather than (or as much as) to try directly to change migration rates and patterns. Thus, a potentially very wide range of other RD interventions can contribute to this aim.

In respect of inter-generational renewal in agriculture, the support for young farmers measure was introduced into CAP policies under Objective 5a Guidance funding, as well as the measure to promote early retirement of farmers. The young farmer measure offers financial assistance to help the installation process, to any eligible farmer who draws up a suitable business plan. The aid for early retirement aims to support restructuring and improved productivity as a result. Whereas young farmer aid is generally given for only a few years, early retirement aid can last for 15 years, for each individual beneficiary. The rationale behind such a long term payment appears to be largely social, in that the instrument offers some degree of financial income security to beneficiaries who commonly have no other guaranteed income once they cease to farm.

5.1.2.5. Social capital

Description
Relatively recently, *social capital* and its potentially important role in rural development and competitiveness have come to be recognised across the EU. Social capital has been identified as having important potential to support or stimulate economic growth and competitiveness (Shucksmith et al, 2006, EFLWC, 2007). In the research literature, social capital is divided into two main types: bonding and bridging capital. Bonding capital is that which is found in close-knit groups which identify with common histories, aims, experiences or goals. Bridging capital is that which supports social linkages between different groups, sectors or interests. Both types of capital may be important in economic development, but there is a body of research evidence to suggest that bridging capital, in particular, can be a critical determinant of the economic *competitiveness* of rural areas' (e.g. Courtney et al., 2001).

Group activities and networks can also be a central element in successful *environmental management* of rural areas. Local cultural knowledge, held by individuals and groups in rural areas, can be invaluable for environmental protection and enhancement (RSPB, 1999). Effective management of the environment at a landscape scale, or in respect of the provision of ecosystem services, often requires co-ordinated or collective action by many different landholders within a local area. Thus, particularly in the context of pursuing current EU

environmental priorities such as the protection of water resources under the Water Framework Directive, schemes and initiatives that can effectively engage *groups* of landholders in environmental management have become popular (Mills et al., 2006, Dwyer et al., 2002).

In the context of rural development activities, social capital (also termed local collective 'knowledges' and networks, in the research literature) also underpins the generation and renewal of unique local assets (e.g. specific management practices, cultures, traditions, artefacts and activities). Thus there can be a direct relationship between social capital and cultural capital. The combination of social and cultural assets alongside environmental capital also offers a unique resource for economic development, in that a locality's culture, crafts/skills, social networks and the nature of its environment (location, landscape, biodiversity etc.) can together represent its 'Unique Selling Point' (USP). In economic terms, such a USP can offer particular opportunities for innovation and entrepreneurial activity (Dwyer et al., 2003; Lukesch, 2003).

Rationale for intervention

The case for public intervention to promote or sustain social capital within rural development is largely based upon 2 arguments:

- imperfect information impedes the functioning and development of markets, particularly where this concerns inter-sectoral linkages and opportunities and scope for positive synergies between actors who would not normally interact in their day-to-day activities;
- physical and cultural barriers to effective collective action are related to the geography of dispersed and small rural settlements, as well as the tendency towards insular social and cultural networks within these settlements which can create problems for successful adaptation (e.g. suspicion of external 'officials', mistrust of mainstream attitudes which are insensitive to local situations, etc).

The opportunities for developing and maintaining social capital in rural areas may be more limited than they would be in larger conurbations. Rural infrastructure is often weaker or scarcer than in urban areas, and low densities of settlement may render the provision of efficient and regular services for rural populations uneconomic or relatively scarce (Moseley et al., 2006). Rural inhabitants often have to travel further to shop, to schools, to work, to visit a doctor, lawyer or bank, or to meet with friends and colleagues (Countryside Agency, ibid). Poor accessibility is often a key issue for rural inhabitants and rural businesses, which therefore impedes their ability to interact with other key agents in rural areas, establishing relationships of trust which can constitute positive and valuable networks for information and social learning.

On the other hand, rural populations in some countries or regions have traditionally been, and remain, less mobile than those living in towns and cities. This means that rural communities have the potential to produce and maintain stronger interpersonal ties - relationships which have been built up over a long period of interaction. Rural sociology research has long recognised the existence of rural communities in which kinship ties are particularly strong and thus there are higher levels of 'bonding' social capital than would be common in many urban areas (e.g. Newby, 1980). This can sometimes present obstacles to effective rural development. Groups strongly bonded by kinship may be insular, suspicious of outsiders and thus unwilling to seek support from outside the community to help them meet needs or develop resources (Courtney, 2006).

The process of economic development and political change, as it has affected rural areas, has created or exacerbated some problems of social capital in rural development. These include

weakened social ties and community capacity, and conflict and suspicion within communities. These problems have also arisen as a result of political upheaval in central and eastern Europe during the 1990s (EEAC, 2006). In such locations there may be a strong mistrust of collaborative structures and institutions, borne of negative experiences in the past. In other areas, weakened ties result from trends in economic development, including growing marginalisation of less accessible rural areas. Farm structural change to gain economies of scale in production has increased the isolation of those who work in farming, with potentially negative impacts upon well-being and quality of life among farmers and their families (Lobley et al., 2006). Counter-urbanisation, which is now a dominant feature of rural areas in several Member States (Buller, 2003), also brings with it social challenges. As non-farming rural residents increase in number, their values, understandings and habits may clash with those of more longstanding farming community members, stimulating schisms in community networks and conflict over future development. This phenomenon has been extensively documented and analysed in the UK over the past 30 years (e.g. Pahl, 1965, Marsden et al., 1993).

A final point must be made in this context about the relationship between social capital and perceptions of powerlessness to act to improve one's situation. For those communities which have long survived through a culture of strong government intervention, an apparent result can be the development of an enduring 'dependency' on public funding and the idea that *'things happen to us',* as opposed to the community feeling that it can make a difference. This can often be a major barrier to successful rural development. There is some evidence to suggest that social learning approaches – building social capital in order to help communities to articulate concerns and address needs - can be an effective way to overcome these kinds of perception (AEIDL, 1997).

Objectives of intervention

Policy interventions for social capital mainly seek to generate, sustain or strengthen the effectiveness of collective and networking-based rural actions. Such efforts are usually focussed on commercial, educational or research networks through which innovations and ideas can spread, helping to counteract the natural tendency towards city-based development. Intervention can fund inter-personal contact via meetings, newsletters, websites, etc. amongst entrepreneurs or "resource controllers" (Saxena and Ilbery, 2007). Alternatively, it may support targeted and pro-active task forces, joint marketing groups or technology schools through which otherwise isolated individuals and enterprises can learn from each other and experts. Where take-up (absorption) of existing aid schemes is low, the involvement of *animateurs* or consultants may help to disseminate awareness and build application confidence and skills. Development of less directly commercial "social" capital – which may in turn lead to economic activity – can be encouraged via schemes for women's groups, cultural exchanges, etc. There is also a close relationship with issues of governance, because collective action requires some consensus to be developed among members of the collective in order for that action to be secured. The level or focus of intervention also deserve intervention consideration, e.g. as to the geographical extent and administrative level of the communities or areas to be included, or the inclusion or exclusion of certain social groups in eligibility.

Main delivery approaches and actors involved

Perhaps the strongest example of public intervention to promote social capital as a tool for successful rural development comes from the record of the LEADER Community Initiative. However, a range of other national and regional approaches also adopt similar methodologies, including integrated territorial programmes (Italy) and Regionen Aktiv (Germany – see section

5.3) This approach embodies 'bottom up' local development seeking outcomes which integrate economic, social and environmental aims in a rural development context. The LEADER methodology requires the formation of a multi-sectoral, multi-interest Local Action Group which devises a local development strategy and then receives funding on the basis of the strategy, which is used to support a range of local projects. The arguments to support this kind of intervention tend to emphasise its relative value for money, in that the approach appears to have proven ability to animate and stimulate positive development at the very local level in response to what are often relatively modest investments of public funding. More evidence on the cost-effectiveness of LEADER was discussed in section 4 of this study report.

5.1.2.4. Natural and cultural capital

Description
Natural capital consists of *abiotic* (non-living) natural resources such as geology, topography, soils, water and clean air, along with *biotic* (living) plant and animal biodiversity, as well as the natural component of landscape (which commonly includes both biotic and abiotic attributes). The greenhouse gas content of the atmosphere is a "global" form of *abiotic* natural capital, whose status is significantly affected by the activities of *biotic* natural capital, of which human beings are a major component. However, in most discussions of natural capital, the human element in the *biotic* resource is commonly excluded, so as to avoid confusion and overlap with human and social capital (see above).

The role of natural capital in much of rural development is obvious: for example, fertile soil for agricultural production, and attractive landscapes and biodiversity for tourism. However, natural capital is also important for attracting or retaining rural population, which is of increasing relevance as physical and electronic communications improve, and real incomes rise. The process of counter-urbanisation is encouraged by people's desire to live and even work in attractive, high quality and biodiverse rural environments, and this process often brings human capital into rural areas (Courtney *et al*., 2006).

Many economic and social development processes have significant impacts upon natural capital. On the one hand, a longstanding co-evolution of primary production systems (farming and forest management) with natural environmental systems has generated and sustained a rich diversity of natural capital across much of rural Europe. The range of biodiversity and ecosystem services that we currently enjoy in the EU is partly a product of this synergistic relationship between economic activity and environmental capital (Baldock et al, 2002). On the other hand, intensive agriculture has been widely identified as an important source of pollution and environmental degradation, which may reduce productive potential in agriculture or forestry and negatively affect quality of life or economic potential in other sectors. Similarly, over-intensive or badly managed leisure facilities can degrade the environment, damaging the basis of their original attraction. Extensive rural housing brings with it unavoidably higher costs of public services, from waste management to health and education, and can significantly alter rural landscapes. The provision of transport and other infrastructure in rural areas, the generation of energy from rural resources through wind or hydro-power, and harnessing of rural water resources to supply urban and rural populations, have all been causes of significant damage.

In the context of rural development activities, human and social capital combine with natural capital to generate and renew a range of unique local assets (e.g. specific management practices, cultures, traditions, artefacts and activities) which can be termed 'cultural capital'.

These cultural assets, and the interplay between them, can be an essential element in defining rural 'place', and what this means to different people. The sense of place experienced and valued by people who live and work in rural areas may be built upon elements of local custom, tradition and links with the land or other natural features of an area (Hamilton, 2007). Thus it is distinct from natural capital because it embodies the interaction of people with nature, and thereby involves the creation of unique rural characteristics which depend upon the precise nature of this interaction, over many centuries and in different contexts. Such characteristics include traditional activities and events, symbols and language associated with particular locations, as well as historical and literary associations. In many parts of Europe, these cultural characteristics may be as important, or more important as the natural features of specific territories, in respect of their potential to generate rural economic returns.

Cultural capital is a major asset for the successful development of rural tourism, in which it often provides many of the attractions that visitors come to enjoy. The rural landscape is a key component of cultural capital that results from the long-established interplay of human, social and natural capital across most of rural Europe, and which provides an enduring attraction for economic activity and for rural quality of life.

Rationale for intervention

Negative trends in respect of natural capital mostly arise as a consequence of environmental externalities: that is, the market system of property ownership fails to deal adequately with the preservation, provision and/or use of natural capital, because of an inability either to charge for potential benefits such as the delivery of "public goods" to others, or to require compensation for the costs imposed on others. In respect of many kinds of environmental capital it can be difficult to identify the sources of costs and benefits (e.g. pollution, wildlife), in order to address negative trends. In many cases there would be excessive transaction costs in setting up and operating pricing and charging systems which could properly reflect the "resource costs" of natural capital.

There is also market failure in this area because the production, preservation and sustainable use of natural capital frequently involves the generation or existence of public goods (with the properties of jointness in production, and/or non-excludability in use) whose value is therefore insufficiently represented in commercial markets.

Like natural capital, cultural capital is often a joint product with certain kinds of economic activity, but can seldom be effectively traded or treated as a consumption good. Thus, it can suffer from the classic under-valuing and/or under-provision problems which affect all 'public goods', in the pure economic sense. Like many kinds of social capital, the actions which perpetuate cultural capital arise from a complex mix of economic and non-economic motivations, and their benefits are largely qualitative. They are often a focus of voluntary, non-commercial provision and thus form part of the 'social economy' that is increasingly being recognised as an important facet of community and society wellbeing, operating in parallel with the commercial (market) economy.

Objectives of intervention

Intervention generally aims to encourage the protection and, where appropriate, the enhancement of natural capital which can form the basis of viable rural livelihoods and a reasonable quality of life for rural people, as well as maintaining natural assets and ecosystem services for the wider benefit of society at large. From a policy perspective, intervention can also seek to support or enhance cultural capital, particularly where it is threatened by economic pressures and market developments which do not recognise its value to the wider community.

The negative impacts upon biodiversity, soils, water, air and landscape of large-scale industrial agriculture are well documented in many areas of rural Europe (Baldock *et al,* 2002). In addition, the way in which marginalisation and a decline in active management in the most remote rural areas has threatened the survival of these assets, in recent decades, is also extensively documented in the research literature (e.g. ibid, IEEP, 1993). Policy has supported the revival and maintenance of longstanding and valued natural and cultural rural assets, including habitats, landscapes, traditional events and craft skills in recognition of their intrinsic value and their potential for use in economic development. Intervention that helps mobilise cultural capital in sustainable development by improving information and communications, building local capacity for entrepreneurship and addressing transaction costs which hinder such action, can all be targeted to the appreciation and preservation of cultural assets and traditions.

Main delivery approaches and actors involved
Given the multitude of different types and qualities of natural capital, and their varied and often intricate links to productive systems (i.e. joint production), markets, property rights, and existing state interventions e.g. for agriculture, the design and implementation of RD policy instruments for natural capital has proven highly complex.

The 1986 Single European Act included three new Articles (nos. 130R, 130S and 130T) which permit the Community "*to preserve, protect and improve the quality of the environment, to contribute towards protecting human health, and to ensure a prudent and rational utilization of natural resources.* The Act specifies that the Community can only intervene in environmental matters when this action can be attained better at Community level than at the level of the individual Member States (subsidiarity), and it has led to a number of important EU instruments, such as the Habitats Directive, Environmental Impact Assessment Directive and Water Framework Directive.

