

# **Towards regional differentiation of rural development policy in the EU**

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Project code 62757

January 2003

Report 6.03.01

Agricultural Economics Research Institute (LEI), The Hague

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Towards regional differentiation of rural development policy in the EU

Terluin, Ida J. and Gabe S. Venema,

The Hague, Agricultural Economics Research Institute (LEI), 2003

Report 6.03.01; ISBN 90-5242-788-7; Price € 44,- (including 6% VAT) 234 p., fig., tab.

In this study a comparative analysis of the Rural Development Plans (RDPs) in four intermediate rural regions (Northern Netherlands, Lower Saxony, Wales and Emilia Romagna) and four most urban regions (Southern Netherlands, North Rhine-Westphalia, Flanders and Lombardia) is made. Such plans are designed in the scope of the second pillar of the Common Agricultural Policy (CAP). In particular, the focus was on the question whether the menu approach of the second pillar enables EU member states and regions to design Rural Development Plans with a tailor-made set of measures which address their specific rural development needs.

The findings of this study suggest that the current menu of rural development measures is sufficient to suit the wide range of socio-economic, ecological and physical circumstances in the EU regions. The analysis also revealed that there is some overlap between the three rural development priorities of the second pillar. Therefore, an outline of future rural development priorities and measures in the EU is designed, in which it is attempted to avoid overlap between the various rural development priorities and in which each measure contributes to the achievement of one development priority only. In addition, it is proposed that regions would select only those measures in their Rural Development Plan which really address the rural development needs in their region, even if this results in a Rural Development Plan with only one or two rural development measures. Such an approach of selecting rural development measures according to regional needs will result in a large variation in rural development measures implemented and may be considered regional differentiation of EU rural development policy.

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## Preface

Working with the Ministry of Agriculture, Nature Management and Fisheries in the northern parts of the Netherlands, one may wonder whether such regions would benefit from a more differentiated mode of Rural Development Plan. The Northern Netherlands definitely are different from the highly urbanized central and western parts of the Netherlands. They harbour quite a significant proportion of the nation's arable agriculture as well as animal husbandry, mostly of a land bound type. The population density is comparatively low and at least one quarter of the population here still lives in villages of around 2,500 inhabitants. These rural areas are rich in terms of landscape and nature values and as a matter of course attract visitors from elsewhere for their recreation.

In being one of the last of such areas of outstanding scenic and historical beauty and relatively semi-natural landscapes characterized by a comparatively high biodiversity, calm and quiet, stocks of clean drinking water, the more urbanized parts of the Netherlands are laying all kinds of claims on the Northern Netherlands. In terms of accessibility for leisure and tourism, but also in terms of designating quite a bit of its territory to be protected for one or another reason e.g. Birds and Habitat Directives, national parks, nature reserves, areas of outstanding scenic beauty, monuments and environmental protection areas. In such areas, farmers are expected to contribute to the production and sound management of these environmental public goods. They are expected to perform well in this respect over and above the average 'agricultural good practice'.

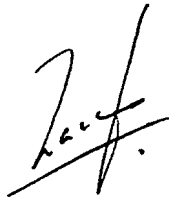
Starting from the idea that this may call for an appropriate package of rural development policy measures we decided to study a number of rural areas across Europe, some of which are in a rather similar 'intermediate' sort of situation like the Northern Netherlands, and others located in a rather more 'urban' sphere of influence. The underlying assumption being that such an analysis might demonstrate indeed that such areas would benefit from more tailor-made policy frameworks for their development. And this at a period that the mid-term review of the rural development and agricultural policies of the European Union is under way. Perhaps this would provide for allies across Europe to jointly argue for the introduction of rather more regionally differentiated forms of rural development policies at a European Union level.

Last but not least, this in an epoch that we are about to enlarge the European Union, extending it into Central Europe. The range of differences between regions in terms of ecological, physical, climatic, economic, demographic and cultural conditions will become very wide indeed. Taking these differences serious may well call for a rather flexible rural development policy capable of meeting the specific needs of a particular region. This policy framework, possibly in a menu form, would have to address the specific needs and qualities characteristic of such a wide range of different rural regions. In other words: a European policy framework capable of celebrating unity in diversity!

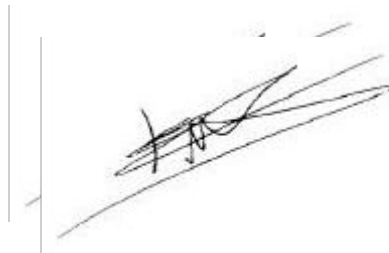
In order to study whether particular regions do find themselves in corresponding situations and would benefit from such rather more appropriate rural development policies

adapted to their specific needs, we invited the national Agricultural Economics Research Institute LEI to undertake this study. Its findings certainly make interesting reading now that the discussion on the future of the CAP is in full swing. We hope it may make its contribution to this on-going dialogue between the member states of the EU. Towards this end it provides some interesting insights and raises pertinent questions.

Last, but not least, we wish to thank the researchers for the tenacious work they undertook in carrying out this study, most notably Dr. Ida Terluin and Drs. Gabe Venema. We are also indebted to Drs. Geerte Cotteleer, Dr. Aris Gaaff and Ir. Piet Rijk for their help in the case study analysis, to Frans Godeschalk for processing data, and to Tessa van Dongen for the layout of this report. For their contributions as members of the advisory committee overseeing the research, we wish to thank my colleagues in the Ministry of Agriculture, Nature Management and Fisheries, Ir. Alberthe Papma, Drs. Corné van Alphen, Ir. Nico Beun, Drs. Henk Riphagen and Drs. Koos van Wissen.



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The Hague, January 2003

# Summary

## *Objective of this study*

This report presents a comparative analysis of the socio-economic situation and the Rural Development Plans (RDPs) of eight regions in the EU: four intermediate rural regions (Northern Netherlands, Lower Saxony, Wales and Emilia Romagna) and four most urban regions (Southern Netherlands, North Rhine-Westphalia, Flanders and Lombardia). Rural Development Plans are designed in the scope of the second pillar of the Common Agricultural Policy (CAP). In particular, the focus is on the question whether the menu approach of the second pillar enables EU member states and regions to design Rural Development Plans with a tailor-made set of measures which address their specific rural development needs. Based on the comparative analysis of the eight case study regions, recommendations for a future common rural development policy are formulated suiting the specific needs of the different types of regions in the EU.

## *Selection of case study regions*

In this study, we used a regional division of EU 15 into 108 regions. First, we classified these regions according to population density into three groups: most rural regions, intermediate rural regions and most urban regions. In this typology, Northern Netherlands is classified as an intermediate rural region, whereas the other three regions in the Netherlands (East, West and South) are classified as most urban regions. Second, we identified three intermediate rural regions - well-distributed across Europe - which have more or less the same socio-economic characteristics as the Northern Netherlands: Lower Saxony, Wales and Emilia Romagna. In the same way, we also identified three most urban regions, which have more or less the same socio-economic characteristics as the Southern Netherlands: North Rhine-Westphalia, Flanders and Lombardia. Together, these eight regions form our set of case studies. The four intermediate rural regions have in common that they experience pressure of adjacent urban regions, which claim space for recreation, nature, housing etc., whereas the group of most urban regions are characterized by a high population density and increasing pressure from intensive agricultural production, which negatively affects the quality of environment, water, nature and landscape in these regions.

## *Comparative analysis of case studies in the four intermediate rural regions*

The key priorities for action in the Rural Development Plans (RDPs) in each of the four intermediate rural regions coincide with those announced in Agenda 2000: (1) strengthening the agricultural and forestry sectors; (2) improving the competitiveness of rural areas; and (3) preserving the environment and rural heritage. The emphasis in the expenditure in all four RDPs is on the priority of preserving the environment and rural heritage. In Wales,

this is an absolute top priority, absorbing over 90% of the financial means, in Northern Netherlands 72% of the RDP public budget is reserved for this priority, in Lower Saxony 51% and in Emilia Romagna 46%. Especially in Lower Saxony and Emilia Romagna, a considerable part of the money is also reserved for the priorities of strengthening the agricultural and forestry sectors and improving the competitiveness of rural areas. Our analysis of the socio-economic situation in the four intermediate rural regions revealed that these regions face difficulties with regard to the preservation of the environment and the competitiveness of some rural parts. However, given the relatively sound situation of the agricultural structure, some doubts can be raised about the identification of strengthening the agricultural and forestry sectors as development priority in the RDPs.

In order to achieve the development priorities of the RDP, regions can use a menu of 22 rural development measures, listed (a) to (v) according to Regulation (EC) No. 1750/99. It appears that the differences in the planned measures in order to realize the priorities of strengthening the agricultural and forestry sectors and of improving the competitiveness of rural areas are not very large between the RDPs of the four regions. However, this is not the case for achieving the priority of preserving the environment and rural heritage. In Wales and Emilia Romagna, measures planned under this priority refer mainly to compensations in less favoured areas (LFA) (e) and agri-environmental measures (f). Although in the Northern Netherlands and Lower Saxony these two measures are also intended to achieve the priority of preserving the environment and rural heritage, in these two regions a number of measures under article 33 play a major role in this priority as well. In the Northern Netherlands, an important measure in this respect is reparcelling (k), in particular the purchase of agricultural land for conversion into nature and recreation area, agricultural water resource management (q) and protection of the environment in connection with agriculture (t). In the RDP of Lower Saxony, important measures in achieving the priority of preserving the environment and rural heritage are coastal protection and inland flood prevention by means of dyke-reinforcements and improvements (u) and to a lesser extent reparcelling (k).

#### *Comparative analysis of case studies in the four most urban regions*

On the whole, the results of the analysis of the RDPs in the four most urban regions do not differ largely from those of the analysis in the intermediate rural regions. The four most urban regions all identified the same rural development priorities: (1) strengthening the agricultural and forestry sectors; (2) improving the competitiveness of rural areas; and (3) preserving the environment and rural heritage. However, in contrast to the RDPs in the intermediate rural regions, the priority of preserving the environment and rural heritage does not always absorb the largest part of the financial means. In the Southern Netherlands it can be said to be a top priority, as about 70% of the RDP budget is reserved for it. In North Rhine-Westphalia just over 50% of the RDP budget will be used for this priority of preserving the environment and rural heritage, in Lombardia 45% and in Flanders 23%. In this last region, a substantial part of the RDP budget is reserved for the priority of strengthening the agricultural and forestry sectors. In all four regions, the share of the priority of improving the competitiveness of rural areas in the RDP budget is moderate, varying from 0.1% in Flanders to 13% in the Southern Netherlands. In order to achieve the priority of

preserving the environment and rural heritage, all four regions intend to implement compensations in LFA (e) and agri-environmental measures (f). In the Southern Netherlands, North Rhine-Westphalia and Flanders, a number of measures under article 33 play a major role towards achieving this priority as well. In all three regions, measures on protection of the environment in connection with agriculture (t) are intended. In addition, in the Southern Netherlands and North Rhine-Westphalia reparation (k) is also an important measure for achieving the priority of preserving the environment and rural heritage. Finally, in the RPD of the Southern Netherlands agricultural water resource management (q) is also included under this priority.