In terms of EU policy for agriculture (which is a specific Community-level “competence”), the 1980s saw the introduction of voluntary agri-environment instruments. The 1992 MacSharry reforms consolidated these instruments into compulsory (for states) “accompanying measures” and the Agenda 2000 reforms continued this approach. Environmental cross-compliance on CAP support was introduced on a voluntary basis in the 1992 reforms, but it was not widely used until 2000, when it became compulsory as a principle, although subject to national decisions about what it should entail. The 2003 CAP reforms introduced compulsory environmental (and other) “cross-compliance” requirements to accompany partially and fully decoupled support under pillar 1 in the EU-15, and now this has been extended to the New Member States.

In parallel to these developments within the CAP, structural fund policies have also enabled a degree of investment in environmental protection, although usually this activity has been focused principally on strengthening public environmental services in urban areas (e.g. water treatment, pollution abatement). In addition, Community Initiatives have included a significant element of environmental funding within their integrated approaches, and in the rural sphere this includes notably LEADER, and Interreg.

Under the RDR 1257/99, certain Member States used investment and training measures which had hitherto been associated largely with economic objectives, for environmental purposes. The measures funded investment in environmental technology and training in environmental management, for farmers. This pattern continues under the EAFRD. In addition, with

enlargement in 2004, an additional tool for rural development was introduced – the 'meeting standards' measure, designed to help farmers in MS to adjust to the implementation of new EU environmental standards.

Within rural development policies, significant resources have also been devoted to the Less Favoured Area measure, originally aimed at maintaining farming activity and viability in areas affected by natural and socio-economic 'handicaps' which reduced their productive and commercial potential. In 2000, the environmental purpose of the aids was strengthened and the social purpose made subsidiary to this.

One further area of EU policy which is relevant to the protection and enhancement of natural and cultural capital, is the support for afforestation and forest management. These were added to the policy following the 1992 CAP reforms and have since grown in diversity and resource allocation. Whilst it is in theory possible to fund forestry purely for competitiveness reasons, in practice environmental goals are often a key driver. Due to the Helsinki accord and the EU Forestry Strategy, Forestry is a particular area of RD policy where competitiveness and environmental management are closely integrated.

Looking ahead, there is scope for the RD framework to incorporate a greater element of environmental purpose than it has, to date. In particular, the Healthcheck has suggested that support for climate change mitigation through land use change; for renewable energy production and generation in rural areas; and for enhanced water conservation, could become more important in future.

5.1.3 Conclusions and refinement of the typology

We can generate a list of RD interventions classified by the *types of capital and related needs or opportunities* that they seek to address, considered in respect of the *overarching EU goals for RD*, as set out in the Strategic Guidelines and with reference to Lisbon and Göteborg. It should be noted that at this stage, we make no attempt to limit the consideration to the kinds of intervention in Pillar 2 of the CAP. Our aim is to capture the broadest range of possible interventions.

Goal 1: Improving growth and competitiveness

Interventions for physical capital:

1. providing physical capital in respect of *the necessary public infrastructure for rural business growth and development;*
2. *targeted support for private physical capital in areas and situations with greatest additionality, and where long-term and public benefits are likely* to be closely associated with successful private sector business activity; this would include *capital to enable innovation* in the pursuit of truly sustainable development which generates economic, social and environmental benefits simultaneously.

Interventions for financial capital:

3. providing *access to financial capital (credits and/or loans) particularly to those groups or sectors facing significant transaction costs (eg innovators, micro-businesses), or subject to under-valuing of their assets* in respect of the opportunities to obtain finance through conventional market outlets.

Interventions for human capital:

4. support for enhancing the *skills and aptitudes* of rural actors to enable them to contribute more fully to successful economic development (these could be entrepreneurial, innovative, technical or managerial);
5. support to *maintain rural labour* by providing attractive and accessible living and working opportunities in rural areas, and facilitating inter-generational renewal, in key sectors (this clearly overlaps with interventions under goals 2 and 3).

Interventions for social capital:

6. facilitating the *generation and survival of within and between-sector economic networks and action groups* to stimulate rural innovation and new entrepreneurial activity, and to sustain valuable cultural and social traditions with economic potential, where these are in decline.

Interventions for natural and cultural capital:

7. *New environmental economy* - stimulating new ways to create and maintain economic activities for the sustainable management and mobilisation of natural and cultural resources; adding value and exploiting new market opportunities for products and services involving sustainable management of natural and cultural resources.

Goal 2: Environmental sustainability

Interventions for physical capital:

8. Providing *adequate public infrastructure to enable or sustain natural resource management (collective waste composting, renewable rural energy, water conservation, treatment, recycling)*
9. *Restricting physical development* where this will have an unacceptable negative impact upon environmental sustainability (i.e projects with environmental costs that outweigh the benefits to society)

Interventions for financial capital:

10. resources to enable the development of innovative approaches – credits, grants or loans for beneficiaries to *research and develop new environmental economies* (recycling, energy saving, alternative and renewable energy generation and transport, organic or permaculture agricultures, etc)

Interventions for human capital:

11. *knowledge, training and skills development in the principles and practices to sustain the quality and availability of ecosystem services and natural capital*;
12. managing broader economic development so as *to minimise the negative* impacts *of population growth or decline* on the natural environment

Interventions for social capital:

13. *promoting broader collective rural environmental appreciation and understanding*, both for rural populations and for wider civil society;
14. supporting *collective actions and networks which directly manage natural rural resources* in sustainable ways, for wider public benefit – these may be commercial or voluntary.

Interventions for natural and cultural capital:

15. *protecting and enhancing the stock* of biodiversity, water, soils and air situated in rural areas or influenced by rural actions, against prevailing trends or threats;
16. *ensuring the continued functioning of ecosystem services* in rural areas which benefit wider society (e.g. hydrological, climate-related);
17. Supporting *rural resource management for climate change mitigation* whilst respecting other environmental assets at the same time (appropriate renewable energy production, livestock extensification, peatland and forest preservation and expansion)

18. Supporting *maintenance and enhancement of valued landscapes and features* of historic and cultural importance in rural areas, through active and sensitive management, where this cannot (yet) be achieved through commercial activity.

Clearly, point 7 above will also be an important contributory intervention.

Goal 3: Rural diversity and quality of life

Interventions for physical capital:

19. *providing basic services to ensure that all rural residents have a reasonable level of access*, even in the most remote areas, where the private sector will not provide (this could be done via public or voluntary sector providers)
20. *creating and maintaining public meeting-places, multi-use buildings and leisure spaces in rural areas.*

Interventions for financial capital:

21. Supporting *local schemes which seek to retain rural control and influence over the flows of finance in respect of rural resource use and management, as a means of improving governance* and involvement in sustainable development actions (e.g. local trading and currency schemes).

Interventions for human capital:

22. supporting provision of *education, training, lifelong learning (also continuing professional development – CPD)* in rural areas, which increase opportunities and enjoyment for rural residents, entrepreneurs and workers;
23. Providing adequate *information and self-help advisory support for health and welfare in rural areas, to address rural disadvantage* by comparison with levels of provision in urban areas

Interventions for social capital:

24. *maintenance and enhancement of rural groups, networks and social interactions to reduce social exclusion*
25. Supporting *voluntary and collective provision of support for disadvantaged groups*, including the elderly, young people and children, to increase their access to opportunities for enhanced quality of life. This could include *labour/carer share or exchange schemes* (childcare, relief milking, house-sitting) to increase access to education or training opportunities

Interventions for natural and cultural capital:

26. funding local activities and events which *raise awareness and celebrate the unique and valued natural and cultural assets* and features of rural areas, providing *opportunities for rural and urban people to experience enjoyment* of rural natural and cultural assets in sustainable ways.

This exercise has generated 26 different roles of policy intervention, organised around a typology combining the three main goals of RD and the five main categories of rural capital. Together, the typology seeks to capture the range of policy interventions that are likely to be appropriate for rural development in Europe.

5.3 Development of a catalogue of RD instruments

5.3.1. Objectives

The aims of this exercise are:

- to assemble a framework that will enable us to critically assess the range of existing and possible RD instruments;
- to develop a catalogue of instruments for this purpose, working from the typology of interventions identified in subtask 5.1.

Because the catalogue needs to be appropriate to the EU-27, it should be free from historical or political constraint, and it needs to cover all areas of the strategic guidelines. In addition, it is necessary to produce a list that is *relatively independent* of the delivery context within which the instruments apply.

5.3.2 Considering potential RD policy instruments

The broadest approach in economic and policy literature tends to divide policy instruments into:

- Regulatory instruments – ie those affecting property rights (prohibitions, creation of new rights of use or access);
- Economic instruments – ie policies which affect the relative costs and benefits of individuals choosing to take certain actions (incentives, disincentives);
- Information or advisory instruments – those which enable people to make better decisions, on the basis of a fuller understanding of issues or situations.

The category 'economic instruments' can be further subdivided into:

- *positive* instruments (incentives or rewards) – eg payments (one-off investments, or regular multi-annual payments), loans or loan guarantees, tax breaks or tax offsets;
- *negative* instruments (disincentives) – eg taxes, levies or charges.

In practice, most policies include a combination of these kinds of instrument in one or more 'packages'; for example:

- **regulation** to set a *baseline of acceptable behaviour (also referred to as the 'reference level' - OECD)*, prescribing the limits of what is permissible, and determining sanctions to be applied to those who fail to observe these limits; PLUS
- **economic instruments** *to encourage positive and discourage negative behaviour* above the baseline or within the acceptable limits defined by regulation; PLUS
- **advice and information** to promote understanding of the rationale for the policy, the evidence upon which it is based and other aspects which *increase peoples' willingness to work towards achieving its goals*.

In respect of policies which are defined at the European level, another facet of policy is also relevant – the principle of subsidiarity, and its implications for policy design. Subsidiarity means enabling detailed policy responses to be determined at the most appropriate level within the hierarchy of EU, national, regional and local layers of public governance and administration, to maximise efficiency, effectiveness, transparency and accountability. Thus, policies at higher levels can be designed to effect or facilitate change at lower levels within the policy hierarchy, rather than making these changes directly themselves.

Seen from this viewpoint, EU policy does not commonly seek to dictate all details of how a policy achieves its goals, but rather, it sets a framework of principles, standards and approaches which oblige or encourage national or regional administrations to act. The choice of the precise ingredients in the policy package can therefore be, at least in part, a decision for Member States and/or regions to make, assisted by the framework that exists at the European level.

Rural Development under Pillar 2 of the CAP is an EU policy devised principally as a **financial instrument**, to assist Member States to promote rural development actions and goals throughout their territories. Thus at the EU level, it is not directly concerned with *regulatory* instruments, but with *economic* and *advisory* ones. In rural development interventions, it is possible for governments to seek to regulate – for example, where spatial planning policies prohibit new development in the countryside in order to protect key environmental assets from irreversible loss. It is also possible for them to use the negative economic instruments of taxation, levies or charges in pursuit of RD goals. For example, some Member States tax chemical inputs in farming in order to discourage levels of use that could harm the environment. Local taxes are usually levied on rural businesses in order to fund the maintenance of local collective facilities and services. However, there are constraints upon acceptable actions at EU level in respect of these kinds of instrument, derived from agreed areas of EU competence. European RD policy cannot generally use regulatory instruments, taxes, levies or charges to pursue its aims, nor tax breaks / offsets. The range of instruments available is generally confined to investments or regular payments, loans or loan guarantees, and information and advice.

Nevertheless, the approaches can be applied with respect to different layers in the policy hierarchy, generating a further point of differentiation in the choice of instruments available. The instruments can be used to provide:

- *Direct support* to the 'final beneficiaries', to achieve certain behaviour. These final beneficiaries can be private individuals or groups, as well as public authorities; or
- *Indirect support* which enables other layers of the policy hierarchy to provide an institutional framework to promote RD goals. So, funding can be used to support the application of regulations or negative economic instruments by regional administrations, public agencies or local municipalities. For example, it can help regional authorities to operate regulatory processes in respect of land reforms, purchases or consolidations. The most common example of an indirect economic instrument used in this way is where EU funds support 'technical assistance', which enables national or regional administrations to enhance their capability to deliver a broad range of RD policy goals.

If we view the potential range of appropriate policy instruments including both direct and indirect support, we arrive at four main categories of *European* RD policy instrument:

1. funds for the management of regulatory processes by public bodies which promote RD aims (eg land reform or consolidation)
2. regular payments to deliver goods or services on an ongoing basis, made to private individuals, groups or public authorities (eg targeted income supports, landscape maintenance, biodiversity management, rural transport maintenance, support for village groups or regular events)
3. one-off investment funds, loans or loan guarantees to stimulate actions or projects, offered to private individuals, groups or public authorities (eg modernisation aids for farms, funding for R&D in effective environmental management techniques, support to plan and set up rural tourism networks, technical assistance)

4. funding to provide information or advice to promote RD goals, which can again be given to private individuals, groups or public authorities (eg farm environmental advice, public health information for remote communities, advice on how to plan for successful new rural business ventures).

5.3.3 The Catalogue

The typology generated a list of 26 RD *intervention types*, based upon three key RD goals and five key categories of rural capital. Not all of the four *instrument types* mentioned above will be appropriate for each intervention type, but more than one instrument may be appropriate. Table 5.2 therefore presents a grid, in which policy intervention types define the rows, and instrument choices define the columns. In each cell we have a unique combination of intervention type(s) and instrument. Where it is considered that the instrument is potentially suitable for addressing the intervention type concerned, an example is given in the relevant cell, of how this might apply. Where an instrument cannot really be used to achieve a particular type of intervention, this is noted. In a few cases where different numbered intervention types share common applicability across all instruments, they have been combined, to reduce repetition.

Table 5.2 contains 70 cells for which it is possible to envisage RD instruments. However, the descriptions within the cells are similar in many cases, which reflects how some kinds of instrument could simultaneously be used to address a number of different intervention purposes. Thus the number of instruments required to achieve a complete coverage of the 70 cells is actually 35, as listed below.

Goal: economic competitiveness

Physical and financial capital:

- Land reform, consolidation or purchase to facilitate development and increase viability of holdings (also benefits human capital)
- Rural service schemes to increase access for disadvantaged groups
- Local credit association schemes
- Grants and loans to public authorities to develop rural infrastructure
- Grants and loans to private agents to develop new infrastructure and facilities – particularly targeting sectors and issues of greatest additionality or public goods
- Advice and information to support effective application of these in RD activity, including mentoring, IT information, how to develop financial schemes.

Human and social capital:

- Support for professional development of entrepreneurs and resource managers
- Set-up and investment costs for training, advice, local and applied R&D (including demonstration), mentoring and other support services
- Support for young farmer instalment and early retirement, where additionality is clear
- LFA aid compensating for remoteness and retaining management skills
- Succession planning advice and support
- Setting up groups for innovation, planning and R&D to support their work
- Management and networking for established groups if private funding is not viable.

Natural and cultural capital

- New environmental economy investments in land purchase or lease, energy crops/renewables technology investments and market research, group events and training or mentoring to promote entrepreneurial actions.

- Regular payments to support rural renewable energy generation and waste collection for composting, and other environmentally-sensitive entrepreneurial activity which is not (yet) fully covering costs.
- Advice on good practice and innovation.

Goal: environmental sustainability in land use

Physical and financial capital

- Land purchase or lease to enable nature conservation
- Support groups to stimulate more effective environmental management planning and target capital funding to where it delivers greatest benefit.

Human and social capital

- Aid to establish networks and multi-sector groups to promote sustainable methods
- Aid for new skills training and ongoing support for skill retention and development, for enhanced environmental performance.
- Funding for advisor and farmer training courses, planning and provision of events
- Regular and/or investment funds for certification schemes, to raise environmental standards
- Advice and information on good practice in raising environmental awareness and understanding among rural consumers and civil society.

Natural and cultural capital

- Management of environmental and cultural assets with high public goods value.
- Energy conservation, recycling, composting, sustainable water management, small-scale combined heat and power generation from wastes and other LA 21 activities at the level of municipalities
- Climate change strategies and programmes of work including land purchase (peat) for carbon storage, payments for mitigation-centred management activities, investment in more beneficial technologies and training.

Goal: Diversification of the rural economy and quality of life

Physical and financial capital

- Aid to purchase land for public infrastructure provision
- Aid to help community groups and non-profit partnerships to develop communal facilities for trading, communication and multi-purpose leisure activities
- Support for research to monitor local economic flows under different governance arrangements (to identify how best to increase endogenous growth potential)
- Aid for initiatives to reduce financial leakages from rural economies and/or establish local credit or trading schemes to encourage rural entrepreneurship.

Human and social capital

- training, advice and demonstration to increase employment and entrepreneurial skills
- Support for community groups targeting social exclusion in rural settlements.

Natural and cultural capital

- Aid to develop (investment) and then maintain (regular payments) events or traditions with cultural and environmental significance and celebration at their core.

Cross-cutting instruments

- Support to establish LEADER and LEADER-like local strategic partnerships using bottom up and participatory methods
- Support for cross-instrument and cross-sectoral, inter-territorial co-operation and networking for rural sustainable development best practice.

Table 5.2 Grid to identify RD instruments

Goal & Capital	RD purpose	Regulatory process	Regular (multi-annual) Payments	Investment payments and loans	Information / advice
1:P	1. Public infrastructure for economic development	Yes – land reform / consolidation or purchase to facilitate development / enhancement	Yes – rural service voucher schemes for disadvantaged groups, subsidised provision in most remote areas	Yes – grants/ loans to public authorities to develop rural infrastructure, grants/ loans to private bodies to set up self-financing infrastructure (if possible)	Yes – advice on how to access available infrastructure (eg ICT), for disadvantaged groups
1: P	2. Private physical capital for competitiveness, adding value, developing new products	Yes – land consolidation to increase the viability of individual landholdings	No – unlikely to require ongoing, regular funding	Yes – grants and loans to help private individuals and groups to develop new facilities, acquire equipment, particularly for targeted sectors/groups facing barriers to accessing private funds	No – no obvious advice needs, although could fund promotion of awareness of grants and loans
1:F	3. Access to finance for entrepreneurs	No – no obvious property rights issues	Yes – funding for the organisation and running of local credit associations	Yes – funding to plan and set-up local credit associations or local venture capital schemes and networks	Yes – advice on sources of match funding for grants and loans, advice on setting up local credit and trading schemes
1: H	4. Skills for competitiveness	No – no obvious property rights issues	Yes – CPD support payments	Yes – course planning and provision, technical equipment for effective training (e.g. processing equipment for value-added courses, IT for distance learning)	Yes – advice on who can provide what, mentoring
1: H	5. Maintain rural labour and facilitate generation renewal	Yes – to regroup farm holdings to retain viability	Yes – for social and cultural goods, compensating natural handicap / remoteness, early retirement	Yes – support to assist installation of young farmers (though this could also come under purpose 2 or 3)	Yes – could fund advice and support services to help manage succession
1: S	6. New groups to stimulate innovation, sustaining groups with USP value	No – no relevant property rights issues	Yes – Management costs for groups, networking and collaboration	Yes – for R&D, planning, group events, experiments	Yes – advice on group establishment and management
1: NC	7. New environmental economy	Yes – land purchase for demonstration / experiment	Yes – Energy crops or renewables incentives (infant industry),	Yes – for R&D, planning, market research, new equipment or buildings, training staff, promotional	Yes – advice on successful business establishment and

			subsidised collection costs (rurality)	events	growth, mentoring
2. P	8. Public infrastructure for environmental management	Yes – land purchase to provide communal facilities (recycling, energy)	Not clear where this offers EU additionality beyond general rural public service funding by MS/region/local	Yes – support to set up necessary cross-sectoral, multi-actor groups, R&D, planning, facilitation and new equipment	Yes – advice on good practice, sharing of successful examples, networks
2. P	9. Restricting development to protect the environment	Not applicable – done via EU environmental legislation	Yes- compensation paid regularly to those subject to development restrictions	Yes – can fund surveys and plans which enable this to be achieved through local regulatory processes	Yes – could fund advice and awareness-raising of regulations
2. F	10. Finance for novel local environmental research and development, experiments	No – no obvious property rights issues	No – difficult to see how regular payment for finance services could give additionality	Yes – support for planning and setting up investor search (venture capital) and client matching services, support for setting up local credit schemes	Yes – promotion of good practice examples, advice on setting up credit schemes, mentoring
2. H	11 Skills for environmental sustainability	No – no obvious property rights issues	Yes – ongoing funding to maintain skills and promote inter-generation knowledge transfer	Yes – funding for land manager and advisor training courses, planning and provision of events, demonstrations, etc	Yes – direct provision of environmental advisory services, demonstrations
2. H	12. minimising environmental damage from population change	Not applicable – spatial planning issue	Yes - payments to maintain environment, to retain managers	Yes – overlaps with goal 3 (see below, purposes 24-5)	Yes - Providing guidance and information to planning authorities
2. S	13. Collective environmental awareness and understanding	Yes – creating local standards and certification schemes	Yes – ongoing funding to those providing these services on a non-profit basis	Yes – support to set up groups and to provide specific events or campaigns	Yes – promotion of good practice examples of successful initiatives
2. S	14. Collective environmental management	Yes – land consolidation or purchase to facilitate collective management arrangements	Yes – fund ongoing management of valued features in the local environment, recycling schemes, etc. where these cannot be self-funding	Yes – support for setting up groups, R&D, planning, equipment, hosting events, setting up infrastructure to manage water and soils more sustainably, participatory landscape planning, village design	Yes –advice on how to set up formal groups, best practice exchange, mentoring by established groups
2. NC	15, 16 and 17. Protecting	Yes – land consolidation or	Yes – funding sensitive maintenance /	Yes – support for R&D, capital investments for restoration works,	Yes – information to raise awareness of

	environmental and cultural resources (both stocks and ecosystem services)	purchase to protect areas from development or set up governance regimes (land trusts, covenants)	management on an ongoing basis where this is not fully commercially viable	creation of new habitat or landscape features,	valuable assets and their roles, good practice examples of win-win situations, water efficiency and flood avoidance
2. NC	18. Climate change adaptation and mitigation	Yes – land purchase / reform to protect carbon stores, provide 'sacrificial' areas to manage flooding (new wetlands)	Yes – payments for carbon sequestration / flood mitigation services, subsidised recycling or renewable energy use or generation	Yes – support for R&D, planning and investment in start-up and processing equipment for renewable energies/energy-efficient rural technology and infrastructure, recycling schemes and waste minimisation	Yes – advice and information to rural dwellers on low carbon lifestyles, to public authorities and private businesses on reducing impacts
3. P	19 and 20. Physical capital for basic rural services, and support for local communal facilities	Yes – land purchase or consolidation to facilitate infrastructure, Community facilities	Yes – but only where EU funding offers additionality and value for money over existing MS/region /local service funding from taxation	Yes – funding for village halls, multi-use spaces, conversion / restoration / adaptation of buildings and facilities to new functions e.g. IT equipment, recycling technologies, mobile service provision (libraries, health, post)	Yes – promoting approaches based upon best practice examples
3. F	21. Rural control and governance of financial capital	No – no obvious applications	Yes – Support for monitoring financial flows within the local economy, to assess needs /opportunities for action	Yes – support to set up surveillance groups and initiatives to reduce rural financial leakages, and to set up local trading and credit schemes	Yes – promoting approaches based upon best practice examples
3. H	22. Skills and education for rural quality of life	No – no obvious property rights issues	Yes – support to maintain lifelong learning services in remote/dispersed areas	Yes – support for market research / skills audits, aid to set up new services, acquire specialist equipment (e.g. IT)	Yes – promoting best practice
3. S	23, 24 and 25. Services and groups to overcome social exclusion, improve access to facilities	No – no obvious property rights issues	Yes – payments to subsidise group running and networking costs, support to fund labour/care exchanges	Yes – payments for R&D, to plan, set up groups, employ enablers, experimental approaches to self-help and building social capital, local events, local histories/ archive	Yes –advice on best practice, promotion and advice on how to successfully adopt these models
3. NC	26.celebrating environmental and cultural assets	No obvious property rights issues	Yes – can support regular events / traditions, if no potential for self-financing	Yes – can support background research, planning, one-off events and self-financing ventures	Yes – advice on best practice, promotion of its wider value for SD

5.2.4 Discussion of key points and possible new instruments

It is interesting to make a comparison between this catalogue, the content of the grid cells and the measures currently in the second pillar. This reveals two important points – one concerning the scope for simplification or degree of overlap in the current menu of RD measures, and the other concerning opportunities for new instruments. Both these points are relevant to our study.

Synergies, simplification and/or overlap in measure design
It is clear that the current suite of individual EAFRD measures presents very different degrees of coverage, in respect of the distinct roles identifiable in our catalogue and presented in the cells within table 5.2. Some measures correspond to several cells combined, while others correspond only to a partial coverage of one cell. For example, some of the axis 1 measures, because they are limited to farming and forestry, only address parts of individual cells (e.g. measure 114 - support for young farmers). Others have potential to achieve the aims of more than one cell, and axis 4 has the broadest coverage of all. Among measures with a fairly broad coverage we could include 111 training, 321 village renewal, and 211-4 Less Favoured Area aids.

In some cases it is clear that a multi-purpose instrument is likely to be more efficient and just as effective as a whole series of single purpose ones. This is probably the case in respect of RD information and advice networks, for example. Many of the cells in the right-hand column of the grid can potentially be served by a single instrument promoting best practice examples and offering advice on how to implement successful models or approaches, for different aspects of RD, across a whole programme area or even between programme areas. This is essentially equivalent to role envisaged for the EAFRD's national and European rural development networks. Such networks could deliver most of the roles listed in this column, except advice and information which are locally-specific.

In other cases, there may be good reasons why a combined-purpose, single instrument could lead to less effective performance in respect of either purpose, than a single instrument pursuing only one of these purposes. Consider, for example, a regular payment which seeks simultaneously to sustain rural labour and to promote sensitive environmental management. Ideally a payment to support rural labour should be related to the extent of labour provided by each beneficiary, just as the payment to promote sensitive environmental management should relate to the level of management cost involved in so doing. While labour is one factor in management cost, it is not the only one. If the two purposes are jointly pursued, therefore, there is likely to be a trade-off between effective targeting of the two goals.

So, where current instruments *combine* different cells identified in table 5.2, we should consider whether this offers synergies of effectiveness with potentially greater efficiency, or trade-offs between two qualities which might compromise performance. Similarly, for occasions where *more than one* of the current instruments delivers against a single cell in table 5.2, we should examine whether this leads to potentially overlapping instruments, or whether they each target different kinds of detailed action. This generates ideas for combining or simplifying measures.

Scope for new RD instruments
The combined coverage of existing measures does not correspond to the potential coverage of the full 70 cells in the grid or 35 instruments in the catalogue - gaps are apparent. These tend to concern: areas of the wider economy beyond agriculture and forestry; the potential to do more to tackle key environmental needs and opportunities (particularly climate change);

and some aspects of rural quality of life. Seven new areas where instruments could be envisaged are apparent from the catalogue. These are summarised briefly here.

Supporting and managing collaborative groups and linkages to promote innovation - to cover the ongoing costs of organising and maintaining enabling and facilitating services to support business groups and business mentoring for innovation in rural products and services. This measure could particularly target areas of significant environmental degradation or management decline, or social need (high unemployment, low skills and dependency culture). Eligible beneficiaries could be not-for-profit organisations or local public entities. Aid could be offered for business support services operating to an agreed plan of action with targets for successful group formation, growth in membership and business outcomes.

Rural service access schemes for disadvantaged groups - to enable disadvantaged groups to achieve a fair level of access to infrastructure and services provided by the state or by commercial operators in rural areas (eg telephones, IT, transport services, nurseries or other childcare). Payments could be offered to intermediary, not-for-profit organisations to provide vouchers or other kinds of subsidised approach to disadvantaged individuals in rural areas which could reduce the cost to them of accessing necessary infrastructure and services. Targeting of appropriate beneficiaries could be achieved by working through trusted third party expert providers in the social and voluntary sectors. Payments could be made via intermediary non-profit organisations working to an agreed plan or strategy with the programme authority or groups of local municipalities.