Despite the menu approach in the Rural Development Regulation, it appears that in the Rural Development Plans of our case study regions a rather large number of measures is implemented in each case. Although we found from our analysis of the socio-economic situation in the case study regions that strengthening of the agricultural and forestry sectors can not be said to be a real rural development priority, all case study regions included measures to achieve this aim. In a sense, the implementation of a wide range of measures aimed at various priorities in the RDP, involves a risk to fragment financial resources and may result in relieving the rural needs of a region insufficiently. Therefore, in order to suit measures to the region's rural development needs properly, it should be considered to use the menu approach in such a way that one's plate is not overloaded with all kinds of different food, but that the plate will only be filled with ingredients according to the regional diet.

#### *Outline of future rural development priorities and measures in the EU*

In the Rural Development Regulation (Regulation (EC) No. 1257/99) it is not indicated which specific measures should be used to achieve each of the three rural development priorities. From the analysis of the RDPs in the eight case study regions it appears that the measures a (investments in agricultural holdings), h (afforestation of agricultural land) and i (other forestry measures) are usually implemented to contribute to the rural development priority of strengthening the agricultural and forestry sectors, whereas measures e (less favoured areas and areas with environmental restrictions) and f (agri-environment) are in all case study regions used to achieve the rural development priority of preserving the environment and rural heritage. On the other hand, measures (m)-(u) - all part of article 33 of the Rural Development Regulation (promoting the adaptation and development of rural areas) - are implemented in the case study regions for the realization of different rural development priorities. These findings suggest that it is not always clear which measures contribute to the achievement of which development priorities. Moreover, it appears that the three rural development priorities are formulated in such a way that they are not mutually exclusive, but that some overlap exists. For example, both the priority on strengthening the agricultural and forestry sectors and the priority on preserving the environment and rural heritage may contribute to the priority on strengthening the competitiveness of rural areas at the same time. In the assessment of the implementation and impact of the second pillar policies in the case study regions, this gives rise to some intransparency. One may well wonder whether such intransparency could be avoided by a

reformulation of rural development priorities and measures in such a way, that overlap no longer occurs.

For the purpose of reformulating the rural development priorities, we give a design of supply and demand in the rural economy (Fig. 1). The mix of producers, products and consumers in the rural economy - which are indicated in the figure - differs among regions in the EU. Given this outline of the rural economy, for transparency's sake we think it is useful to link development priorities to each of the relationships between supplier and product distinguished in Figure 1, and to formulate the five following mutually excluding rural development priorities:

- a. strengthening sustainable production of agricultural and forest products (i.e. food-stuffs, feed and forest products);
- b. stimulating the production of landscape and nature and sound environmental management by farmers;
- c. encouraging agrotourism and other non-agricultural activities on farm;
- d. enhancing the production of landscape and nature and sound environmental management by nature conservation organizations (including improvement of the conditions of landscape and nature);
- e. consolidating economic activities of the industrial and services sectors in rural areas.

It should be noted that these five development priorities are not new, but a reformulation of the three rural development priorities of Agenda 2000 only. This also implies that the rural development priorities address a sectorial and a territorial function simultaneously, as may be distinguished in the current second pillar as well. The first three development priorities are directed at the agricultural sector, and as such, they may be characterized as sectorial policy: rural development policy coincides with agricultural policy. On the other hand, development priority (e) is concerned with the industrial and services sector, which means that in this case rural development policy may be considered territorial policy. Priority (d) on enhancing the production of landscape and nature by nature conservation organizations may be seen both in terms of sectorial or territorial policies, depending on whether these nature conservation organizations are considered as part of the agricultural sector or as a part of the services sector.

As a next step, we suggest for each of our five distinguished rural development priorities a set of rural development measures which can be implemented to achieve them. On the whole, our suggested set of rural development measures does not differ substantially from the current menu of 22 rural development measures. This is because our analysis of the 22 RDR measures did not result in the identification of main gaps in the menu of measures. Hence, we do not propose to extend the current menu of RDR measures, with the exception of the introduction of a new measure on a further strengthening of quality assurance and certification schemes, so as to anticipate the proposals in the Mid-Term Review. In addition, we propose to skip measure (t) on the protection of the environment in connection with agriculture, forestry and landscape conservation, and measure (u) on re-

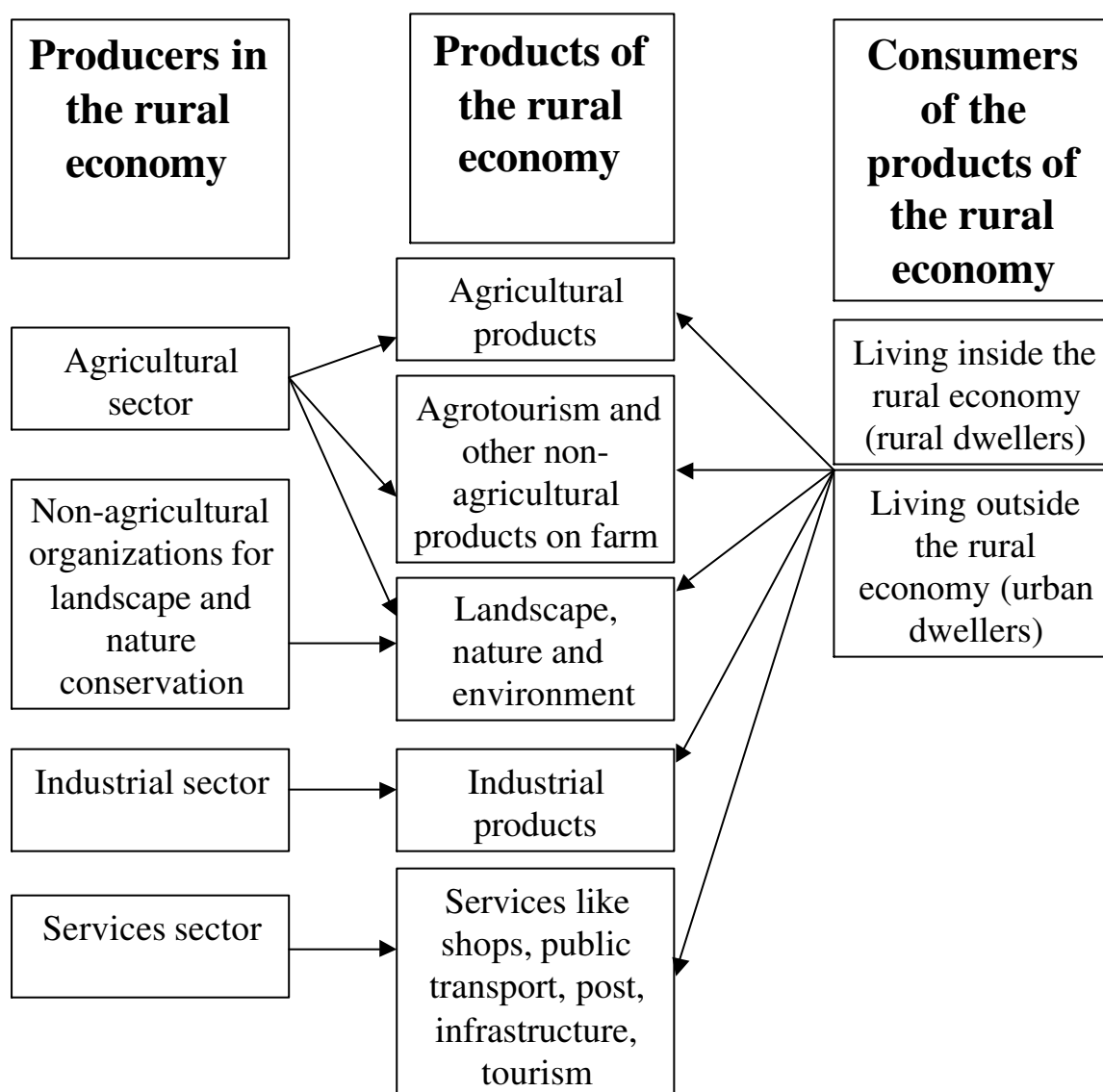


Figure 1 Supply and demand in the rural economy

storing agricultural production potential damaged by natural disasters, and to include measures (j) and (v) into other RDR measures. Finally, in order to prevent the situation that a RDR measure may contribute to more than one rural development priority, we think it may be useful to split some RDR measures into more specific measures, contributing just to one rural development priority. This would increase the transparency in the relationship of RDR measures and rural development priorities. This is proposed more specifically for measures (i) on other forestry measures, (k) on reparation and (q) on agricultural water resources management.

*Towards regional differentiation of rural development policy in the EU*

The menu of rural development measures suggested in this study is rather extensive in order to suit the wide range of socio-economic, ecological and physical circumstances in the EU regions. However, this long list does not imply that regions need to include all these measures in their rural development plans. On the contrary, we propose that regions would select only those measures in their rural development plan which really address the rural development needs in their region, even if this results in a rural development plan with only one or two rural development measures. Such an approach of selecting rural development measures according to regional needs will result in a large variation in rural development measures implemented and may be considered regional differentiation of EU rural development policy. Such an approach also requires a flexible attitude of the EU Commission in agreeing to regionally differentiated rural development plans.



# Samenvatting

## *Doel van het onderzoek*

In dit rapport wordt een vergelijkende analyse gemaakt van de sociaal-economische situatie en de plattelandsontwikkelingsplannen (POP's) in acht regio's in de EU: vier intermediaire rurale regio's (Noord-Nederland, Nedersachsen, Wales en Emilia Romagna) en vier meest urbane regio's (Zuid-Nederland, Nordrhein-Westfalen, Vlaanderen en Lombardije). Plattelandsontwikkelingsplannen worden opgesteld in het kader van de tweede pijler van het Gemeenschappelijk Landbouwbeleid (GLB). In het bijzonder is de aandacht gericht op de vraag of het huidige menu van maatregelen van de tweede pijler voldoende ruimte biedt aan EU-lidstaten en regio's om plattelandsontwikkelingsplannen te maken die toegesneden zijn op hun specifieke plattelandsontwikkelingsproblemen. Op basis van de vergelijkende analyse in de acht case-studiegebieden worden aanbevelingen gedaan voor de inrichting van het toekomstig EU-plattelandsbeleid, waarbij rekening wordt gehouden met de uiteenlopende plattelandsproblemen in de verschillende regio's in de EU.