Local Agenda 21 innovation and achievement - to stimulate the setting and attainment of new, higher standards of local recycling, energy efficiency and renewable energy use in order to contribute to climate change mitigation and a more efficient use of natural resources. Support could be given to local municipalities and NGOs working in partnership to set and to deliver against ambitious targets for recycling, energy efficiency and use of renewable energy sources in public and communal buildings and other facilities. Aid could cover planning, equipment, promotional campaigns, redesign of waste and energy facilities, home insulation grants, etc. Funds could be awarded by competitive bidding by municipalities to a central fund held by the programme authority, with funding awarded on the basis of those with a strong and ambitious project plan.

Local credit and local finance provision - to support local farm and non-farm entrepreneurs and communities to access credit, and to operate schemes to capture the financial benefits of RD activities within the local area and minimise 'leakages'. This could probably be made available to communities on demand. A central team could be established by the programme authority with expertise in local credit and local trading schemes, to promote and support the adoption of these kinds of scheme in areas where interest or specific need is identified by local municipalities or commercial groups (farmers, foresters, local traders). The team could offer training, start-up assistance and then ongoing mentoring to those groups who decided to pursue these models, and would promote best practice in their application.

Ecosystem service payments for climate change mitigation and adaptation - to offer payments to land holders and managers to sustainably manage areas of priority for carbon storage or water retention, into the long term, in ways which will not undermine their ecosystem service provision. Priority areas could be defined by the Member States according to common criteria based upon:

- the most important rural resources for carbon storage or water retention,
- degree of threat to, or need to restore, sensitive management to retain these functions
- their potential contribution to mitigate climate change, or help rural populations to adapt.

The measure could require management plans drawn up between environmental agencies and land holders, to secure appropriate management in agreements lasting 10-15 years. The long-term and low intervention nature of such management would distinguish it from existing agri-environment approaches.

Public land purchase for long-term environmental, community and amenity management - to enable municipalities and community groups to purchase land in order to manage and use it for long-term environmental, community and amenity benefits which cannot be guaranteed if the land remains in private or commercial ownership. Support could be offered to not-for-profit community groups or local public bodies to help them to raise funds and offer match funding to purchase land for these purposes and also to provide a modest endowment. The endowment would be necessary to support ongoing management of the areas purchased (to top-up likely available funding from other sources such as community events, local taxes, grazing licence fees, etc). This measure is probably best administered by a specialist agency acting at the level of the programme authority, inviting bids from eligible groups and then helping them to develop and agree plans for how the land would be held, used and management sustained financially, into the future.

Rural lifelong learning - to enable remote municipalities and community groups to identify and organise programmes for lifelong learning, to improve quality of life and foster a culture of self-reliance and collective problem-solving. Support could be offered to partnerships established between education institutions and remote local rural groups or municipalities to develop and operate lifelong learning programmes. These could draw upon the existing skills held by local residents and in the partnerships with further, higher and adult education institutions, using distance learning, IT and other innovative approaches to expand the range of materials and methods available for teaching and learning. Payments could be a mix of investment funds to enable purchase of equipment (IT, visual aids, transportation) and to fund facilitator time, as well as regular funds for building and maintaining on-line library and archive resources, organising events, etc. Such an instrument should probably be administered at the level of the programme authority/main delivery agency, who could invite bids from eligible partnerships and scrutinise and agree action plans and targets. It should be noted that a measure of this kind is currently able to be funded by the ESF, within Structural Fund programmes. However because it is clearly highly relevant to RD goals, we suggest that it should be included within the scope of pillar 2 aids.

5.4. Describing delivery and implementation mechanisms

5.4.1 Objectives of this sub-task

This sub-task aims to find out whether the results of rural development policy can be affected by how the tools designed at the EU level are put into practice. It requires studying:
how the chain of events, which starts from the dissemination of information about a given measure and ends with controls, develops;
the actors involved in each step, their interactions and responsibilities;
the particular legal and institutional context.
All these elements can act either as enabling factors, e.g. facilitating access to information, improving the quality of applications, decreasing payment delays, etc., or as hindering factors, e.g. unnecessarily increasing the complexity of procedures.

This analysis is based on a detailed examination of experience in selected case studies, with the aim of finding evidence about the following aspects:
how funds are channelled from the central / regional administrations to beneficiaries, and which supporting resources are used;
which approaches are used to identify recipients of aid (e.g. direct applications, or indirect through intermediary bodies; first-come, first-served or competitive);
which features of the institutional framework are likely to affect delivery;
procedures and selection criteria for applications or cases for support;
what monitoring and controls have been established (checking and enforcement).

5.4.2 The choice of case studies

Ten case studies were selected both among EU countries (including new Member States) and outside the EU (Niger). The cases include both single measures (such as agri-environment payments or compensation for less-favoured areas) and integrated measures (such as integrated projects or Leader approaches), and cover examples of measures from all the four axes of RD policy. The analysis looked at measures already implemented, to provide actual experience of how delivery has operated. For EU measures it covered implementation during the previous programming period (2000-06 for EU-15, 2004-6 for new MS). Table 5.3 classifies the case studies, indicating their nature (single/integrated) and the type of intervention pursued (modernisation, environmental management, quality of life, and Leader).

6 cases cover measures under Regulation 1257/1999, and 4 do not, namely:
- LUCOP (Niger), funded by the Ministry of Economy and Finances of Niger and co-funded by the German Technical cooperation, a development bank and the German Development Service;
- Regionen Aktiv (Germany), entirely funded by the German Ministry of Consumer Protection, Food and Agriculture;
- Leader + and Proder 2 (Andalucía, Spain), a case of integration of EAGGF, Structural Funds and national co-financing;
- Village Renewal Programme (Slovak Republic), funded by the national government through the Ministry of Environment.

Table 5.3. Case studies according to the nature and type of intervention

Type of intervention	**Single measures**	Integrated measures
Modernisation measures	Rural Enterprise Scheme, Processing and Marketing Grants, Vocational Training Scheme (Cumbria, UK)**	LUCOP – Lutte contre la pauvreté Tillabéri et Tahoua Nord (Niger) Integrated Plans for the Food-chain (Calabria, Italy) Regionen Aktiv (Germany)*
Land management measures	Less Favoured Areas (Catalonia, Spain) Agro-environmental schemes (Slovak Republic)	Agri-environment measures – Contrat Territorial d'Exploitation, Contrat d'Agriculture Durable (Basse-Normandie, France) Regionen Aktiv (Germany)*
Diversification and quality of life, Leader	Village renewal programme (Slovak Republic)	Leader + (Czech Republic) Leader + and Proder 2 (Andalucía, Spain)
Total cases	**5**	**5**

*The Regionen Aktiv programme is mentioned both under Modernisation measures and Land management measures because it can include measures related to both areas (e.g. entrepreneurial investments, infrastructural investments, vocational training and consulting, agro-environmental measures).

** while the RES scheme in England included measures for diversification and quality of life as well as modernisation, the focus of this case study was upon the element within the scheme which would fall within axis 1, under the EAFRD framework.

A questionnaire was prepared and used by the project team in interviews with agents, stakeholders, national and regional officials. Literature review was used to re-construct the planned implementation path and obtain information on the assessment of the measure. In particular, the following sources were used:

- programming documents 2000-2006 (EU-15) or 2004-06 (new MS);
- intermediate (programme) or project evaluations and related documents;
- other official publications aimed at providing information to potential beneficiaries (e.g. calls for tender, promotional brochures, etc.);
- reports and documents about the institutional framework and internal structure of the public administrations responsible for the programmes.

The information collected was classified according to its relevance to explaining the success or failure of the various phases of delivery. Key issues cover, in particular:

- dissemination of information and awareness raising;
- preparation and selection of applications;
- implementation of projects: payment; monitoring and control systems.

In addition, information concerning the results of the projects and possible feedback into programme design was gathered.

5.4.3. Recent changes in policy delivery at the EU level

The recent reform of the second pillar of the CAP to create the EAFRD framework (see section 1), increased significantly the degree of subsidiarity in the definition of rural development policies at national/regional level. This can be seen as one of the most significant changes in the EU framework, together with other changes (simplification, strategic programming, mainstreaming of the LEADER approach, etc.) Considered as a

whole, these changes have contributed to a redefinition of the roles of the major institutional actors involved in programming and implementation, both at the “macro” level (the programme) and at the “micro” level (single measure).

The European Commission has a major role in defining the main priorities of EU rural development policies, establishing minimum thresholds of resources for each priority and defining a common framework for RD policy monitoring and evaluation. On the other hand, Member States benefit from greater flexibility (c.f. 2000–06) in the available methods of implementation at programme and measure level. The main changes in the conditions of implementation are firstly, greater flexibility in the financial plan (now defined at the Axis level) and secondly, the ability to shift funds between measures within an axis without prior formal EC approval Art. 71 (2 and 3) and art. 78 (a) emphasise the role of the Managing Authority and Monitoring Committee (at programme level) in establishing the rules on eligibility of expenditures and selection criteria, for all measures. Therefore, in respect of a number of individual measures, the conditions of implementation are now broader.

5.4.4 A typology of policy delivery.

In the debate concerning RD delivery systems a dichotomy prevails. There is *a centralised model*, where policies, programmes, and rules of implementation are designed and applied by the State and central administrations; and a *de-centralised model*, where most competences are devolved to regions and local institutions who become the main actors delivering support. This dichotomy, in our view, seems to over-simplify the different delivery systems in the EU countries. We can distinguish at least three types of delivery: centrally-based delivery; mixed delivery; and locally-based delivery. The first type (“centrally-based”) is the most traditional approach and is common in countries where RD policies are designed and implemented by central Ministries/Departments dealing with sectoral competences. Here, most functions in providing public funds to beneficiaries are concentrated in the national administration and local offices (at regional, county, or multi-communal level). The local offices work with rules and protocols set by the national/central administration, selecting eligible applications and sometimes providing information to applicants on the use of national schemes. The decision to approve and fund applications is given by national / central administrations. Another common characteristic of this model is providing public support on demand from private and public sectors, without actively seeking to target aid to influence the pattern of uptake in line with particular needs and/or strategies.

> “ In this respect, the Rural Development Service was recognised as being more about delivering funds rather than actively running a rural developmental programme”
>
> *(England case study-Cumbria)*

It is clear from the case studies that this system can lead to rigidities and inadequacies in schemes which, in turn, are reflected in delays in implementation, low spending efficiency and lack of effectiveness, by comparison with alternatives.

The second model is similar to the previous one as regards the allocation of decision-making competence (funding is still concentrated from the centre). However, there is much more flexibility in implementation of the schemes and measures, and more opportunities at the local level to adapt these schemes and measures according to local needs and potential. Delivery competences are more evenly distributed between the centre and the local level. Flexibility also means the possibility to vary funding allocations among measures and within a single measure, across territories. The CTE case study in France represents an example of this model:

> " The National Ministry of Agriculture has set up the legal framework for AE implementation, as well as national list of measures to be implemented through the CTE and CAD (Contrat d'Agriculture Durable). All these details are set out in the NRDP document. The local agricultural administration, the "Direction Départementale de l'Agriculture et des Forets » (DDAF) is responsible for AE delivery at the département level and is in charge of the whole delivery process from the application through to control. Under the CTE each département competed for funding from a national pot. This led to the départements attempting to approve applications as quickly as possible in order to secure funding, meaning more complex applications were left to one side. With the switch to CADs budgets were reallocated to the département, removing the need to compete for funds at national level and meaning the département has greater control over the approval of payments".
>
> *[Case study on AE measures, Basse-Normandie, France].*

The third model of delivery differs radically from the previous ones:
a) fund management is taken on by local agencies;
b) local agencies very often take the form of partnerships made up of local actors;
c) they are responsible for the design and implementation of the measures selected;
d) in the delivery process, local agencies perform a set of complex functions (technical advice, research and analysis of needs, information, animation, selection of applications, etc.) which are not performed or are performed by different actors and/or non-local institutions, in the other models. Some interviewees clearly saw the differences between these models of delivery:

> " The Rural Development Service (RDS), especially at the beginning were operating at a distance from the implementation of the schemes and there was a sense that they were simply distributing the grant monies but were not inclined to help applicants access it. The idea was that they were « a grant funding programme: no more and no less, and meetings tended to be about process and rules of engagement» rather than identifying a wider strategy for the schemes' dissemination. This was compared, unfavourably, with Leader, who were acknowledged to be very good at enabling people to access the money available. The RDS were seen as being reactive, whereas Leader were much more proactive in their approach."
>
> *[Case study-Cumbria, England]*

In this third model, the role of the region as an administrative and programming entity is usually assumed as very important, because in most cases the presence of the regions in policy delivery is identified with the decentralised approach. The great part of literature on the analysis of cohesion policies assumes a dichotomy between central State and Regions as one key factor in the potential and effectiveness of EU policies. In our view, the presence of the regional administration in delivery is not a necessary or sufficient ingredient in locally-based delivery. The case study of Regionen Aktiv in Germany illustrates this point.

> " Regionen Aktiv represented a break from traditional methods of delivering agricultural and rural development policy in Germany. The main innovations were the delegation of budgets and decision-making to the micro-regional level, albeit within a framework set by BMVEL [German Federal Ministry of Consumer protection, Food and Agriculture].... they by-passed the governments of the Länder, even though they have principal responsibility for rural development. It was thought that the Länder would not be sympathetic and would block the programme.....Fourthly, the regions were self-defined rather than necessarily based upon existing administrative boundaries. This increased

the chance of identification with the regions, although it produced a few difficulties with co-ordination where regions crossed administrative boundaries."

[Case study Regionen Aktiv, Germany]

5.4.5 Main relations between delivery and policy efficiency/effectiveness

The delivery system can be described as a complex set of rules, instruments and actors which influence the way public aid is provided to final beneficiaries. It includes:

- The legal framework for public intervention;
- Implementation procedures;
- administrative structures and their organisation (involved both in design and implementation phases) ;
- local actors and agencies intervening in the process (role and functions).

Thus, delivery does not simply mean 'providing money to farmers'; it embraces a lot of institutional and social meanings which should be taken into account. Information collected through case studies allows us to reflect upon the relations between the type of delivery and policy efficiency and effectiveness. In the following paragraphs we describe how main aspects influence performance, on the basis of the case studies and comparative analyses in some EU countries.