## *Selectie van regio's voor case-studies*

In deze analyse hebben we een regionale indeling van de EU-15 in 108 regio's gebruikt. Deze regio's hebben we eerst ingedeeld in drie groepen op basis van de bevolkingsdichtheid: meest rurale regio's, intermediaire rurale regio's en meest urbane regio's. Noord-Nederland is volgens deze indeling een intermediaire rurale regio terwijl de overige delen van Nederland (Oost, West en Zuid) als meest urbane regio's zijn geclassificeerd. Vervolgens hebben we drie intermediaire rurale regio's geselecteerd die min of meer dezelfde sociaal-economische kenmerken hebben als Noord-Nederland en die redelijk verspreid liggen over Europa: Nedersachsen, Wales en Emilia Romagna. Op dezelfde manier hebben we ook drie meest urbane regio's gekozen die qua sociaal-economische kenmerken sterk op Zuid-Nederland lijken: Nordrhein-Westfalen, Vlaanderen en Lombardije. Samen vormen deze acht regio's onze set van case-studiegebieden. De vier intermediaire rurale regio's ondervinden druk van aangrenzende stedelijke regio's, die ruimte voor recreatie, natuur, huisvesting en dergelijke claimen, terwijl de vier meest urbane regio's te maken hebben met een hoge bevolkingsdruk en een toenemende intensivering van de landbouw, die de kwaliteit van milieu, water, natuur en landschap bedreigen.

## *Vergelijkende analyse van de case-studies in de vier intermediaire rurale regio's*

De prioriteiten van de plattelandsontwikkelingsplannen in alle vier intermediaire rurale regio's zijn gelijk aan de prioriteiten die in Agenda 2000 worden genoemd: (1) versterking

van de landbouw- en bosbouwsector; (2) versterking van de concurrentiepositie van plattlandsgebieden; en (3) de instandhouding van het milieu en het landelijk erfgoed. De nadruk in de uitgaven in alle vier POP's ligt op de prioriteit voor de instandhouding van het milieu en het landelijk erfgoed. In Wales, waar meer dan 90% van het budget voor deze prioriteit is uitgetrokken, kan dit als een topprioriteit worden aangemerkt. In Noord-Nederland is 72% van het budget bestemd voor deze prioriteit, in Nedersachsen 51% en in Emilia Romagna 46%. Vooral in Nedersachsen en Emilia Romagna wordt ook een aanzienlijk deel van het budget aangewend voor de prioriteiten 'versterking van de landbouw- en bosbouwsector' en 'versterking van de concurrentiepositie van plattlandsgebieden'. Onze analyse van de sociaal-economische situatie in de vier intermediaire rurale regio's toont aan dat deze regio's te maken hebben met milieuproblemen en met een achterblijvende concurrentiepositie van sommige delen van het platteland. Echter, gelet op de relatief goed ontwikkelde landbouwstructuur kunnen vraagtekens gezet worden bij het in de POP's aanwijzen van de versterking van de landbouw- en bosbouwsectoren als ontwikkelingsprioriteit.

Om de prioriteiten van het POP te realiseren, kunnen regio's gebruik maken van een menu van 22 plattlandsontwikkelingsmaatregelen, die volgens EU-Verordening 1750/99 zijn genummerd van (a) tot (v). Het blijkt dat er geen grote verschillen bestaan tussen de POP's in de vier intermediaire regio's waar het gaat om voorgenomen maatregelen om de landbouw- en bosbouwsector te versterken en de concurrentiepositie van de plattlandsgebieden te verbeteren. Er zijn echter wel duidelijke verschillen als het gaat om de prioriteit voor instandhouding van het milieu en het landelijk erfgoed. Wales en Emilia Romagna willen hiervoor vooral landbouwmilieumaatregelen (f) en compenserende betalingen in probleemgebieden (w.o. bergboerengebieden en gebieden met specifieke beperkingen op milieugebied) (e) inzetten. Hoewel Noord-Nederland en Nedersachsen deze maatregelen ook gebruiken, willen deze twee regio's vooral ook gebruik maken van zogenaamde artikel 33-maatregelen om de prioriteit voor milieu en landelijk erfgoed te realiseren. In Noord-Nederland vormt herverkaveling (k) daarbij een belangrijk instrument, waarbij het vooral gaat om aankoop van landbouwgronden voor natuur- en recreatiedoeleinden, alsmede waterbeheer in de landbouw (q) en milieubehoud in samenhang met land- en bosbouw en landschapsbeheer (t). In het POP van Nedersachsen zijn kustbescherming door middel van dijkversterkingen en -verhogingen (u) en in mindere mate herverkaveling (k) de belangrijkste maatregelen om de prioriteit voor de instandhouding van het milieu en landelijk erfgoed te realiseren.

#### *Vergelijkende analyse van de case-studies in de vier meest urbane regio's*

De resultaten van de analyse van de plattlandsontwikkelingsplannen in de vier meest urbane regio's wijken slechts weinig af van die in de intermediaire rurale regio's. Alle vier meest urbane regio's identificeren dezelfde prioriteiten in hun POP's, namelijk: (1) versterking van de landbouw- en bosbouwsector; (2) versterking van de concurrentiepositie van plattlandsgebieden; en (3) de instandhouding van het milieu en het landelijk erfgoed. Maar in tegenstelling tot de vier intermediaire rurale regio's gaat in de meest urbane regio's het grootste deel van het budget niet altijd naar de prioriteit voor instandhouding van het milieu en het landelijk erfgoed. Alleen in Zuid-Nederland is dit met 70% van het bud-

get wel de topprioriteit. In Nordrhein-Westfalen is iets meer dan de helft van het budget van het plattelandontwikkelingsplan hiervoor gereserveerd, in Lombardije en Vlaanderen is dit respectievelijk 45% en 23%. In Vlaanderen is een aanzienlijk deel van het budget gereserveerd voor de prioriteit 'versterking van de landbouw- en bosbouwsector'. Voor alle vier regio's geldt dat het aandeel van de prioriteit 'versterking van de concurrentiepositie van plattelandgebieden' in het totale budget bescheiden is, variërend van 0,1% in Vlaanderen tot 13% in Zuid-Nederland.

Om de prioriteit voor instandhouding van het milieu en het landelijk erfgoed te kunnen realiseren, willen de onderzochte meest urbane regio's alle vier gebruik maken van maatregel (e) vergoedingen voor probleemgebieden en (f) landbouwmilieumaatregelen. In Zuid-Nederland, Nordrhein-Westfalen en Vlaanderen worden hiervoor ook een aantal artikel 33-maatregelen ingezet. Zo hebben deze regio's alle drie gekozen voor maatregel (t) gericht op milieubehoud in samenhang met land- en bosbouw en landschapsbeheer. In aanvulling daarop is met name in Zuid-Nederland en in Nordrhein-Westfalen herverkaveling (k) opgenomen als belangrijk instrument om de instandhouding van het milieu en het landelijk erfgoed te realiseren. Tenslotte valt in Zuid-Nederland ook het waterbeheer in de landbouw (q) onder deze prioriteit.

Ondanks de menubnadering van de Kaderverordening Plattelandontwikkeling (EU-Verordening 1257/99) zijn in elk van de POP's in onze case-studiegebieden veel verschillende maatregelen naast elkaar opgenomen. Hoewel uit de analyse van de sociaal-economische situatie in de case-studiegebieden naar voren komt dat versterking van de land- en bosbouwsector geen echt knelpunt vormt in de plattelandontwikkeling, hebben alle case-studiegebieden wel maatregelen ingezet voor deze prioriteit. De opname van een breed scala aan maatregelen gericht op het realiseren van meerdere prioriteiten in plattelandontwikkelingsplannen brengt het risico van versnippering van financiële middelen met zich mee, waardoor het gevaar ontstaat dat aan de werkelijke behoeften van een gebied onvoldoende tegemoet kan worden gekomen. Om de maatregelen gericht af te stemmen op de problemen in de regio, zou de menubnadering zo moeten worden gebruikt dat het bord niet overvol wordt geschept met allerlei verschillende hapjes, maar dat het alleen wordt gevuld met ingrediënten die aansluiten bij het regionaal benodigde dieet.

### *Schets van toekomstige plattelandontwikkelingsprioriteiten en -maatregelen in de EU*

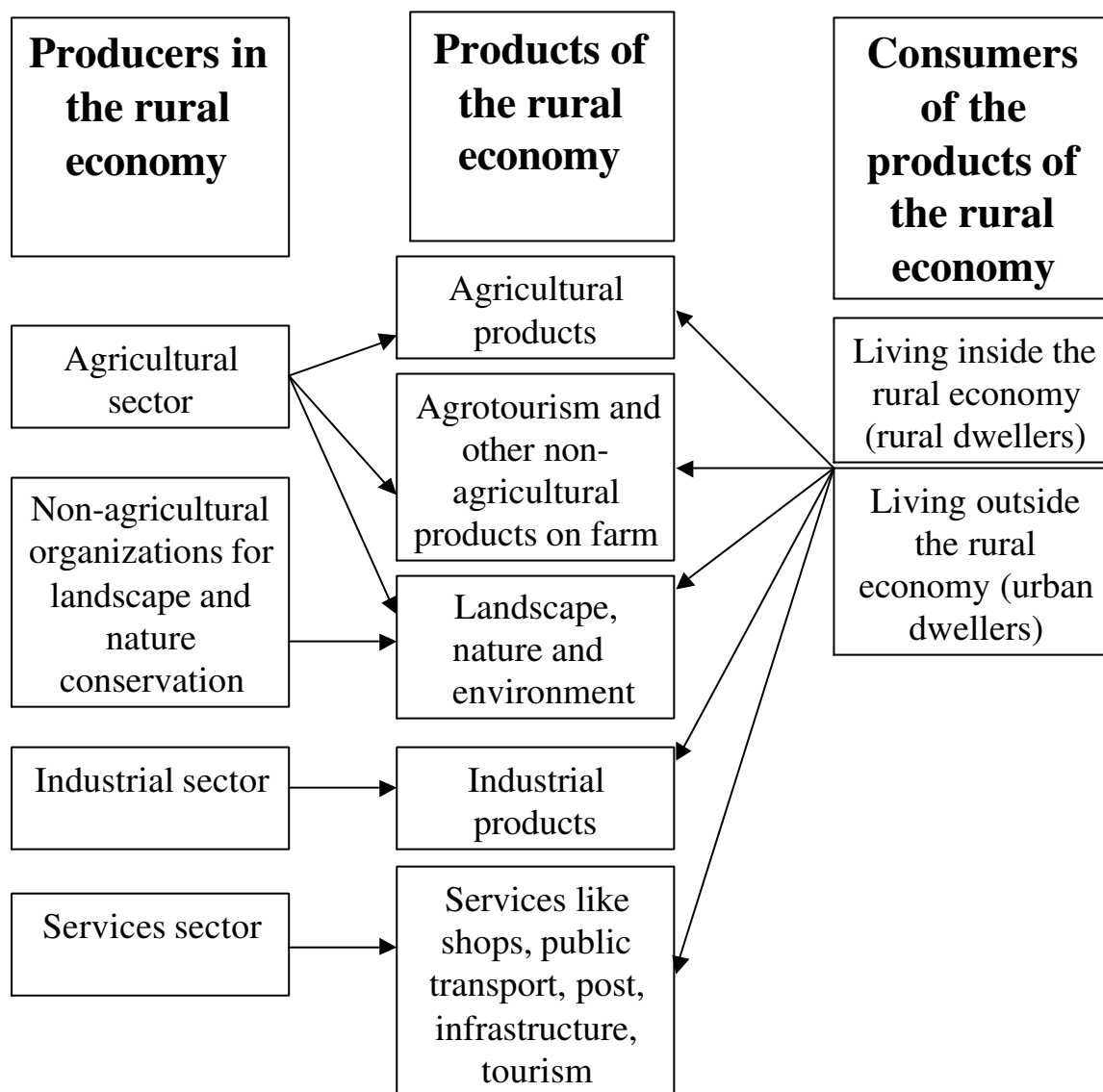
In de Kaderverordening Plattelandontwikkeling wordt niet aangegeven welke specifieke maatregelen moeten worden gebruikt om de drie plattelandontwikkelingsprioriteiten te realiseren. Uit de analyse van de plattelandontwikkelingsplannen in de acht case-studiegebieden komt naar voren dat de maatregelen (a) investeringen in landbouwbedrijven, (h) bebossing van landbouwgronden en (i) overige bosbouwmaatregelen vooral worden ingezet om de prioriteit 'versterking van de landbouw- en bosbouwsector' te realiseren. De maatregelen (e) probleemgebieden en (f) landbouwmilieumaatregelen worden in alle case-studiegebieden ingezet om de plattelandontwikkelingsprioriteit 'instandhouding van het milieu en het landelijke erfgoed' te bereiken. De maatregelen (m) tot (u) - alle onderdeel van artikel 33 (bevorderen van de geïntegreerde ontwikkeling van het platteland) van de Kaderverordening - worden voor meerdere prioriteiten tegelijk ingezet. Hieruit komt naar voren dat het niet altijd duidelijk is welke maatregelen een bijdrage leveren aan

het realiseren van welke prioriteiten. Bovendien blijkt dat de drie plattelandsontwikkelingsprioriteiten zo zijn geformuleerd dat ze elkaar niet volledig uitsluiten en dat er zelfs sprake is van enige overlap. Zo kunnen zowel de prioriteit 'versterking van de land- en bosbouwsector' als de prioriteit 'instandhouding van het milieu en het landelijk erfgoed' bijvoorbeeld ook bijdragen aan de realisatie van de prioriteit 'versterking van de concurrentiepositie van plattelandsgebieden'. Bij de beoordeling van de uitvoering en effecten van de tweede pijler van het gemeenschappelijk landbouwbeleid in de studiegebieden brengt dit de nodige ondoorzichtigheid met zich mee. Men kan zich afvragen of die ondoorzichtigheid kan worden vermeden door een zodanige herformulering van ontwikkelingsprioriteiten en in te zetten maatregelen dat overlap zich niet langer voordoet.

Om te komen tot een herformulering van de plattelandsontwikkelingsprioriteiten is een schematisch overzicht opgesteld van de verschillende vragers en aanbieders binnen de plattelandseconomie (Fig. 1). De mix van producenten, producten en consumenten - zoals geïllustreerd in Figuur 1 - verschilt per regio in de EU. Vanuit dit overzicht van de plattelandseconomie lijkt het nuttig de plattelandsontwikkelingsprioriteiten te koppelen aan de in Figuur 1 onderscheiden relaties tussen producenten en plattelandseconomie. We kunnen dan de volgende vijf elkaar uitsluitende plattelandsontwikkelingsprioriteiten definiëren:

- a. versterking van het duurzaam produceren van agrarische producten en bosbouwproducten (voedsel, veevoer en bosproducten);
- b. stimulering van de productie van landschap en natuur en solide milieumanagement door agrariërs;
- c. bevordering van agrotourisme en andere niet-agrarische activiteiten op agrarische bedrijven;
- d. stimulering van de productie van landschap en natuur en solide milieumanagement door natuurbeheerorganisaties (inclusief de verbetering van de toestand van landschap en de natuur);
- e. aanmoediging van economische activiteiten van de industrie- en dienstensector in plattelandsgebieden;

Hierbij moet worden opgemerkt dat bovenstaande vijf ontwikkelingsprioriteiten niet nieuw zijn, maar eerder een herschikking vormen van de drie plattelandsontwikkelingsprioriteiten uit Agenda 2000. Dit betekent ook dat de plattelandsontwikkelingsprioriteiten tegelijkertijd betrekking hebben op zowel een sectorale functie als een territoriale functie, net zoals dat het geval is in het huidige beleid van de tweede pijler. De ontwikkelingsprioriteiten (a) t/m (c) zijn gerelateerd aan de agrarische sector, en kunnen als sectorbeleid worden gekenschetst. Het plattelandsontwikkelingsbeleid valt hier samen met het landbouwbeleid. Aan de andere kant is prioriteit (e) gerelateerd aan de industrie- en dienstensector. In dit geval kan plattelandseconomie worden opgevat als territoriaal beleid. Prioriteit (d) voor stimulering van de productie van landschap en natuur en solide milieumanagement door natuurbeheerorganisaties kan zowel worden beschouwd als sectoraal beleid of als territoriaal beleid, afhankelijk of de natuurbeheerorganisaties onderdeel zijn van de agrarische sector of van de dienstensector.



*Figuur 1 Vraag en aanbod in de plattelandseconomie*

Als volgende stap stellen we voor elk van de vijf plattelandsontwikkelingsprioriteiten een groep maatregelen voor, waarmee de prioriteiten kunnen worden gerealiseerd. Gemiddeld wijkt ons geheel van plattelandsontwikkelingsmaatregelen niet veel af van het huidige menu van 22 maatregelen. Dat komt doordat we in onze analyse geen grote hiaten in het menu van maatregelen hebben geconstateerd. We stellen daarom voor om het huidige menu niet uit te breiden, met uitzondering van een nieuwe maatregel gericht op het verder versterken van kwaliteitsgaranties en certificatie-trajecten, zodat kan worden ingespeeld op de voorstellen in de Mid-Term Review. Daarnaast stellen we voor om de huidige maatregelen (t) milieubehoud in samenhang met land- en bosbouw en landschapsbeheer en (u) herstel van

door een natuurramp beschadigd agrarisch productiepotentieel te schrappen, en de maatregelen (j) grondverbetering en (v) financiële instrumentering onder te brengen in andere maatregelen. Tenslotte, om te voorkomen dat een maatregel kan bijdragen aan meerdere ontwikkelingsprioriteiten tegelijk, denken we dat het nuttig is om een aantal maatregelen te splitsen in meer specifieke maatregelen, die slechts een bijdrage leveren aan één ontwikkelingsprioriteit. De transparantie in de relaties tussen maatregelen en prioriteiten neemt daardoor toe. Een dergelijke splitsing wordt voorgesteld voor de huidige maatregelen (i) overige bosbouwmaatregelen, (k) herverkaveling en (q) waterbeheer in de landbouw.

*Naar een regionale differentiatie van het EU- plattlandsbeleid*

Om aan te kunnen sluiten bij de uiteenlopende sociaal-economische, ecologische en natuurlijke omstandigheden in de EU regio's is het in deze studie voorgestelde menu aan maatregelen voor plattlandsontwikkeling nogal uitgebreid. De veelheid aan maatregelen betekent echter niet dat regio's ook alle maatregelen in hun plattlandsontwikkelingsplannen op moeten nemen. In tegendeel, we stellen juist voor dat regio's alleen die maatregelen kiezen, die ook daadwerkelijk aansluiten bij hun plattlandsproblemen, zelfs al zou dit leiden tot plattlandsontwikkelingsplannen met slechts een of twee maatregelen. Zo'n benadering waarbij maatregelen worden geselecteerd afhankelijk van de problematiek in de regio zal resulteren in een grote variatie aan toegepaste maatregelen en kan als regionale differentiatie van het EU-plattlandsbeleid worden beschouwd. Een dergelijke benadering vereist een flexibele houding van de Europese Commissie inzake het verlenen van toestemming voor regionaal gedifferentieerde plattlandsontwikkelingsplannen.

# 1. Introduction

## *Rural development policy as second pillar of the CAP*

At present the European agricultural sector faces a number of challenges and realities, of which the most important are globalisation of world trade, consumer-led quality requirements and EU enlargement. In the Agenda 2000 reform of the Common Agricultural Policy (CAP), the shifts from price support to direct payments - already initiated in the 1992 reform - are deepened and extended. Together with these shifts in market and price policy, the European Commission launched a package of rural development policy measures (Regulation (EC) No. 1257/99), which were announced as the 'second pillar' of the CAP. This second pillar aims to support the multifunctional role of agriculture, to protect both the environment and the natural and cultural heritage, and to encourage new sources of income and employment in rural areas. Although the European Commission introduced the second pillar as 'the new rural development policy' (EC, 1999), in fact it merely is a repackaging of existing measures: the common agricultural structural policy, the accompanying measures of the Mac Sharry reform and the objective 5b policy measures. The 5b measures have been put together in the so-called article 33, targeted at promoting the adaptation and development of rural areas, which include land parcelling, development of key services in rural areas, renovation of villages and protection of heritage, promotion of tourism and craft activities etc. Despite the fact that the contents of the second pillar cannot be said to be new, the opposite applies for the way in which this package of rural development measures has to be planned and implemented. The Commission prescribes a 'menu approach', in which member states and/or regions are allowed to select those rural development measures which suit their needs best. This selection has to be reported in the so-called Rural Development Plan. In this way, opportunities for regional differentiation of rural development policy measures arises.

It appears that member states adopted the menu approach of the second pillar in different ways. For example, a number of member states (Denmark, Greece, France, Ireland, Luxembourg, Netherlands, Austria and Sweden) designed one Rural Development Plan (RDP) for the whole country, whereas Italy, Portugal and the UK made RDPs for regions. On the other hand, Belgium, Germany, Spain and Finland have put some rural development measures in a national RDP for the whole country, while they implement other rural development measures by means of regional RDPs.