5.4.5.1. The legal framework of public interventions

Within this field, key factors include: the design of measures; and the eligibility criteria for access to single measures. The proper and consistent design of a measure is crucial for concrete implementation. In the Cumbria case study (primarily measures for the competitiveness and successful adaptation of agriculture) there was excessive prescription in the schemes in terms of the range of eligible activities. The consequent lack of flexibility led to potentially very good projects not fitting exactly into the boundaries of the scheme and therefore failing to secure funding. In the CTE case study (Basse Normandie, France) the scope of the CTE was seen as too restrictive by farmers, compared with the needs of their farm business. But the CTE, especially at the beginning of implementation was seen as an over-complicated scheme: with over 800 possible measures; considerable time and effort was required by local advisers to determine the content of an individual contract. Despite the large number of measures, there was also a lack of flexibility in respect of adaptation to the individual context of the beneficiary (Basse-Normandie, France). The design of the measures was therefore very critical and it initially introduced too much complexity in the scheme, which hampered effectiveness at the start of the implementation phase.

Sometimes, the problem in designing the scheme is just the opposite, as in the case of the eligibility criteria for our LFA case study in Spain. There, the design of the scheme, in terms of the classification criteria for LFA, is too wide, resulting in 79% of the Spanish territory being eligible for aid and thus the measure is not targeting areas most in need. In this case even the established compensation is overly complex and non-transparent; the criteria used for calculation are not adequate and can lead to under or over-compensation [LFA case study, Spain]. Some elegibility criteria produced distorted effects: the selection of LFA payments in Spain acts in a way such that funds delivered do not necessarily reach those most in need of support. This was because at least 50% of income has to come from farming activities; there was a requirement to reside "in the same or neighbouring municipality" as the

land being claimed upon; and finally also requiring the “legal registration as an individual, member of an Agrarian Society” (LFA case study, Spain).

5.4.5.2. Implementation procedures

These represent the operative side of the programme and cover:

- providing information;
- preparation of applications;
- selection of projects and beneficiaries;
- financial procedures, payment system, control and monitoring.

Providing information.
Information is a key factor for access to delivery among the potential beneficiaries. In some circumstances lack of information hampered the use of existing schemes. In the Cumbria case study, at the beginning bad communication to applicants about measures, fund availability and selection criteria created serious difficulties. In the agri-environment scheme in Slovakia there were initial problems with access to information because of the lack of printed documents about the scheme. In general the concept of providing information is identified in most contexts with communication and with the proper means of communication. In some case studies (e.g. Cumbria) it was noted that good communication has to be pursued not only through publicity, but also through outreach and animation. This idea is more familiar within LEADER and other local approaches (e.g. Regionen Aktiv, Food-chain projects in Calabria).

Preparation of applications.
In this field most of the critical factors relate to relative complexity of procedures and the assistance given to preparing applications. In the Cumbria case study, the complexity of application procedures prevented smaller projects from applying and generated a high rate of application failure. There was also insufficient assistance to proposal preparation. The same problem occurred in the agri-environment scheme in Slovakia, where complex and costly application procedures hindered the participation of smaller holdings. Bigger farms were able to present projects by paying private advisors. In France, complexity of applications led the national administration to move from CTE to CAD, simplifying the content of contracts and applications. By contrast, appropriate goals, manageable project size, proper technical assistance and a participatory, inclusive and consensus-oriented approach to preparation were key to success elsewhere (Regionen Aktiv, LUCOP, Food-chain projects in Calabria).

Selection of projects and beneficiaries.
Selection is a big issue because it includes so many aspects: the method and criteria used for the selection, the quality of projects, who is involved in the selection, etc. Strict evaluation procedures and complicated forms have a negative effect on trust between administrators and project promoters (e.g. case study Cumbria, England). Good quality and integrated projects tend to increase the time that projects need to secure approval (Food chain projects in Calabria). By contrast, the desire to access national money as quickly as possible can lead to a rush to sign up as many contracts as possible, with little thought given to the consistency of the measures implemented. This played an important role in the failure of CTE in correctly addressing local environmental concerns (AE measures in Basse-Normandie). If integrated projects need more time in preparation and approval, they probably have a greater consistency in effectiveness. Transparency and competitive mechanisms based on good evaluation criteria without administrative restrictions tend to increase the quality of projects (Regionen Aktiv, Germany). Selection only based on the fulfilment of administrative

requirements tends to reduce project quality (agri-environment scheme, Slovakia). Some case studies underline the need for multidisciplinary competence in evaluation procedures. The choice for funders can be how to select from "among poor projects extremely well presented, and good projects badly presented" (Cumbria case study, England).

Financial procedures, payment system, control and monitoring.
Some of the problems in this area depend upon previous issues. The case of delays of payments is typical - it relates to inefficiency in providing information, preparing and selecting applications. Budget allocation at the territorial level is an important issue, especially for single measures. Some case studies underline the importance of budget allocations carried out at the department level, in order to improve transparency and to assure incentives to competitive selection, rather than speeding up the selection process in order to get more funds (AE measures in Basse-Normandie Region). On the other hand, there is a need for greater flexibility in allocating money where there is the capacity to spend.

Another important issue concerns the inflexibility of co-funding possibilities, raised by the case study in Cumbria. Because each of the schemes had EU money match-funded centrally with UK Exchequer money, any remaining money for projects had to be private sector funded and could not be provided, for example, by other complementary public funding programmes.

The effectiveness of the Payment Agency is varied: in some countries it has apparently promoted efficiency (Czech Republic), in others it has contributed to delays in spending (Slovakia). This is due probably to the different degree of experience in different new MS.

Administrative structures and their organisation
Human resources play a crucial role in both the efficiency and effectiveness of the delivery system. This is related to the amount of people involved in the process, but also the quality of technical resources and expertise, and previous experience in running the schemes. Main gaps in this field have been found in respect of:

- unequal distribution of human / technical resources within the same country and even the same region. In France, the distribution of these resources among the various stakeholders (Chambers of Agriculture, farmers' associations, administration) differed quite significantly between the different départements in Basse Normandie, resulting in different burdens on the delivery system;
- a lack of innovation in designing schemes both in national and regional administrations. In Spain the central government planned its rural development programmes jointly with the regional governments, but no changes were applied to the LFA scheme due to bureaucratic and slow administrative processes;
- weak capacity of the regional administration to drive programming of integrated projects and to assure technical assistance (Food-chain projects in Calabria) and of local administrations to manage local projects (LUCOP, Niger);
- lack of communication and co-ordination among different national administrations. In the village renewal programme, Slovakia there was a lack of communication between Ministry of Environment and Ministry of Agriculture in deciding whether the highly successful MoE-run programme should be mainstreamed into the RDP for 2007-13, which led to an eventual decision not to do this. So the VRP now operates entirely separate to a much larger, less targeted village renewal programme managed by MoA.

Local actors and agencies
Delivery is not only based on public administrations and institutions. The active roles of the private sector (associations, farmers organisations, consultant firms, etc.) and also local

community representatives (counties, provinces, communes/municipalities, mountain communities, etc.) can make delivery systems more complex and less top-down. In this respect it must be noted that interesting solutions to problems raised in the previous phases, and best practice, can arise when:

- local agencies (private or mixed private/public) take the initiative of promoting the scheme through animation, technical assistance, publicity, etc. (CTE, Leader+ in Andalusia, Food-chain in Calabria);
- there is good management of the scheme at local level due to the presence of particularly effective local leadership (as in the case of Leader+ projects);
- there is some form of good communication/networking and coordination among various stakeholders at the local level (Cumbria and Regionen Aktiv).

5.4.6. Instrument design and delivery: lessons and implications for the EU level

Regular payments

Considering this type of instrument, case studies from Catalunia (less favoured areas), Basse–Normandie (France) and Slovak Republic (both agri-environmental measures) are relevant. In all these cases, greater guidance on the rules regarding the selection of beneficiaries/eligibility criteria could improve the delivery of the measures. As regards the LFA payments, the most important implications for EU rules are as follows:

- in many marginal areas ("Mountain Areas" and "Other Areas") LFA support does not sufficiently compensate farmers, while in other areas support can over-compensate. In order to avoid this risk, two different adjustments can be introduced: on one hand, a revision of the payment levels could help to better reflect the handicaps for which compensation is needed. On the other hand, in order to do this, more effective and transparent ways of measuring and mapping these handicaps are needed, which could be achieved with better guidance;
- the Spanish case raises questions over the use of "aid per hectare" instead of "aid per head of stock" as the payment vehicle for the compensatory allowance, which had the effect of excluding less-favoured livestock farmers from the system (those who depend on support for continuing extensive use of pasture).
- The case study from Catalunia shows that innovation in delivery came from the introduction of "horizontal priority criteria" to select beneficiaries in cases where LFA payments are greater than the available budget. Priority can be given to young farmers, agricultural holdings in Natura 2000 and farmers who apply a higher level of good farming practices. These criteria were autonomously introduced by the Member State.

As regards agri-environment measures (Basse–Normandie and Slovak Republic case studies) the major need in delivery emerges in relation to simplification and flexibility in the application of the measure in different regional/territorial contexts. The transition from CTE (Contrats Territorial d'Exploitation) to CAD (Contrats d'Agriculture Durable) in France represents an example. The CAD introduced procedural simplification (reduction in eligibility conditions, simplification of content of contracts and applications), streamlining of measures in the contract and a switch from national and European financial provision to budget allocations made at the Département level. Simplification and flexibility are also reported as relevant factors of success in the Slovak Republic, where farmers are not so accustomed to AE instruments, especially on smaller farm holdings.

Further modification of the conditions of delivery at the EU level appears unlikely to improve delivery, except in respect of two particular issues:

- The eligibility criterion which requires the beneficiary to undertake a commitment for a minimum of five years. This rule is too rigid for farmers who practise transhumance and who do not have guaranteed tenure of the land for five years;
- The possibility to give extra payment for using a collective approach (contracts applying to a number of farming units). This innovation should be introduced particularly in areas and situations where achieving environmental goals requires uptake by a high or interconnected coverage of farms in a given territory (e.g. enhancing water resources).

Investment aids.
This type of instrument was used in seven case studies. As outlined in the catalogue of RD instruments (part 5.2 of this report), investment aids aim at stimulating actions for private individuals, groups and public authorities (i.e. modernisation aids for farmers, public infrastructure, etc.). From the case studies, investment aid in itself does not appear to need revised specification of conditions at EU level. However, there is a more general need to facilitate the combination of different instruments at the farming unit level: i.e. in investment aid for diversification with training; or investment aid with processing and marketing in the field of niche products. This is not precluded in the regulation, but it is not made easy by the presence of many single measures, each one separated from the other. Specific provisions to promote the aggregation of different measures, pursuing relevant objectives (quality, diversification, modernisation, etc.) should be supported by the EU framework.

Improved aid would also require innovation in the close coordination of institutions / offices responsible for different measures pursuing a similar economic goal, as happens in the Cumbria case study. Here a Regional Advisory Group (RAG) was set up with the aim of co-ordinating three different funding schemes (Rural Enterprise Scheme, Processing and Marketing Grant and Vocational Training Scheme) to aid farm reorientation and successful adaptation to policy and market changes.

Advice and information
Advice and information have proven to be crucial instruments for the success of RD schemes in different contexts. There is evidence in the case studies to suggest that a greater involvement of the private sector (including NGOs) could substantially improve the provision of advice and information in varying local contexts. In addition, this is also an area where inter-departmental co-ordination could be valuable. Many RDPs are delivered by agricultural administrations, whereas some measures can benefit from extension support by officials working in environmental and community administrations, including local government.

5.4.7 Feed-back and lessons from difficulties and errors

The case studies show that often, increasing efficiency and effectiveness in implementing RD policies is a result of refining or improving delivery mechanisms over time. Measures, procedures and sometimes even organisations have to be revised and modified. This process is a kind of ‘learning by doing’ method.

Increasing flexibility
An example of this adjustment comes from the application of CTE in Basse Normandie. When it became clear that the set of measures available (despite the large number) were not flexible enough to match the individual context of beneficiaries, in some regions the authorities achieved a high level of uptake by drafting standard contracts with generic measures. This avoided the complexity of creating agreements tailored to specific circumstances, but limited contracts to basic environmental measures rather than achieving

more. As is also pointed out in the Cumbria case study, ‘ there needs to be a better balance between prescription and flexibility in the design of funding schemes, or individual measures’.

Simplification of procedures
Sometimes, procedures need to be revised in order to match the potential demand for support. This happened in some cases: for example, in the application for funds very complex proposals were replaced by simpler “expressions of interest” (as in Cumbria and in Calabria case studies). This enables a pre-selection of ideas, a more informal and less costly presentation by single applicants, reciprocal understanding of needs between the demanders and suppliers of policies, and finally progressive, better definition of project objectives.

Networking and co-ordination
The case study of Cumbria shows very well that the development of networks (also personal relationships) and communication channels between agencies involved in the management of various funding streams and between the region and the central administration (Defra), improved the use of schemes. The setting up of a Regional Advisory Group (different from the Monitoring Committee) to discuss funding options and projects available, increased considerably the awareness of the schemes. It also addressed the problem of how best to combine different funds and programmes in order to respond to territorial need.’ Indeed it allowed them to share funding “which in theory was impossible”, by dividing up projects. For example, the Rural Development Service helped fund the main building of a farm shop near Bootle, whereas Leader funded the subsidiary work, thereby making a bigger pot of funding available overall’. This approach of breaking down a single project into separate bits was also used to combine EU funds and national funds from different schemes. A similar problem concerning the co-ordination of different schemes was evident in Guadix (Andalusia).

Networking and co-ordination should be improved through the work of the National and European Rural Networks which are now a requirement of RDP programming and delivery. However, for these networks to be effective, the potential value of linking activities such as this needs to be recognised in advance by the authorities.

Strengthening human resources and organisation
This issue is usually under-valued in analyses of the efficiency and effectiveness of the delivery system. In our case studies, it emerged directly or indirectly in many circumstances. In this field, adjustments consist of trying to improve endowments of human capital in public administration and extension services, quantitatively and qualitatively. A shortage of technical expertise is felt with particular reference to the most delicate and crucial functions (animation, communication, project preparation and design, financial management, project selection, etc.). From the case studies, it emerges clearly that most successful examples devote relevant financial resources to skills and expertise. This is true for Regionen Aktiv integrated projects, where the most successful regions have spent much on high quality consultancy, and for the LAG of Andalucia, whose technical and administrative staff totals 11 people for evaluating individual projects and providing them with appropriate assistance.