## *Further regional differentiation of rural development policy after 2006?*

Agenda 2000 forms the frame of reference of the Union's policies in the period from 2000-2006. A mid-term review of policies is foreseen in the mid of this period and for the period after 2006 a new frame of reference will come in force, which will take both good and poor experiences with policies in the current programming period into account. It is not unlikely

that the budget for rural development policy (in the current programming period about 10% of the CAP budget) will be raised in the period after 2006 and that the emphasis on regional differentiation of policies will be strengthened. In order to participate in the discussion about the future orientation of EU rural development policy, insight in strengths and weaknesses of current practices in regional differentiation is needed. In particular, given the wide range of regional circumstances in the (enlarged) EU, varying from remote rural areas to peri-urban fringes, from traditional agriculture to highly modernised agriculture, and the widely differing range of ecological conditions, it may appear that the current menu of rural development measures has to be broadened in order to offer sufficient alternatives to meet the specific regional needs. In this context, it is interesting to analyse the selection of rural development policy measures by groups of regions with more or less similar characteristics, to examine whether these suit their regional needs sufficiently, and what regions can learn from each other in this respect. The insights gained by such analyses may be used by policy makers as input for the discussion on the future rural development policies to be pursued by the Commission, possibly in a coalition with policy makers from other regions with the same interests.

### *Objective of this study*

The objective of the present study is to make a comparative analysis of the socio-economic situation and the Rural Development Plans (RDPs) of eight regions in the EU: four intermediate rural regions (Northern Netherlands, Lower Saxony, Wales and Emilia Romagna) and four most urban regions (Southern Netherlands, North Rhine-Westphalia, Flanders and Lombardia). Together these eight regions form our set of case studies. The four intermediate rural regions have in common that they experience pressure of adjacent urban regions, which claim space for recreation, nature, housing etc., whereas the group of most urban regions are characterized by a high population density and increasing pressure from intensive agricultural production, which negatively affects the quality of environment, water, nature and landscape in these regions. For the analysis of the Rural Development Plans, we used the original Rural Development Plans which were approved by the Commission in 2000/2001. Adjustments to these original RDPs, which have been made in several cases, have not been taken into account. Based on the comparative analysis of the eight case study regions, recommendations for a future common rural development policy will be formulated suiting the specific needs of the different types of regions in the EU.

### *Plan of this study*

The organization of this study is as follows. In Chapter 2 a general introduction of socio-economic indicators in EU regions is given. Then, in Chapters 3-8, we focus on the case studies in the four intermediate regions. In Chapter 3, the selection of the four case studies in the intermediate rural regions is discussed and a comparative analysis of socio-economic indicators in the four case study regions is made. In this chapter, the methodological approach of the case studies is also explained. In Chapters 4-7, we report on the socio-economic situation, RDP and other rural policies in the four case study regions. The focus



in the analysis of socio-economic situation is on six items: the function of the region, natural and cultural heritage, agriculture, other economic activities, tourism, and environmental and water concerns. In Chapter 8, a comparative analysis of the case studies in the four intermediate rural regions is made. As a next step, we turn to the case studies in the four most urban regions in Chapters 9-14. In Chapter 9, the selection of most urban regions for the case studies is discussed and a first indication of their socio-economic characteristics is given. In Chapters 10-14, we conduct the case studies in the four most urban regions in the same way as in the intermediate rural regions. Finally, in Chapter 15, recommendations for a regionally differentiated rural development policy in the EU are formulated.

## 2. Analysis of socio-economic indicators in EU regions

### 2.1 Introduction

In this chapter we analyse a number of socio-economic indicators in EU regions. For that purpose, we use a regional division of EU 15 into 108 regions. We have classified these regions according to population density into three groups: most rural regions, intermediate rural regions and most urban regions (see Annex). In order to take the differential socio-economic situation in Western and Eastern Germany into account, we have split Germany into two 'countries': Western Germany and Eastern Germany. In this typology, Northern Netherlands is classified as an intermediate rural region, whereas the other three regions in the Netherlands (East, West and South) are classified as most urban regions (Table A2.1).

The aim of the regional analysis of socio-economic indicators in this chapter is twofold:

1. to identify regions, which have more or less the same socio-economic characteristics as the Northern Netherlands. Due to the position of the Northern Netherlands in the group of intermediate rural regions, such similar regions will also belong to this group;
2. to identify regions, which have more or less the same socio-economic characteristics as the most urban regions in the Netherlands (East, West and South). Such similar regions will also belong to the group of the most urban regions.

From these two sets of intermediate rural and most urban regions, we select the case study regions in this study.

The plan of this chapter is as follows. In Section 2.2-2.10 we discuss population density, population growth, employment growth, unemployment rates, GDP/inhabitant and GVA/agricultural worker, the share of agriculture in regional employment, farm size in hectares and ESU, the share of less favoured areas (LFA), and the share of part time and pluriactive farmers. In Section 2.11 we compose a list of regions which show some correspondence with socio-economic characteristics in Northern Netherlands, followed by a list of regions with more or less similar socio-economic characteristics as in the eastern, southern and western parts of the Netherlands in the last section.

### 2.2 Population density

From Table 2.1 it can easily be seen that the Netherlands has by far the highest population density in the EU15. When we consider the average population density in the group of intermediate rural regions, it appears that the density in those regions of Belgium, Western Germany, Italy and Luxembourg are close to the average population density in the Dutch

group. Belgium and France are countries whose average population density in the most urban regions is more or less at the same level as that in the Dutch most urban regions.

The population density in Northern Netherlands is 197 inhabitants/km<sup>2</sup>. A closer look at individual intermediate rural regions with an average population density in the range between 140 and 250 inhabitants/km<sup>2</sup> shows that these are located in Austria, Belgium, France, Eastern Germany, Western Germany, Italy, Luxembourg, Spain and the United Kingdom (Table A2.2). These regions form a first selection of regions with some similarity with the Northern Netherlands.

In order to find most urban regions with a similar high population density of that of the most urban regions in the Netherlands, we listed the regions in the highest quintile of population density (Table A2.3). It appears that the population density of these regions fluctuates between 280 and 6000 inhabitants/km<sup>2</sup>. The list includes regions from Belgium, Germany, France, Greece, Italy, Spain and the UK.

Table 2.1 Population density in EU 15 regions, 1998 (inhabitants/km<sup>2</sup>)

	Most rural	Intermediate rural	Most urban	National average
Belgium	-	198	503	334
Denmark	-	123	-	123
Germany (West)	-	174	400	260
Germany (East)	83	141	410	161
Greece	51	60	906	80
Spain	23	62	242	78
France	68	124	611	107
Ireland	-	53	-	53
Italy	71	169	361	191
Luxembourg	-	165	-	165
Netherlands	-	197	551	464
Austria	68	109	-	96
Portugal	27	151	-	107
Finland	8	51	-	17
Sweden	12	77	-	22
United Kingdom	-	133	419	243

'-' denotes that the group does not exist.

Source: Own calculations based on Eurostat, Luxembourg.

## 2.3 Population growth

Apart from Luxembourg, whose population increased by over 1% p.a. during the last decade, and Eastern Germany, Spain, Italy and Portugal, which had an almost stable population, all EU countries experienced a population growth of about half a per cent per annum during the 1990s. In all countries, with the exception of Eastern Germany, the Netherlands, Portugal and the UK, population growth in the intermediate rural regions is at the same level or exceeds the national average. Apart from Greece and Germany, a corre-

spendence in population growth between the national average and the most urban regions can also be observed in all countries.

Table 2.2 *Population growth in EU 15 regions, 1988-1998 (% p.a.)*

	Most rural	Intermediate rural	Most urban	National average
Belgium	-	0.3	0.3	0.3
Denmark	-	0.3	-	0.3
Germany (West)	-	0.9	0.8	0.8
Germany (East)	-0.6	-1.0	1.1	0.0
Greece	1.0	0.5	-0.1	0.5
Spain	-0.2	0.1	0.2	0.1
France	0.3	0.6	0.4	0.4
Ireland	-	0.5	-	0.5
Italy	0.0	0.0	0.1	0.0
Luxembourg	-	1.3	-	1.3
Netherlands	-	0.3	0.7	0.6
Austria	0.3	0.7	-	0.6
Portugal	-0.4	0.0	0.0	0.1
Finland	0.1	0.6	-	0.4
Sweden	0.0	0.7	-	0.4
United Kingdom	-	0.3	0.4	0.4

Source: Own calculations based on Eurostat, Luxembourg.

## 2.4 Employment growth

During the 1990s, all EU 12 member states experienced a growth in total employment, the eastern part of Germany and Italy being the exceptions (Table 2.3). In Eastern Germany the poor employment development is due to the transition process; in Italy it is related to the relatively high decline in agricultural employment. In most countries, the decrease in employment in the agricultural sector occurs more or less at the same rate in most rural and intermediate rural regions, whereas the reduction in agricultural employment in the most urban regions is lowest. The Netherlands is the only country in which total employment growth in intermediate rural regions exceeded that in the most urban regions in the 1990s: 2.3% versus 1.8% p.a. However, when we consider non-agricultural employment growth, intermediate rural regions in Western Germany, Spain, France, Italy and the Netherlands have a higher growth than the most urban regions.

Table 2.3 *Employment growth in the EU regions, 1989-1999 (% p.a.) a)*

		Agriculture	Non-agriculture	Total
Belgium	Intermediate rural	-2.9	1.0	0.9
	Most urban	-1.8	1.2	1.1
	National average	-2.2	1.2	1.1
Denmark	Intermediate rural	-5.0	0.5	0.3
	National average	-5.0	0.5	0.3
Germany (West)	Intermediate rural	-4.0	1.0	0.8
	Most urban	-1.5	0.9	0.8
	National average	-3.1	0.9	0.8
Germany (East) b)	Most rural	-8.5	-1.1	-1.7
	Intermediate rural	-9.6	-2.0	-2.5
	Most urban	-5.4	-1.9	-2.0
	National average	-8.2	-1.7	-2.1
Greece	Most rural	-3.6	1.9	0.0
	Intermediate rural	-2.9	1.5	0.2
	Most urban	-1.6	1.9	1.8
Spain	National average	-3.2	1.8	0.7
	Most rural	-4.8	2.2	0.9
	Intermediate rural	-4.6	1.9	0.9
	Most urban	-3.5	1.8	1.6
France	National average	-4.4	1.9	1.2
	Most rural	-4.3	1.1	0.6
	Intermediate rural	-4.6	0.6	0.4
	Most urban	-3.7	0.4	0.4
Ireland	National average	-4.3	0.7	0.5
	Intermediate rural	-2.2	4.6	3.7
	National average	-2.2	4.6	3.7
Italy	Most rural	-5.4	0.5	-0.2
	Intermediate rural	-5.2	0.4	-0.1
	Most urban	-5.4	0.2	0.0
	National average	-5.2	0.3	-0.1
Luxembourg	Intermediate rural	-5.2	1.5	1.3
	National average	-5.2	1.5	1.3
Netherlands	Intermediate rural	-3.2	2.6	2.3
	Most urban	-1.9	1.9	1.8
	National average	-2.1	2.0	1.8
Austria c)	Most rural	-3.6	1.1	0.7
	Intermediate rural	-4.1	0.1	-0.2
	National average	-4.0	0.3	0.0
Portugal	Most rural	-5.3	1.7	0.5
	Intermediate rural	-3.5	1.4	0.6
	National average	-3.7	1.4	0.6

a) No data available for Finland, Sweden and the UK; b) Growth between 1991-99; c) Growth between 1995-99.

Source: Own calculations based on Eurostat, Luxembourg.

## 2.5 Unemployment rates

The level of unemployment rates largely varies among EU countries due to country specific characteristics and differences in the phase of the economic cycle. For example, in 1999 Spain and Eastern Germany, and to a lesser extent Greece, France, Italy and Finland, have high unemployment rates, whereas Luxembourg, the Netherlands and Austria have modest unemployment levels (Table 2.4). In some countries like Belgium, Spain, and the Netherlands, unemployment rates tend to be higher in most rural and intermediate rural regions, whereas in other countries most urban regions have the highest unemployment rates.

Table 2.4 Unemployment rates in EU 15 regions, 1999 (%)

	Most rural	Intermediate rural	Most urban	National average
Belgium	-	13	7	9
Denmark	-	6	-	6
Germany (West)	-	6	7	7
Germany (East)	17	17	15	16
Greece	10	12	13	12
Spain	19	19	13	16
France	11	12	12	11
Ireland	-	6	-	6
Italy	16	12	12	12
Luxembourg	-	2	-	2
Netherlands	-	5	3	3
Austria	4	4	-	4
Portugal	5	5	-	5
Finland	14	10	-	11
Sweden	8	7	-	8
United Kingdom	-	7	6	6

Source: Own calculations based on Eurostat, Luxembourg.

## 2.6 GDP per inhabitant and GVA per agricultural worker

Within the EU the level of GDP per capita largely varies among member states: it is relatively low in Greece, Spain and Portugal and relatively high in Denmark, Western Germany and Luxembourg (Table 2.5). With the exception of Greece, the highest income per capita is found in the most urban regions and the lowest in the most rural regions, with the intermediate rural regions sandwiched in between. This pattern of lower levels in most rural regions and higher levels in most urban regions does not apply to GVA/agricultural worker, except for France and Italy. In countries like Spain, Greece, Portugal, Finland and Sweden, GVA/agricultural worker in the group of most rural regions exceeds that in intermediate rural regions, whereas in West and Eastern Germany, Spain and the Netherlands GVA/agricultural worker in intermediate rural regions is higher than that in most urban regions. These differences in GVA/agricultural worker are related to differences in the agricultural structure between regions. With a few exceptions, GVA/agricultural worker is

higher than GDP per capita. This is due to the inclusion of economically non-active people like children and the elderly in the calculation of GDP per capita.

Table 2.5 GDP/capita and GVA/agricultural worker in the EU regions, 1998

		GDP/capita		GVA/agricultural worker, in EUR
		in EUR	index EU 15=100	
Belgium	Most rural	-	-	-
	Intermediate rural	17,315	86	33,953
	Most urban	24,139	119	39,049
	National average	21,912	108	37,295
Denmark	Most rural	-	-	-
	Intermediate rural	29,265	145	47,680
	Most urban	-	-	-
	National average	29,265	145	47,680
Germany (West)	Most rural	-	-	-
	Intermediate rural	23,927	118	24,660
	Most urban	26,205	130	22,062
	National average	25,263	125	23,549
Germany (East)	Most rural	15,368	76	18,922
	Intermediate rural	15,022	74	22,049
	Most urban	18,415	91	16,661
	National average	16,648	82	19,317
Greece a)	Most rural	9,660	48	11,576
	Intermediate rural	9,793	48	10,933
	Most urban	11,538	57	26,379
	National average	10,319	51	11,581
Spain	Most rural	9,920	49	25,943
	Intermediate rural	11,391	56	18,973
	Most urban	16,035	79	19,984
	National average	13,300	66	19,938
France	Most rural	18,734	93	36,115
	Intermediate rural	19,998	99	37,750
	Most urban	28,734	142	49,435
	National average	21,684	107	37,127
Ireland	Most rural	-	-	-
	Intermediate rural	20,797	103	24,231
	Most urban	-	-	-
	National average	20,797	103	24,231

Table 2.5 GDP/capita and GVA/agricultural worker in the EU regions, 1998 (continued)

		GDP/capita		GVA/agricultural worker, in EUR
		in EUR	index EU 15=100	
Italy	Most rural	15,090	75	21,191
	Intermediate rural	17,934	89	25,408
	Most urban	19,831	98	27,045
	National average	18,473	91	25,436
Luxembourg	Most rural	-	-	-
	Intermediate rural	38,185	189	23,440
	Most urban	-	-	-
	National average	38,185	189	23,440
Netherlands	Most rural	-	-	-
	Intermediate rural	20,768	103	42,808
	Most urban	22,582	112	39,724
	National average	22,392	111	40,155
Austria	Most rural	18,948	94	15,149
	Intermediate rural	24,598	122	18,654
	Most urban	-	-	-
	National average	23,361	116	17,612
Portugal	Most rural	9,317	46	19,019
	Intermediate rural	10,165	50	4,332
	Most urban	-	-	-
	National average	10,087	50	5,452
Finland	Most rural	17,981	89	26,120
	Intermediate rural	25,052	124	21,518
	Most urban	-	-	-
	National average	22,367	111	24,352
Sweden	Most rural	22,379	111	37,317
	Intermediate rural	25,826	128	24,692
	Most urban	-	-	-
	National average	24,144	119	32,139
United Kingdom	Most rural	-	-	-
	Intermediate rural	18,956	94	n.a.
	Most urban	22,429	111	n.a.
	National average	21,258	105	n.a.

a) GVA in 1996 and number of workers in 1998.

Source: Own calculations based on Eurostat, Luxembourg.



## 2.7 Share of agriculture in regional employment

The share of agriculture in total employment has diminished to 13% or less in the most rural and intermediate regions in 1999, Greece being the exception with over 25% of its labour force still employed in the agricultural sector (Table 2.6). In all countries, the share of agriculture in total employment is highest in the most rural regions and lowest in the most urban regions.

Table 2.6 *Share of agriculture (including forestry and fisheries) in regional employment in EU 15 regions, 1999 (%)*

	Most rural	Intermediate rural	Most urban	National average
Belgium	-	3	2	2
Denmark	-	3	-	3
Germany (West)	-	4	2	3
Germany (East)	6	4	2	4
Greece	29	25	1	17
Spain	13	11	3	7
France	7	3	1	4
Ireland	-	9	-	9
Italy	8	7	4	5
Luxembourg	-	2	-	2
Netherlands	-	4	3	3
Austria	8	6	-	6
Portugal	12	13	-	13
Finland	11	4	-	6
Sweden	4	2	-	3
United Kingdom	-	2	1	2

Source: Own calculations based on Eurostat, Luxembourg.

## 2.8 Farm size in hectares and ESU

The average farm size in hectares widely varies among EU member states, both due to country specific characteristics and the composition of agricultural production. With the exception of France, the average number of hectares per farm in most rural and intermediate rural regions exceeds that in urban regions (Table 2.7). Usually, agricultural production in urban regions tends to be more intensive due to higher land prices and smaller distances to markets.

In order to compare the economic size of farms (in terms of standardized amounts of gross margins), the European Size Unit (ESU) is often used. No general pattern emerges that farm size in ESU is the highest in a specific group of regions (Table 2.8). In Belgium and the Netherlands there is even no difference in the average economic farm size in intermediate rural and most urban regions. The same applies to most rural and intermediate regions in Spain, Italy and Finland. The number of ESU per hectare can be used as an indicator for the intensity of agricultural production. On the whole, the number of ESU per

hectare in most urban regions exceeds that in intermediate rural regions (Table 2.8). With the exception of Italy and Portugal, the number of ESU per hectare in most rural and intermediate rural regions is about at the same level.

Table 2.7 *Farm size in hectares in EU 15 regions, 1997*

	Most rural	Intermediate rural	Most urban	National average
Belgium	-	33	14	21
Denmark	-	43	-	43
Germany (West)	-	25	20	23
Germany (East)	210	184	106	174
Greece	4	5	3	4
Spain	38	21	9	21
France	45	32	58	42
Ireland	-	29	-	29
Italy	11	6	5	6
Luxembourg	-	43	-	43
Netherlands	-	33	16	19
Austria	13	18	-	16
Portugal	37	6	-	10
Finland	21	27	-	24
Sweden	28	48	-	35
United Kingdom	-	70	68	69

Source: Own calculations based on Eurostat, Luxembourg.

Table 2.8 *Farm size in ESU and ESU per hectare in EU 15 regions, 1997*

	Most rural		Intermediate rural		Most urban		National average	
	ESU per holding	ESU per ha	ESU per holding	ESU per ha	ESU per holding	ESU per ha	ESU per holding	ESU per ha
Belgium	-	-	47	1.4	47	3.3	47	2.3
Denmark	-	-	57	1.3	-	-	57	1.3
Germany (West)	-	-	29	1.2	24	1.2	27	1.2
Germany (East)	121	0.6	134	0.7	87	0.8	116	0.7
Greece	5	1.4	7	1.3	4	1.5	6	1.4
Spain	11	0.3	11	0.5	9	1	11	0.5
France	36	0.8	30	1	61	1.1	35	0.8
Ireland	-	-	19	0.6	-	-	19	0.6
Italy	7	0.6	8	1.3	9	1.8	8	1.3
Luxembourg	-	-	35	0.8	-	-	35	0.8
Netherlands	-	-	84	2.6	84	5.3	84	4.5
Austria	8	0.7	13	0.7	-	-	12	0.7
Portugal	11	0.3	6	1.1	-	-	7	0.7
Finland	23	1.1	24	0.9	-	-	24	1
Sweden	18	0.6	33	0.7	-	-	23	0.7
United Kingdom	-	-	35	0.5	68	1	48	0.7

Source: Own calculations based on Eurostat, Luxembourg.