5.4.8 Implications for EU level: instrument design, programming framework

Relationship between complexity of delivery and efficiency and effectiveness
The results of this analysis confirm that the more complex the initial design of the measures, the less efficient appears the implementation process, at least in the initial phase. However after this, the ‘learning by doing’ method intervenes and pushes stakeholders to address difficulties and the reasons for errors and to try to correct the initial design. One or more of the following solutions is then incorporated: flexibility, simplification of procedures,

networking and coordination, more human resources and/or better organisational structures. A mechanism of adjustment is taking place and it follows, more or less, these patterns.

The situation is radically different when we explore the relation between complexity of procedures and effectiveness. Case study examples and wider research literature show clearly that complexity in the delivery system does not imply lower effectiveness. Instead, when complexity is associated with integrated measures, vertical and horizontal partnerships, integrated funds and schemes, more time and resources spent for animation, communication and networking, local planning, etc., then complexity tends to go hand in hand with positive effects on effectiveness.

Specification of measures and nature of instruments

The level of specification of each measure should be linked to the strategy pursued at the level of each programme. Due to the great differences in strategies among programmes, it is important to have a level of specification in the EU regulation that is sufficiently high to enable programme authorities to differentiate implementation and delivery according to the needs and specificities of each region. From the case studies it does not seem that there is over-specification in the description of rules for the implementation of most measures.

A high level of specification can introduce rigidities that compromise the effective delivery of single measures. This effect was very clear in the case of CTE, where initial design of AE measures was modified and they became more generic and less farm-specific. Thus while *efficiency* was improved, the targeting of positive environmental effects (*effectiveness*) was weakened. There are also cases where one might question whether measures' rationale or key goals are sufficiently explained. For example, if village renewal is intended to provide enhancements to quality of life and the environment, through multi-sectoral action, in those municipalities where it is implemented, this needs to be clearly stated in the regulatory framework. In the selection of instruments now available to programming authorities, the case studies have not found significant issues of inappropriate or inadequate design. Rather, the problems occur in respect of the contexts in which measures are applied, where more detailed aspects of eligibility or delivery have been inadequately tailored to circumstances.

Specific requirements concerning RD programmes

This analysis supports the need for a better specification of the programme strategy and thus the choice of a type of delivery which is most consistent with the strategy. This implies that the content of RD plans which describes the delivery system should be sufficiently detailed to allow assessment of whether what is proposed is likely to meet the conditions of efficiency and effectiveness. In particular these sections of RDPs could be more detailed:

- analysis of the current situation in terms of strengths and weaknesses, where specific attention could be devoted to analysing the existing delivery systems;
- the ex-ante evaluation of consistency between the strategy proposed and the existing and proposed delivery mechanisms;
- a full description of organisations and structures involved in the implementation phase;
- a description of the approaches used to integrate measures, not simply under LEADER;
- a description of how national/regional programmes funded by MS resources are implemented, and how this is complementary to the EU-funded measures.

Specific requirements for programme evaluation

Delivery characteristics, and their impacts on the efficiency and effectiveness of the programme, should be an obligatory part of RDP evaluation. They should be included in the tender specifications for mid-term and ex-post evaluations.

Task 5.5 – Review of RD instruments by fiche

5.5.1 Approach to this sub-task

This sub-task requires the completion of fiches, derived from the catalogue in task 5.2, with further analytical and evaluative material based upon the conclusions of two further exercises, in the study:
The analysis of delivery systems in sub-task 5.3
The analysis of the cost-effectiveness of RD instruments - the main outcome of task 3.

The fiches are intended to summarise descriptive and evaluative material relevant to all the current measures in the EAFRD regulation, as well as to cover suggestions for potential new instruments. The selection of potential new instruments was originally derived from our work in task 5.2, and further developed and refined through the completion of the fiches for existing measures. This enabled us to clarify exactly what kinds of new instrument were most likely to offer additionality and the potential to meet anticipated new challenges in RD policy, in the years ahead.

We designed a template for use in generating individual instrument fiches for our catalogue. The fiche covered all the headings and issues detailed in the Commission specification for this task, within the study. The fiche template is presented in figure 5.3 below, for ease of reference. Detailed guidelines for completing the fiches, in this process, are given in annex 1 to this report. As will be seen from the template and the guidelines, the aims of the exercise were:

- To present a clear view of how the existing EAFRD measures operate, how they relate to one another and to EU policy priorities, and to summarise what is known about their effectiveness and efficiency;
- To use this oversight to make recommendations for the improvement of the suite of individual measures by modifications, simplifications or mergers, or additions to the measures;
- To use the information provided in the fiches to consider broader modifications to the EAFRD framework which would also help to enhance measure performance.

We undertook the completion of task 5.4 at the same time as a revised task 3, between December 2007 and end February 2008. The work was undertaken systematically, by each of the partners in the study team taking responsibility for initial completion of a selection of fiches concerning instruments for which they have particular expertise and knowledge. The whole collection of fiches was then peer-reviewed by the other team members to a timetable that allowed editing and refinement as well as the development of some general conclusions from the task.

5.5.2 Findings

The full set of fiches is presented in annex 2 to this report. In overview, the exercise proved very useful in drawing together some key points about how the current menu of measures functions, and how it could be enhanced in future. The reasoning behind these key points is explained in the fiches, so it has not been repeated here. Instead, we focus now upon an overview of the instruments as a whole, and an examination of the scope for improvement.

Figure 5.3 Instrument fiche template

	Part A: Description	
A.1	Title of instrument:	
A.2	Existing instrument or new instrument:	
A.3	Policy intervention type:	
A.4	Objective of instrument:	
A.5	Indirect effects	
A.6	Targeting, eg defined: Sectorally, Geographically, In respect of human criteria	
A.7	Method of delivery:	
A.8	Extent of past experience with instrument in the EU:	
A.9	Corresponding CMEF result and impact indicators:	
A.10	Single cell, multiple cells or joint cell in table 5.2? (assess and describe relation to other instruments)	
A.11	Policy linkages to other RD measures:	
A.12	Linkages to other (non-CAP) funding	
	Part B: Relation to EU policy objectives	
B.1	Corresponding guidelines(s) or key action(s) from the EU Strategic Guidelines for Rural Development	
B.2	Potential to respond to other EU priorities (specify)	
	Part C: Resources Needed	
C.1	Human, physical, financial and institutional resources needed:	
	Part D: Effectiveness	
D.1	Effectiveness of instrument:	
D.2	Potential causes of policy failure:	
	Part E: Recommendation	
E.1	Overall assessment:	
E.2	Recommendation:	

5.5.2.1 Overview of the suite of instruments

The general orientation of rural development instruments is well in line with both Lisbon and Göteborg strategies, with scope to enhance the competitiveness of the rural economy and the main sectors located in rural areas, as well as scope for environmental protection and enhancement. However the current division of measures into axes may encourage a lack of full environmental integration in the use of measures in axes 1 and 3, and conversely, may underplay the scope for environmental investment to be closely linked to developing and achieving economic competitiveness in rural business activities.

The balance of measure objectives fits fairly well into the strategic goals of RD as expressed in the Strategic guidelines. However, the goals of some measures do not fit precisely with those of the axes into which they are currently placed. Notable examples include early retirement and young farmers in axis 1 which may have as much a ‘quality of life’ focus as a competitiveness one, and animal welfare payments in axis 2 which do not have environmental land management objectives. The current LFA measures could be said to have goals which span both axes 2 and 3. Although these points do not compromise the

current application of the measures, assessing their performance against their CMEF axis impact indicators may be inappropriate or insufficient.

The exercise in task 5.2 enabled the study to map goals and needs against instruments in such a way as to identify potential gaps. From the completed fiches it is clear that some potential gaps can be addressed by modifications to existing instruments, while others may merit new ones. At the same time, the fiches lead us to suggest some potentially redundant specific actions, and to examine the issue of proportionality in the administrative burden, in respect of individual instruments. In some cases this relates to project size, but it also commonly relates to specific choices of delivery method, whereby the burden on small projects can be reduced by opting for more devolved approaches, as in the case of LEADER.

5.5.2.2 Scope for improvement

Three common themes emerged from the evaluations, as follows.

1. **There is considerable scope to improve the effectiveness (and cost-effectiveness) of measures through enhanced targeting. However in general (with a few exceptions), this is unlikely to be achieved by more specific definition of the criteria for measures within the regulation**.

Indeed, there is evidence to suggest that the specific definitions of eligibility and mode of operation for measures within the Regulation should be kept as broad as many measures currently are. However, to reduce complexity and increase transparency of measure selection, there should be a relatively consistent degree of specification between similar kinds of instrument (which is not the case currently). We suggest enhanced targeting through three main processes.

Firstly, the precise purpose/goals of groups of measures within the regulation should be clarified and expressed in more consistent ways across all the measures. This should include more wording which is designed to ensure that programme authorities consider, and take steps to avoid, the main causes of low additionality in respect of the measures that they choose to implement. This should provide a stronger incentive to enhance the cost-effective use of financial resources in RD actions.

Secondly, drawing from the delivery analysis (section 5.4), there is scope for guidance on measures and programming (either within the Regulation's implementing rules, or in a renewed set of strategic guidelines) to give more guidance on modes of delivery for specific goals. It could require programming authorities to justify their chosen delivery modes in respect of the particular needs and targets being addressed, for each group of measures. This might include combining measures in strategic packages to pursue economic development and enhanced competitiveness within a territory or a 'filiere', for example.

Thirdly, a small number of measures and outstanding needs should be reviewed to ensure that the measures are fit for purpose in the current RD context. These include:

- early retirement and aid for young farmers, where the rationale and most appropriate design of instruments requires review;
- approaches to foster innovation and quality in rural products (from primary and other sectors), where evidence suggests a more integrated approach is needed;
- village renewal and basic services for the rural economy, where the distinctive roles and value of these measures within RDPs should be clarified in order to ensure that the village renewal measure, in particular, retains the key elements that this bottom-

up approach originally incorporated (as identified in the European VR Association's definition);
- the need and opportunity for new, innovative joint environmental and economic initiatives, particularly to meet the challenges of climate change;
- the need for appropriate training, advice and capacity-building across the full range of second pillar strategic goals (economic, environmental and social);
- a review of the need for, and best ways to provide, access to credit among small farms and micro-businesses in the new MS.

Having reviewed the potential role for a risk-management measure within Pillar 2, we see limited rural development merit in this instrument, and believe it remains logically the domain of CAP Pillar 1 actions.

These developments place a particular emphasis upon enhancing the cost-effective deployment of human and institutional resources, in RD actions

2. Several groups of current measures represent 'variations on a common theme' which could be combined in future without loss of scope or function.

Such simplification could overcome one of the issues raised in our examination of cost-effectiveness, whereby programme authorities struggle to find the simplest or most flexible measures among the various options that allow them to make similar interventions. There are also instances where measure duplication has been necessitated by the separate 'axis' structure in the Regulation, which is not entirely helpful and which may increase complexity for programming authorities and potential beneficiaries. However, we concentrate here upon within-axis simplifications, and return to the issue of potential modifications to the relationship between axes and measures in section 6 (Recommendations). We suggest that an appropriate target for reform in this way would be a new Regulation with around 30 individually-specified measures, maintaining the functional scope of the existing 40-plus while also incorporating our suggested adaptations, and drawing from our analysis to achieve more consistency in measure breadth.

3. ***We see potential for the suite of measures to be adapted specifically in the light of the new challenges for RD policy***.

Most notably, these could include a potential new measure in axis 2, and a revised alternative 'environmental-economy' focus for several measures in axis 1 and 3. These changes would seek explicitly to encourage more low-carbon lifestyles, more sustainable rural energy generation and use, collective rural waste recycling and protection of water reserves and hydrological functioning, and a last-resort ability to protect key environmental assets, where necessary. Novel planning approaches, such as triple-bottom-line accounting, could also be supported. We also recommend the definition of new CMEF indicators particularly to enable and encourage synergistic measures and approaches suitable for the 'new challenges'.

Below, the main suggestions are summarised in respect of each axis of the current regulation, under enhancement; simplification; and new challenges for RD policy.

Axis 1

Enhancement:

- Encourage use of training, modernisation and adding value aids together in packages delivered according to strategies prepared by beneficiary groups or local partnerships. These should be focused on specific territories with significant needs, and/or specific filières which have been subject to careful analysis to pinpoint opportunities for more successful and sustainable developments.

- Enable packages which have a major environmental component (i.e. where funding is promoting enhanced environmental sustainability in management operations) to be eligible for higher than the current 40% maximum grant rate on investment aid, where this is justified in terms of wider public benefits and lower productivity impact.
- Review the purpose and appropriate form of early retirement aid and support for the installation of young farmers. The review should be with a view to revising these instruments and delivering them in more tightly targeted but flexible packages for intergenerational transfer, attracting new (old and young) people into the sector, where this is clearly needed.
- Withdraw measure 132, support for participation of farmers in food quality schemes, and replace it by a package to support quality which combines measure 133 with 124 and enables payments for training, as well.
- Improve the effectiveness of semi-subsistence farm support (141) by slightly lowering the turnover threshold – or enabling reasoned adjustment by reference to local farm structures data, in each programme area - and raising the allowable level of aid, as well as enabling funding for targeted advice alongside the measure. Require geographic targeting which should be reviewed every 3-4 years.
- Consider other minor changes to measure applications, as indicated in the fiches.

Simplification:

- Combine measures 111, 114, 115, ensuring that the new combined measure enables all functions to still be achieved (but dropping the requirement that measure 114 must include advice on cross compliance as a minimum component of all supported advice). Encourage use of the measure particularly to encourage innovation and entrepreneurial activity, as well as sustainability and competitiveness.
- Withdraw measure 126 and ensure that these actions can instead be supported under measures 121 and/or 125, where the need arises.
- Combine measures 142 and 124
- Consider whether measures 122 and 123 should be grouped into one measure, to provide more appropriate and flexible treatment for forestry, in particular.
- If axis-links are relaxed for future measures (see Section 6), consider applying a principle of 'sliding-scale' to the EU contribution and max public funding rate, in respect of measures 121-3 (and investment aid in other axes). This would require it to be higher where the ratio of public to private benefit is greater, and lower where the converse is true. Such an approach could enable merger of these measures with similar investment-style instruments currently in axis 2 and 3.