## 2.9 Less favoured areas

Less Favoured Areas (LFAs) are areas where agriculture is hampered by permanent natural handicaps like altitude, slopes, infertile land, or by unfavourable farm results. Since 1975, member states are allowed to give farmers in LFAs direct income support in order to raise farm income in the scope of the so-called LFA Directive (75/268). This income support, which is financed by the member states and partly reimbursed by the EU, consists of compensatory allowances per animal or per hectare. Since 1975, the areas classified as LFAs have increased from one-third of the Community area to about 55% in 1997. In 1997, about 1.2 million farmers (16% of EU farmers) benefited from the LFA directive (Terluin, 2001). The share of LFA in agricultural area varies among member states, depending on the severity of natural handicaps and political considerations of national authorities on opportunities for additional farm support. The share is usually highest in most rural regions and lowest in most urban regions. Till Agenda 2000, Denmark did not apply the LFA directive; in the Netherlands, application was related to the so-called 'Relatienota'.

Table 2.9 Share less favoured areas (LFA) in utilised agricultural area in EU 15 regions, 1997

	Most rural	Intermediate rural	Most urban	National average
Belgium	-	36	0	20
Denmark	-	0	-	0
Germany (West)	-	56	42	52
Germany (East)	63	30	37	47
Greece	74	58	19	66
Spain	89	78	55	79
France	41	38	0	38
Ireland	-	67	-	67
Italy	87	54	42	58
Luxembourg	-	100	-	100
Netherlands a)	-	4	6	6
Austria	90	60	-	68
Portugal	98	70	-	84
Finland	100	67	-	83
Sweden	70	21	-	47
United Kingdom	-	62	16	44

a) 1989/90.

Source: Own calculations based on Eurostat, Luxembourg.

## 2.10 Part time and pluriactive farmers

Part time farmers are defined here as farm holders who spend less than 1 Annual Work Unit (AWU) on the farm. The share of part time farmers in the group of all farmers varies from 33% in Ireland and the Netherlands to 89% in Greece (Table 2.10). With the exception of France, within countries the percentage of part time farmers is quite similar among

the three groups of regions, indicating that an urban or rural context hardly affects part time farming.

Pluriactive farmers are defined here as farm holders with other gainful activities (OGA) both on farm and off farm. The share of pluriactive farmers varies from about one fifth in Belgium, Italy, Luxembourg and the Netherlands to about the half in West Germany, Finland and Sweden. As in the case of part time farmers, within countries differences in the share of pluriactive farmers among the three groups of regions tend to be small.

Table 2.10 Share part time and pluriactive farmers in EU 15 regions, 1997 (as % of total)

	Most rural		Intermediate rural		Most urban		National average	
	part time	pluri-active	part time	pluri-active	part time	pluri-active	part time	pluri-active
Belgium	-	-	38	19	39	16	39	17
Denmark	-	-	50	35	-	-	50	35
Germany (West)	-	-	58	44	66	49	61	45
Germany (East)	71	39	73	40	72	39	72	39
Greece	90	29	88	23	95	24	89	27
Spain	83	29	71	25	83	36	76	28
France	48	24	58	28	35	18	50	25
Ireland	-	-	33	33	-	-	33	33
Italy	86	22	85	25	81	21	84	24
Luxembourg	-	-	40	17	-	-	40	17
Netherlands	-	-	31	19	33	22	33	22
Austria	74	40	69	38	-	-	70	39
Portugal	78	31	82	33	-	-	82	32
Finland	41	49	51	50	-	-	46	49
Sweden	76	60	68	56	-	-	73	59
United Kingdom	-	-	48	29	51	32	49	30

Source: Own calculations based on Eurostat, Luxembourg.

## 2.11 Intermediate rural regions with more or less similar socio-economic characteristics as the Northern Netherlands

In this section we try to compose a list of intermediate rural regions which are expected to face more or less the same rural development opportunities and threats as Northern Netherlands. As population density is a main indicator of pressure on the area, we use this as first selection criterion. Population density in the Northern Netherlands is 197 inhabitants per km<sup>2</sup>. We decided to select those intermediate rural regions which have a population density within the range of 140-250 inhabitants per km<sup>2</sup>. This resulted in a list of just over 20 re-

gions (Table A2.2). As a next step, we skipped regions with more than 9% of the labour force employed in agriculture; a decline in agricultural employment of over 6% p.a.; and a decrease in non-agricultural employment growth. Moreover, we omitted the atypical Canary and Balearic Islands. In this way, a list of 13 intermediate rural regions with more or less similar socio-economic characteristics as Northern Netherlands emerged (Tables 2.11 and 2.12). These regions are located in 7 different EU countries: Belgium, Germany, France, Italy, Luxembourg, Austria and the UK (Fig. 2.1). From this list, three regions will be selected for a case study. This selection will be discussed in the next chapter.



Figure 2.1 Map with intermediate rural regions with more or less similar socio-economic characteristics as Northern Netherlands

Table 2.11 Population and employment in selected intermediate rural regions

Region	Country	Population density, 1998	Share agriculture in total employment, 1999	Employment growth, 1989-99 (% p.a.)			Population growth, 1988-98 (% p.a.)
				Total	Non-agriculture	Agriculture	
1. Région Wallonne	BE	198	2.8	0.9	1.0	-2.9	0.3
2. Niedersachsen	GER (W)	165	4.0	1.0	1.2	-3.3	0.9
3. Bayern	GER (W)	171	4.1	0.7	1.0	-4.5	0.9
4. Schleswig-Holstein	GER (W)	175	3.2	0.7	0.8	-1.8	0.8
5. Rheinland-Pfalz	GER (W)	203	2.5	0.9	1.1	-5.3	1.0
6. Alsace	FR	208	1.9	0.1	0.2	-5.9	0.7
7. Friuli-Venezia Giulia	IT	151	4.8	0.6	0.6	-0.8	-0.2
8. Toscana	IT	153	3.3	0.0	0.2	-5.1	-0.1
9. Emilia-Romagna	IT	179	6.7	0.2	0.6	-4.0	0.1
10. Veneto	IT	244	4.7	0.6	0.9	-4.1	0.2
11. Luxembourg	LUX	165	1.9	1.3	1.5	-5.2	1.3
12. Noord-Nederland	NL	197	4.1	2.3	2.6	-3.2	0.3
13. Ostösterreich	a)AU	145	5.3	0.2	0.4	-3.1	0.6
14. Wales	UK	141	2.7	0.0	0.1	-5.0	0.3

a) Employment growth 1995-99.

Source: Own calculations based on Eurostat, Luxembourg.

## 2.12 Most urban regions with more or less similar socio-economic characteristics as the Eastern, Southern and Western Netherlands

In this section we aim to design a list of most urban regions which are expected to face more or less the same rural development opportunities and threats as the three most urban regions in the Netherlands: Eastern, Southern and Western Netherlands. As population density is a main indicator of pressure on the area, we use this as first selection criterion. We focused on regions in the highest quintile of population density, which resulted in a list of regions whose population density fluctuates between 280 and 6,000 inhabitants/km<sup>2</sup> (Table A2.3). From this list of regions, we omitted regions which:

- mainly consist of a metropolitan area with a small rural fringe (Brussels, Berlin, Hamburg and Bremen);
- have more than 5% of their labour force employed in agriculture (Campania);
- have a decrease in the non-agricultural employment growth in the 1990s (Liguria);
- face a population decrease in the 1990s (Attiki and Pais Vasco).

This procedure results in a list of 12 most urban regions which are more or less comparable to Western, Southern and Eastern Netherlands (Tables 2.13 and 2.14). These regions are located in 6 different EU countries: Belgium, Spain, Germany, France, Italy and the UK (Fig. 2.2). From these 12 regions, four regions will be selected for a case study: one from the Netherlands and three outside the Netherlands. This selection will be discussed in Chapter 9.

Table 2.12 *LFA, part time and pluriactive farmers, and farm size in selected intermediate rural regions, 1997*

Region	Country	Share LFA in agricultural area (%)	Share part time farmers (%)	Share pluriactive farmers (%)	Hectares per farm	ESU per farm
1. Région Wallonne	BE	36	38	19	33	47
2. Niedersachsen	GER (W)	57	52	35	36	44
3. Bayern	GER (W)	61	61	49	19	21
4. Schleswig-Holstein	GER (W)	38	50	31	43	48
5. Rheinland-Pfalz	GER (W)	61	63	42	19	25
6. Alsace	FR	14	65	39	24	30
7. Friuli-Venezia Giulia	IT	28	84	17	5	8
8. Toscana	IT	63	75	24	10	12
9. Emilia-Romagna	IT	32	72	17	10	15
10. Veneto	IT	32	84	23	5	8
11. Luxembourg	LUX	100	40	17	42	35
12. Noord-Nederland	NL	0	31	19	32	84
13. Ostösterreich	AU	41	66	36	17	15
14. Wales	UK	77	43	28	51	25

Source: Own calculations based on Eurostat, Luxembourg.

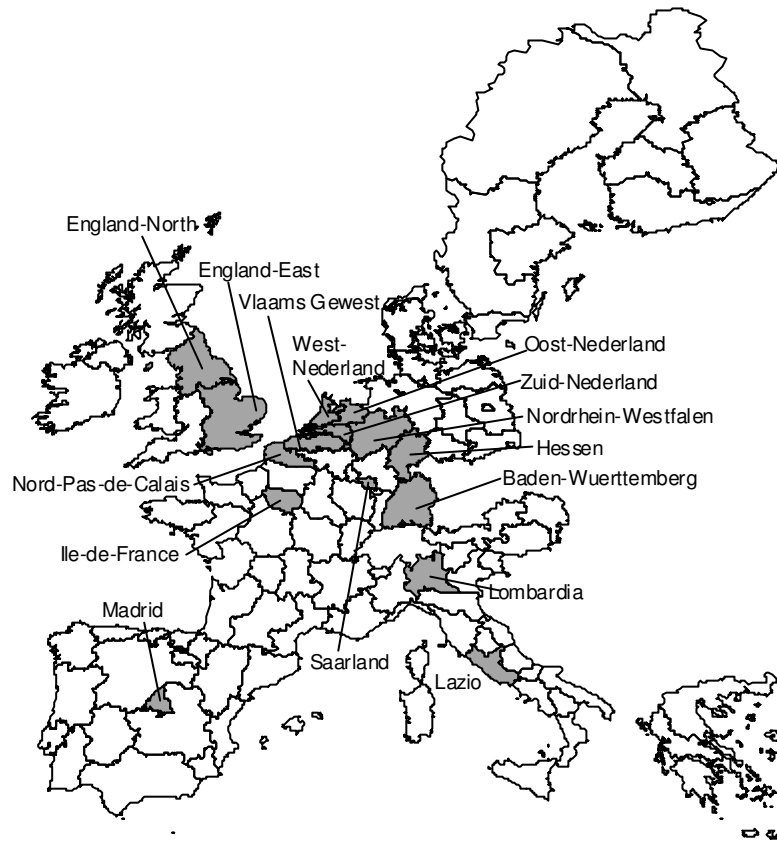


Figure 2.2 *Map with most urban regions with more or less similar socio-economic characteristics as Eastern, Southern and Western Netherlands*



Table 2.13 Population and employment in selected most urban regions

Region	Country	Population density, 1998	Share agriculture in total employment, 1999	Employment growth, 1989-99 (% p.a.)			Population growth, 1988-98 (% p.a.)
				Total	Non-agriculture	Agriculture	
1. Flanders	BE	438	2	1.2	1.3	-1.9	0.4
2. Madrid	ES	629	1	2.3	2.2	3.1	0.4
3. Nordrhein-Westfalen	GER (W)	527	2	0.9	0.9	0.4	0.7
4. Saarland	GER (W))	419	1	0.4	0.4	-2.1	0.2
5. Baden-Württemberg	GER (W)	291	2	0.9	1.0	-2.3	1.1
6. Hessen	GER (W)	286	2	0.6	0.7	-5.0	0.8
7. Île-de-France	FR	910	0	0.4	0.4	5.1	0.5
8. Nord-Pas-de-Calais	FR	322	2	0.3	0.5	-8.3	0.2
9. Lombardia	IT	377	2	0.4	0.5	-4.6	0.1
10. Lazio	IT	305	3	0.0	0.3	-6.0	0.2
11. West-Nederland	NL	844	2	1.4	1.5	-3.1	0.6
12. Zuid-Nederland	NL	488	4	2.0	2.0	0.4	0.6
13. Oost-Nederland	NL	335	4	2.4	2.6	-2.2	0.9
14. England-East	UK	446	1	n.a.	n.a.	n.a.	0.6
15. England-North	UK	379	1	n.a.	n.a.	n.a.	0.1

Source: Own calculations based on Eurostat, Luxembourg.