Meeting new challenges:

- Add explicit scope within measures 111, 121, 122, and 123 for actions which can review/audit, plan and develop new carbon-saving approaches in farming and forestry activities. These should include management of wastes (wood and manures) to generate local energy, adopting emission-reducing technologies and increasing energy efficiency in primary and secondary production techniques and installations. Consideration should be given to whether such investments might merit higher grant rates than the current maxima applied to measure 121, on the basis of the balance of public versus private goods involved. Pilot measures, including for biogas, may be useful.

Axis 2

Enhancement:

- Revise the eligibility criteria for the LFA measure as well as reclassifying the Article 19 areas, and thereby improve environmental targeting. A more explicit focus on environmental and cultural objectives, including high nature value farmland, should be considered.

- Tighten the requirement for clear environmental benefit over and above cross compliance from agri-environment schemes. Incentivise the use of targeted, narrow and deep schemes including the re-flooding of peatland to improve sequestration on vulnerable soils. Pursue a landscape scale approach and improve overall environmental coherence through the wider use of higher tier measures (in combination with more widespread basic level measures). Increase focus on habitat maintenance or creation and management to facilitate functional connectivity. In some areas a more outcome-driven approach is required. Encourage the use of agri-environment in a package with measure 111, to enable planning and training to be a regular part of such actions. Increase emphasis on advice and support, enable payments to incentivise collaborative uptake.
- Consider developing separate, forest-appropriate GAEC conditions and cross-compliance requirements, to underpin all forestry measures, based upon the MCPFE principles and EU forest action plan.
- Measures to support implementation of the Water Framework Directive should be transitional and separated from the longer term supply of public goods through Natura 2000 which requires longer term payments. This implies splliting them into 2 measures.
- If axes are retained (see Section 6) move measure 215 into axis 1.
- Simplification:
- Merge forestry measures 221 and 223 by removing the annual compensation element of 221 and replacing it with special conditions enabling Pillar 1 decoupled aid to be paid on newly-afforested farmland, for a similar period, enable maintenance payments to be applied more widely and for a longer period, where local circumstances justify.
- Consider further simplifications to reduce the total number of separate axis 2 management measures for forestry and farmland, based upon common types of action.

Meeting New Challenges:

- Increase the focus of measures on the challenge of maintaining biodiverse farmland, primarily managed by low intensity livestock systems. Initially this could be partially via the revised LFA measure, but further research should explore the need for a new approach. There is also scope for encouraging some soil/climate measures such as the flooding of peatland.
- Consider a specific, targeted approach to enable public or NGO grant-aided purchase of land, of high conservation or other environmental value (e.g. exceptional climate adaptation or sequestration importance), where its value is threatened e.g. by intensive agriculture or by complete abandonment in the short-term. Purchase would require the setting up of subsequent arrangements which could secure appropriate management in the medium term through the use of conservation clauses in tenancies/grazing licences or similar institutional arrangements. The possibility should be open for authorities to sell on this land with binding covenants to prevent inappropriate conversion to other uses. This measure would not be appropriate for large scale land purchase but for limited acquisitions where the voluntary management approach was impractical or represented poor value for money.

Axis 3

Enhancement:

- Increase the distinction between village renewal and basic services as measures, by emphasising the methodological characteristics of a successful village renewal approach. These should be based upon the principles espoused by the European Association for village renewal (see Slovak case study, section 5.3), which are similar to those in LEADER. Consider introducing maximum EU spending limits/guidelines per project for village renewal, to ensure it is not used for large scale investment that is supported under Regional and cohesion policies.

Simplification:

- Consider merging measures 311-313 to enable all three purposes to be funded through one common instrument for tangible and intangible investments, targeting economic diversification, innovation and more environmentally sustainable business activity, including explicit mention of the new environmental economy, and including tourism.

Meeting New Challenges:

- Develop a new measure or new approach to promote initiatives for lower-carbon lifestyles and production in rural areas, focused on innovation, along LA21 lines.
- Ensure that the measure for basic rural services enables and encourages the design and implementation of low-energy approaches and waste minimisation, recovery and recycling through organisation of collective facilities at local level.
- Consider developing a measure to promote local social capital, capacity building and lifelong learning, targeting the most remote rural areas and/or socially-excluded groups in rural areas, stimulating self-help to overcome disadvantage.

Axis 4

Enhancement:

- Consider an incentive to encourage increased effectiveness in application of the LEADER approach, at the level of programming authorities. However, if this is a reserve allocation, it should not be awarded simply on the basis of efficiency of spend, or number of jobs created.
- Review the arrangements for effective RD networking at national levels to see what they appear likely to deliver, and consider reinstating a specific LEADER networking facility focused explicitly upon best practice in micro-level interventions, if the evidence suggests that this is insufficiently catered for within national RD networks.

These are some initial suggestions that emerge from our analysis in this task. These are put forward as indicators for policy makers to develop further in the coming period of policy review and development. We will revisit some of these issues in a more general way, in the study recommendations.

Section 6. Study Recommendations

6.1 Our approach to the task

The study recommendations draw from the main findings of all the tasks completed to extract the key points that emerge, in respect of how RD policy could be improved in the future by modification to EU-level policy design and oversight. We do not wish here to repeat the detailed findings from each task, but we see value in discussing and clarifying the main points, as well as the limitations of what it proved possible to achieve, in the timescale and budget allocated. This generates proposals for further development in respect of those areas and tasks where we believe it would be useful. The overall aim of development work should be to increase the evaluative information available to the Commission as it considers the future of Pillar 2 within the CAP, in the wider context of the health check, the EU budget review and ultimately, the next programming phase beyond 2012.

Thus we have organised this task report around a brief re-cap of conclusions and suggestions from the main tasks, and recommendations dealing specifically with the points required in the study specification, including future needs for development.

Theme 1: Targeting of RD expenditure, 2000-13

Results

A novel, comparative analysis of RD expenditure across the two periods 2000-06 (combining RDR Guidance and Guarantee, SAPARD and transitional instrument expenditure for all EU-27) and 2007-13 (using available figures, as at July 2007) was undertaken. An increase in both the overall public funding budget from €88bn to €142bn and the EU allocation from around €58bn to more than €90bn, (each increased around 40 per cent, once adjusted for inflation), mainly reflects enlargement from 15 to 27 Member States. The total figures mask a much greater proportionate increase in EU funding to new Member States (nearly 400%, in real terms), and a cut in EU funding to the EU-15 (of 1 per cent, in real terms)[38]. Although in most programmes, axis 2 (environmental land management) tends to be the largest spending axis in both periods, generally the non-convergence programme areas focus more strongly on these measures than convergence ones, which tend to give significant weight to agricultural restructuring (axis 1). The differences in priorities between these groups are less marked for 2007-13 than 2000-06, which may reflect new MS' reliance on SAPARD[39] for much RD expenditure 2000-06, as well as the minimum spend proportions applied in 2007-13 which will have encouraged more consistency between programme areas.

Overall, RD spending patterns have changed, between funding periods. 2007-13 programmes plan to spend significantly more on axis 3 (rural diversification and quality of life - an almost 2.5-fold increase in EU funds, in real terms) and to slightly increase resources for axis 2. In addition, relatively more axis 1 funding is devoted to human capital (training, advice and co-operation) and market-orientation (adding value and quality), and a slightly smaller share to inter-generational transfer (young farmers and early retirement), where large decreases in spending among EU-15 exceed increases among the new MS. Within axis 3, a large increase in funding for village renewal and rural services in the new MS is notable. For

[38] Which itself includes some MS experiencing increases (eg UK) while others saw significant cuts (e.g. several German Länder with cuts of more than 20 per cent, in real terms), as a result of the Council decision on the Financial Perspectives, in 2005.
[39] Which offered aid for a reduced range of measures, more focused on farm restructuring.

axis 4, project spend (i.e. local projects supported by LEADER groups) is planned to increase significantly (almost thirty-fold). These changes may represent evidence of positive trends in RD targeting, in that they generally move in a direction recommended by independent and international studies of RD[40].

Nevertheless, the patterns of measure choice and planned funding exhibit a degree of path-dependency. It is to be expected that the selection of, and funding for, measures in previous periods will influence spend in subsequent periods. This may reflect persistent needs, as well as ongoing financial commitments for some measures (particularly under axis 2, and early retirement). However, the study gathered evidence of programmes retaining and expanding measures rather because they are instruments with which implementing authorities and potential beneficiaries are most familiar, and/or are certain to spend significant sums relatively simply, particularly in respect of aid to the farm sector[41]. Evidence from interviews with experts indicates that it has been difficult, politically, for some implementing authorities to make large changes in policy between programming periods. Especially in those ten MS acceding in 2004 whose programmes ran only for short periods (2000-04 and 2004-6), more conventional measures dominate. The programme-level analysis using RDPs, literature review and expert interviews suggested related issues of lack of capacity among administrations, and sometimes civil society, to implement more ambitious measures (including targeted agri-environment aids, and LEADER). Other issues identified in this qualitative analysis include apparent institutional conservatism[42], and barriers to uptake among some beneficiary groups in greatest need (e.g. smaller farms, people living in economically depressed rural municipalities). In view of the developments already made in the Regulation (e.g. Article 6, which strengthens the principle of partnership in delivery) these points suggest a continuing need to encourage further institutional learning and adaptation, within the planning and implementation of RDPs.

Analysing the 'intensity of spend' measured by utilised agricultural area, agricultural workforce and number of holdings showed large variations between programmes which partly reflect differences in farm structure, but also show unusually high intensities in a few programme areas (e.g. Finland, Luxembourg) and low intensities in others (e.g. Romania, Netherlands). The analysis of EU-15 NUTS 3-level spending on accompanying measures (agri-environment, Less-Favoured Areas, early retirement and farmland afforestation), 2000-06, shows variation in the intensity of spend within programmes. However it is not possible to identify whether this is a result of conscious targeting of local needs (defined by geography or eligibility criteria) by the programme authorities, or simply uneven response by the eligible beneficiaries (i.e. if the measures proved more popular among farmers in some regions than in others).

Finally, an analysis of spending over time reflects how different kinds of measure are inherently more or less likely to disburse funds quickly or predictably, irrespective of the situations in which they are applied. Thus, annual payment measures (significant within axis 2) tend to have more consistent spending profiles than investment aids, and aids to build and mobilise social and private collective capital tend to be slower to spend than physical capital expenditure (most relevant to axes 1, 3 and 4).

The study assembled a broad-based set of programme-area rural characteristics in respect of economic, environmental and social needs and opportunities, using EU-level datasets.

[40] Dwyer et al, 2003; OECD, 2006, World Bank 2004

[41] In the programme-level analysis (section 3.5) and in 2 study workshops involving Commission officials and external experts

[42] see Dwyer et al, 2007, for a fuller discussion of this phenomenon and how it affects RD policies

These illustrate the varied character of Europe's rural areas, including some which are buoyant economically while others are in persistent decline, with a huge range in farm structures from the semi-subsistence to the highly capitalised and concentrated, and a wide variety of environmental assets and pressures. A policy (RD) and literature review of the meaning and variety of RD 'needs' (including opportunities), in the European context was used to select and assemble characteristics as a set of 'indicators of need'. The set was related directly to measure-groups within the EAFRD, and scored by simple division of the range of variation for each indicator into banded values, from A (indicates relatively high need) to E (indicates relatively low need), for maximum transparency. Scores were then compared to expenditure patterns.

There are similarities between RD expenditure patterns (both actual 2000-06 and planned 2007-13) and patterns of apparent need denoted by the indicators, between programme areas. Globally, more resources are devoted to areas where economic problems and the need for restructuring (particularly, small farm sizes, high employment dependence upon agriculture, low levels of education and training) tend to be greater. Within axes, it appears there is some conscious targeting for particular issues (e.g. human capital, in the UK farm sector). By comparison with the findings of previous studies (e.g. Dwyer et al, 2003), it seems the recognition and justification of needs has become more prominent in RD programmes for 2007-13, and RD needs are now more clearly conceptualised, evaluated and debated than they were during preparation of the previous programmes.

The strong emphasis of all RDP spending upon axis 2 cannot be assessed adequately, because for some aspects, comparable, relevant environmental data for all programmes is missing.

It is evident that Pillar 2 is complemented by other national and/or EU regional policies. In respect of rural socio-economic funding, these may be of equal or, in some cases, greater financial significance. It is therefore difficult to assess the issue of optimal resourcing of socio-economic RD goals without fuller consideration of these wider policies and the role of RDPs in that context. However, analysis of the indicators across the EU-27 and also of the needs described in selected individual programme areas suggests that RDPs, considered alone, may devote too significant a proportion of funding towards the agricultural sector, and not enough to the wider rural economy and community[43].

There is significant variability in the available financial resource for RD between different programme areas which is difficult to justify purely in terms of apparent relative needs. This seems to be mainly due to the historic weighting of EU-15 RDP allocations. In respect of the new MS, certain objective criteria have been used as a basis for RD allocations. Our study suggests that the allocation formula is likely to overemphasise the relevance of needs for the agricultural sector, as compared to environmental or wider socio-economic needs.

At the same time, the analysis confirms that the current RD framework offers considerable scope for programmes to target RD measures and expenditure towards areas and circumstances of rural need and opportunity. There are signs of improved targeting compared to 2000-06 (discussed in 'results', above), but also indications of opportunities for more effective use, between and within Member States. Further development work could strengthen analytical capacity and promote better understanding of these issues, in future.

[43] see sections 3.4 and 3.5

Recommendations, including suggestions for further work

> R.1. At the level of EU budgetary allocation between Member States, the current system is not in line with a balanced appreciation of the relevant characteristics of rural areas for pursuing the key goals of RD policy. For this, better indicators of the natural and the wider socio-economic / quality of life characteristics of rural areas, should ideally be included in the formula for determining how to divide up the available EU budget for RD actions, between all the Member States.

We suggest that the development of such indicators could be achieved, using insights from this study. There is evidence that past RD programming and evaluation has been more thoroughly supported by data and understanding in respect of the needs and priorities of the agriculture sector, than in respect of the environment or wider socio-economic needs of rural areas (not least due to relative ease of data collection). If the second pillar is to retain its broad focus, particularly in light of the pattern of planned expenditure for 2007-13 (with increased environmental spending and significant axis 3 spend on non-farm measures), more understanding is needed in respect of environmental and wider socio-economic needs and priorities, at EU and programme levels. This is a necessary component in determining how any additional RD resources should be prioritised.

> R.2. We recommend further work to refine and enhance the indicators of need developed in this study, to improve their analytical value and to address weaker areas. This should address gaps especially for the environment and the 'new challenges'[44], and improve non-farm, rural socio-economic aspects.

We suggest it would be valuable for DG Agri officials within the Commission to work with the EEA, Eurostat and Regional policy colleagues, as well as the MS, to enhance relevant datasets, particularly in respect of programme-level environmental, and specifically rural-area socio-economic, data. To meet new challenges for RD, we suggest the development of indicators to examine the potential for climate change mitigation and adaptation, and for sourcing a greater proportion of domestic energy needs from sustainable and renewable forms of land-based activity, such as composting and second-generation biofuels. Further, the fourth Cohesion report approach may provide a more meaningful, common definition of rural areas in the EU-27 than the OECD one[45], to enable the refinement of common indicators of need.

The relationship between pillar 2 funds and those from EU regional policy, and national policies affecting rural areas, is clearly critical in affecting the optimal allocation of RDP resources. The requirement for programmes and programme evaluations to include sections describing the scale and focus of other relevant public funding in rural areas should be strengthened further. Specifically, the relative scale of funds targeting different RD needs from EU-regional and national funding sources could be estimated in more detail in RDPs, and the arrangements for ensuring complementarity of funds could be examined more thoroughly, in RDP evaluations.

We note the rules on complementarity, consistency and conformity in funding specified in Chapter III of the EAFRD Regulation, which have been strengthened by comparison with those in Regulation 1257/1999, to help ensure an efficient division of labour between EAFRD and EU structural funds. They were apparently the subject of detailed discussions between

[44] As referred to in the Commission's CAP Health Check proposals, May 2008

[45] A more refined definition is used within the Fourth Cohesion Report, which represents a development of the OECD typology.

the Commission and MS in respect of many RDPs, and thus already represent progress. However, the rules cannot extend to national funding, and thus we see benefit in establishing more detailed guidance to help ensure a consistent treatment of this broader issue by programme authorities.

> R 3. It is important to encourage the development of a broader understanding between programme authorities, the Commission, stakeholders and wider civil society, about the rationale for comparing needs and resource allocation decisions within RDPs. A process to foster ongoing learning in this context is recommended, such as further programme-level analysis of agreed common indicators of need. This could be developed within the CMEF, in partnership between the Commission and Member States.

On the basis of a revised set of CMEF baseline indicators for 2013 and beyond (developed from the preliminary work in this study), new programme guidance could require programme authorities and evaluators explicitly to consider and explain the extent to which resource allocation decisions relate to these, within RDPs and programme evaluations. We believe that a regular series of workshops involving Commission and Member State officials as well as independent experts, examining RDP performance against key strategic RD goals and objectives in turn, would be valuable in fostering ongoing learning over the next few years. Improving dialogue between the Commission and the Member States on the topic of RDP performance (both qualitative and quantitative results and impacts, not only outputs) should help to address needs discussed above. The new-established network on RD Evaluation may offer a good opportunity to develop such events.

Theme 2: Adequacy of the RD Framework (including RD typology and catalogue, cost-effectiveness, delivery analysis and review of instruments by fiche)

Results

The study adopted a 'sustainable livelihoods' approach to rural development interventions based on types of rural capital: physical, financial, human, social, and natural and cultural. Examination of RD policy rationale and experience indicated a historic (pre-2000) emphasis upon physical and financial capital within EU expenditure, as opposed to human, social, and cultural capital. These other forms of capital are increasingly recognised as critical to sustainable RD and, encouragingly, are growing in importance as elements of EU RD expenditure, as mentioned earlier in this section.

A catalogue of RD instruments was drawn up by combining the typology with 4 main possible EU intervention approaches (investments, regular/annual payments, funding for advice and information, and funding for enhanced administrative/quasi-regulatory processes). This showed that the current range of instruments in the EAFRD covers most potentially valuable RD policy interventions. However, the breadth of focus of the existing instruments varies significantly, and this appears to be more a result of historical legacy rather than current policy needs. Thus, the analysis suggested opportunities for potential new instruments as well as simplification and enhanced consistency within the RD menu of measures. This would provide more balance in the range of instruments, and in the degree of flexibility incorporated in each measure or group of measures. It means that for some measures we recommend increasing their flexibility of application, while for others we recommend focusing them more clearly upon specific purposes. The overall aim is to achieve a more consistent degree of focus between measures, to improve transparency and minimise overlaps or

scope for confusion between them, and thus encourage greater effectiveness in meeting strategic RD goals.

The examination of cost-effectiveness (section 4.5) concluded that there was good evidence to support the cost-effectiveness of many of the measures in each EAFRD axis, although performance is strongly dependent upon the choice of delivery methods and local context (section 5.4). There is increasing empirical evidence to suggest that axis 1 and 3 instruments can be more effective when delivered in integrated packages (e.g. for a territory, a 'filière or and individual business) than when delivered as single measures[46]. Agri-environment measures appear more cost-effective when targeted towards clear environmental benefits (e.g. particular habitat or species' requirements, input reductions for water quality) and supported by appropriate information, training, education and applied research, as well as co-ordinated investment (management plans, habitat and infrastructure restoration). Measures for the rural economy and community (mainly in axis 3) are more likely to perform effectively if delivered via approaches which strengthen human and social capital, but these often take several years to become fully effective (thus favouring long-term policy continuity). At the same time, empirical studies indicate poor cost-effectiveness for some individual measures including early retirement and Less-Favoured Area aids, on the grounds of insufficient tailoring of scheme details to the local context[47]. There is also much independent research evidence that investment aids to private businesses (e.g. farm investment, young farmers, marketing and processing, farm tourism) give low additionality if they are not sufficiently targeted towards those situations where there is a clear rationale for public funding and low risk of displacement effects.

The analysis of delivery systems (section 5.4) demonstrated the wide variety of approaches in existence, to deliver RD programmes and measures. It indicated that this variety of approaches is often necessary in order to reflect local conditions and that, partly due to policy developments since 2000, the EAFRD regulation presents few direct obstacles to the effective delivery of RD goals. However, it also concluded that the choice of delivery approach is often critical for successful achievement of desired outcomes and that there is a need to strengthen institutional learning in respect of the pros and cons of different delivery approaches, in RD. To promote the active pursuit and adoption of apparently more promising approaches, some incentive to adopt more integrated, strategic and experimental delivery systems could be warranted.

The study team made a comprehensive, structured review of instruments in 'fiches', drawing upon all previous elements in the study as well as expert judgement, in order to generate detailed recommendations for improvement. 39 fiches were prepared, covering existing EAFRD measures and potential new measures.

Recommendations – changes to the framework

There is scope to improve the effectiveness (and cost-effectiveness) of measures.

> R.4: The precise purpose/goals of measures and measure-groups within the regulation could be further clarified and expressed in more consistent ways across all the measures, to ensure that their purposes are clear and avoid overlap.

[46] See also section 5.4, and Annex 4 Regionen Aktiv, Niger, Cumbria and Calabria case studies

[47] Annex 4 Spain case study also indicated this, for LFA

We suggest expanded guidance which explains the objectives, rationale and approach of each measure in more, and more consistent, detail, as a transparent document which is available in the public domain to assist planning and delivery. This could be produced in collaboration with the MS, perhaps under the RD Network.

R.5 There is a need to strengthen institutional learning in respect of the pros and cons of different delivery modes and to promote the use of apparently more promising approaches. Guidance on measures and programming could include more detail on appropriate modes of delivery. Programme authorities could be required to describe their chosen delivery modes (e.g. whether centralised or devolved, single or combined measures), and explain how these choices relate to goals and local context. Guidance could describe the main kinds of recommended delivery system for particular strategic purposes in particular contexts. This could include combining measures in strategic packages within a local territory, a 'filiere', or at the level of an individual business. The scope to offer some incentive (perhaps under the RD network) for innovation and integration in delivery could also be considered.

R.6 A number of measures and outstanding needs should be reviewed to ensure that the menu is fit for purpose, in the current RD context. These include:

- early retirement and aid for young farmers, where the rationale and most appropriate design of instruments requires review (LFA has just been reviewed – IEEP, 2007);
- approaches to foster further innovation and quality in rural products (from primary and other sectors), where evidence suggests a more integrated approach is needed;
- village renewal and basic services for the rural economy, where the different roles and value of these measures within RDPs should be clarified in order to maximise the potential of each (particularly village renewal)[48];
- the opportunity for innovative joint environmental and economic initiatives, particularly to meet the challenges of climate change;
- the need for training, advice, applied research and capacity-building in pursuit of RD strategic goals;
- the need for, and best ways to provide, access to credit among small farms and micro-businesses in the new MS.

Having reviewed the potential role for risk-management measures for farmers within Pillar 2, we see no clear RD case for this and believe any such measures would fit more logically in the domain of CAP Pillar 1 because they are essentially sectoral tools to counterbalance market fluctuations.

R.7. We recommend some simplification of the menu of measures to improve clarity and coherence of application, across the EU-27. Several current measures represent 'variations on a common theme' which could be combined in future without loss of scope or function (e.g. measures 111 training, 114 advice and 115 advisory services).

We suggest that an appropriate target for 2013 could be a new Regulation with around 30 individually-specified measures, maintaining the functional scope of the existing 40-plus, while incorporating adaptations to achieve more consistency in measure breadth.

[48] See Slovak VRP case study

We believe the suite of existing measures could be adapted specifically in the light of the new challenges for RD policy. A potential new measure in axis 2 (see section 5), and a reinforced, alternative 'environmental-economy' focus for several measures in axis 1 and 3, could support rural areas' important contribution to climate change, water and biodiversity protection, encouraging low-carbon rural lifestyles, sustainable energy generation and use, collective waste recycling, protection of hydrological functioning, and a last-resort ability to protect key environmental assets. Novel sustainability planning approaches[49] could also be supported. A new 'environmental economy' goal could be considered within the Strategy Guidelines, supported by new CMEF indicators, which would build upon the existing general encouragement for 'win-win' approaches but develop it further, specifically addressing these challenges.

From our review of delivery approaches, cost-effectiveness and the performance of individual instruments, we conclude that organising measures at EU level by axis limits flexibility of resource use across axes and requires duplication of some measures, (e.g. for training, in both axis 1 and 3). It thus acts as a disincentive to integrated projects (where resource shifts between axes are more likely to prove necessary, or where a single approach delivers against more than one axis goal) and approaches at the level of the programming authorities, which will be particularly unhelpful for 'environmental-economy' goals. In effect, the regulatory framework acts as a model of what is considered 'usual practice' in programming, which discourages less obvious approaches. Nevertheless, it is important for the Commission and Member States to have a clear overview of resource use against RD strategic goals as set out in the Strategy Guidelines. The minimum spending thresholds are designed to ensure that each programme gives due consideration to each of these main EU priorities for RD, and there is implicit evidence from this study that the thresholds may have had beneficial effects, within RDPs and at the EU level[50], in this way.

> R.8. The Commission could usefully consider loosening the strict linkage between the three strategic goals of RD activity as expressed in the Strategy Guidelines, and the grouping of individual RD measures into the axes of the EAFRD regulation. We recommend retaining strategic goals, but encouraging more flexible use of measures between axes (or removal of axes altogether). This change would enable measures from the entire menu to be used more flexibly in future to pursue these goals, and encourage synergies and integration in delivery. Minimum spend thresholds could still be used in respect of the strategic goals, but different combinations of measures could be identified and used to deliver against each of these, in different RDPs[51]. We also recommend that the thresholds should be kept under review, to enable modification in the light of RD evaluation findings[52].

Although under the CMEF, integrated measures and alternative indicators can be proposed by programme authorities we suggest that it would be helpful to make this process easier by design, to encourage it. It would be helpful for the Commission to stress in guidance that the CMEF indicators are regarded as a suite which is broadly relevant to RDP actions, but in respect of which programme authorities can select those measures which will be relevant to delivering the different *outputs, results* and *impacts*, in each case. Some suggested CMEF

[49] Such as triple-bottom-line accounting, designed to balance economic, social and environmental implications

[50] sections 3.2-4 (increased use of axis 3 and 4) and 3.5 (improved balance in RDP planning)

[51] Programme authorities would need to explain which measures they were using to pursue which goals, as well as resources

[52] reducing required shares if evidence suggests that certain goals have been met, increasing these if emerging evidence highlights continuing, significant needs, differentiating thresholds according to groups of Member States.

outputs and results will not be delivered, in all programmes (and therefore targets would not be appropriate), but *impacts* should remain universally relevant.

Recommendations - further research

In respect of methodology, this study has shown that while there is a significant amount of data in respect of the resource inputs and outputs of EU RD policies, there are nonetheless significant challenges in trying to use this to identify the most important lessons for future improvement. The highly varied qualitative and contextual factors that influence RD issues (embracing a wider range of goals and ensuring subsidiarity in implementation) and the impacts of RD policies across the EU-27, call for a more profound level of investigation which can uncover causal linkages between the numerous measurable variables.

In order to generate meaningful recommendations, our work has drawn upon secondary sources and expert judgement both to explain the variations and trends in the data and to capture the range of relevant issues and considerations affecting aspects of performance that are not (yet) covered by any quantitative data. There is a need for further EU-comparative and longitudinal empirical research (ideally, spanning more than one programme period) which can take account more fully of such varied and qualitative RD actions, approaches, issues and effects. This is particularly important in achieving more effective monitoring and critical evaluation of RD policies. More work to analyse complementary EU-regional policy and national rural funding streams would also be valuable.

> R.9. We recommend further research to gather more robust, longer-term and comparable information on the implementation costs of different measures, as well as on both hard (quantifiable) and soft (qualitative) results and outcomes of RD actions, and to identify best practice in recording, valuing and applying the lessons from these. We also recommend further work to examine the roles and relationship between RD funding (and outcomes) and the complementary funding from EU-regional and national sources, in more detail.

We hope that the Commission encourages programming authorities to give proper attention to the findings of *ex-post* evaluation of RD programmes 2000-06, and organises EU-level events to publicise emerging lessons from these, immediately after their completion. These evaluations will represent the first comprehensive examination of second pillar performance and will thus be a valuable source for learning, for the future.