Table 2.14 LFA, part time and pluriactive farmers, and farm size in selected most urban regions, 1997

Region	Country	Share LFA in agricul- tural area (%)	Share part time farmers (%)	Share pluriactive farmers (%)	Hectares per farm	ESU per farm
1. Flanders	BE	0	39	16	14	47
2. Madrid	ES	22	76	31	30	10
3. Nordrhein- Westfalen	GER (W)	21	58	37	23	33
4. Saarland	GER (W))	67	71	52	33	24
5. Baden- Württemberg	GER (W)	58	70	53	17	18
6. Hessen	GER (W)	52	73	59	22	21
7. Île-de-France	FR	0	36	17	93	89
8. Nord-Pas- de-Calais	FR	0	34	18	46	51
9. Lombardia	IT	19	70	15	11	19
10. Lazio	IT	49	88	24	5	5
11. West- Nederland	NL	6 a)	27	18	17	100
12. Zuid- Nederland	NL	6 a)	35	22	14	86
13. Oost- Nederland	NL	6 a)	36	25	16	69
14. England- East	UK	2	54	34	71	78
15. England- North	UK	36	47	29	64	54

a) 1989/90; average of most urban regions in the Netherlands.

Source: Own calculations based on Eurostat, Luxembourg.

## 3. Socio-economic indicators in selected intermediate rural case study regions

### 3.1 Introduction

In the previous chapter we analysed a number of socio-economic indicators in EU regions. We concluded that chapter with a list of intermediate rural regions, whose socio-economic characteristics are more or less the same as in the Northern Netherlands. In this chapter, we select three regions for a case study from that list. This selection is discussed in Section 3.2. The three selected regions and the Northern Netherlands together form our set of case studies in intermediate rural regions. As a next step, in Section 3.3 we undertake a comparative analysis of socio-economic indicators in the three case study regions and the Northern Netherlands. This comparative analysis serves as a first introduction of the case study regions, which are analysed in more detail in Chapters 4-7. Finally in the Section 3.4, we discuss the protocol for conducting case studies in our analysis.

### 3.2 Selection of case study regions

At the end of Chapter 2 we have identified 13 intermediate rural regions, whose statistical socio-economic indicators are more or less similar to those of the Northern Netherlands (Tables 2.11 and 2.12). This list includes potential regions for case studies. Apart from statistical criteria, some more qualitative criteria also play a role in the selection of case study regions. These criteria are as follows:

- the region experiences increasing pressure from highly urbanized parts. This pressure originates from the proximity of metropolitan areas and implies additional requirements/demands as far as environmental, water, nature and landscape management as well as leisure and accessibility are concerned;
- the case study regions have to be well-distributed across Europe.

By using these two additional criteria, we have selected Lower Saxony (W. Germany), Wales (UK) and Emilia Romagna (Italy) for case studies. Lower Saxony experiences urban pressure from the Ruhr area, Wales is affected by pressure from Great London and the Midlands, and Emilia Romagna is close to Rome and Milano. Together with Northern Netherlands, which experiences pressure from the urbanized 'Randstad' (the western part of the Netherlands), these three regions form the set of four case studies in intermediate rural regions in this study.

### 3.3 Comparative analysis of socio-economic indicators in the four case study regions

The size of the case study regions rather varies: Northern Netherlands is the smallest region with over 8,000 km<sup>2</sup>, whereas Lower Saxony is the largest region with more than 47,000 km<sup>2</sup> (Table 3.1). Wales and Emilia Romagna lie in-between with both a size of about 20,000 km<sup>2</sup>. These size differences originate from the fact that we use administrative regions: regions which are used as administrative units and as base for statistical data collection. From the viewpoint of data availability, administrative regions are attractive as starting point for analyses; however, due to the fact that the size of administrative regions differs among countries due to country specific reasons, administrative regions have also some shortcomings as starting point. For pragmatic reasons, researchers often use administrative regions, and in the interpretation of the results of the comparative analysis of the regions, these size differences have to be taken into account.

Population density between the case study regions fluctuates from 141 inhabitants/km<sup>2</sup> in Wales to 197 inhabitants/km<sup>2</sup> in Northern Netherlands. Being the smallest region, Northern Netherlands has also the smallest population (1.6 million). Population in Wales is nearly 3 million, in Emilia Romagna nearly 4 million and in Lower Saxony nearly 9 million. All regions experience a population increase in the 1990s, ranging from 0.1% p.a. in Emilia Romagna to 0.9% p.a. in Lower Saxony.

Table 3.1 Area and population in the case study regions

	Northern Netherlands	Lower Saxony	Wales	Emilia Romagna
Total area (km <sup>2</sup> )	8,353	47,614	20,768	22,124
Population density, 1998 (inhabitants/km <sup>2</sup> )	197	165	141	179
Population, 1998 (1000 persons)	1,645	7,856	2,933	3,953
Population growth, 1988-1998 (% p.a.)	0.3	0.9	0.3	0.1

Source: Own calculations based on Eurostat, Luxembourg.

GDP per capita in Northern Netherlands, Lower Saxony and Emilia Romagna is just above the EU 15 average, whereas GDP per capita in Wales is almost 20% below the EU average (Table 3.2). The share of agriculture in total employment is about 3-4% in Northern Netherlands, Lower Saxony and Wales, while it is somewhat higher (7%) in Emilia Romagna. Employment growth during the 1990s was highest in Northern Netherlands, among others due to the so-called 'polder model' (i.e. close cooperation between the government, trade unions and employers). Employment growth in this region is mainly made up of part time employment. Lower Saxony experienced an employment growth in the 1990s of about 1% p.a., while employment growth stagnated in Wales and was only moderate in Emilia Romagna. Nevertheless, employment performance in Emilia Romagna was well above the

national average; in this period employment growth in Italy suffered from the public budget crisis. The decline in agricultural employment in the case study regions in the 1990s fluctuated between 3 and 5% p.a. Unemployment rates in 1999 ranged between 5 and 8%.

Table 3.2 GDP, employment growth and unemployment rates in the case study regions

	Northern Netherlands	Lower Saxony	Wales	Emilia Romagna
GDP/inhabitant, 1998 (€)	20,768	21,640	16,662	23,665
GDP/inhabitant, 1998 (index, EU15=100)	103	107	82	117
Share agriculture in total employment, 1999 (%)	4	4	3	7
Growth total employment, 1989-1999 (% p.a.)	2.3	1.0	0.0	0.2
Growth agricultural employment, 1989-1999 (% p.a.)	-3.2	-3.3	-5.0	-4.0
Growth non-agricultural employment, 1989-1999 (% p.a.)	2.6	1.2	0.1	0.6
Unemployment rate, 1999 (as % working population)	5	8	7	5

Source: Own calculations based on Eurostat, Luxembourg.

Out of the four case study regions, Wales has the largest share of less favoured areas (LFA): 77% (Table 3.3). LFA in Lower Saxony is also considerable with a share of over half of the utilized agricultural area. The share of LFA amounts to about one third in Emilia Romagna and in Northern Netherlands only 4% of the utilized agricultural area is classified as LFA. The number of hectares per farm holding vary from over 50 in Wales to 10 in Emilia Romagna. The economic size of farms (measured in ESU) in the Northern Netherlands is about 5-6 times as high as that in Emilia Romagna. The number of ESU per hectare can be used as a yardstick for the intensity of farming. This is also the highest in Northern Netherlands, whereas it is relatively low in Wales. This low intensity is related to the large share of LFA in this region, which hampers intensive production. In Lower Saxony and Wales the share of farmers with other gainful activities amounts to 30-35%, whereas in Northern Netherlands and Emilia Romagna this share is less than one fifth.

Table 3.3 *Some agricultural indicators in the case study regions*

	Northern Netherlands	Lower Saxony	Wales	Emilia Romagna
Share LFA in utilised agricultural area, 1997 (%)	4 a)	57	77	32
Utilised agricultural area per agricultural holding, 1997 (hectares)	32	36	51	10
Standard gross margins per agricultural holding, 1997 (European Size Units)	84	44	25	15
Standard gross margins per hectare utilised agricultural area, 1997 (European Size Units)	2.6	1.2	0.5	1.5
Share of farm holders with other gainful activity, 1997 (%)	19	35	28	17
Share of part time farm holders, 1997 (%)	31	52	43	72
GVA per agricultural worker, 1998 (€)	42,808	35,258	n.a. b)	29,102

a) 1989/90; b) GVA is lacking in Wales.

Source: Own calculations based on Eurostat, Luxembourg.

Emilia Romagna has about 120,000 farm holdings, which is 7 times as much as Northern Netherlands and 4 times as much as Wales (Table 3.4). The number of farm holdings in Lower Saxony amounts to about 75,000. From the shares of farming types it can easily be seen that most farmers in Wales are involved in animal production and most farmers in Emilia Romagna in crop production. Farmers in Lower Saxony are more evenly distributed between animal and crop production, whereas in Northern Netherlands about two thirds of farmers are involved in animal production.

Table 3.4 Farming types in the case study regions, 1997 (as % of total holdings)

	Northern Netherlands	Lower Saxony	Wales	Emilia Romagna
Specialist field crops	20	24	3	41
<i>of which:</i>				
- specialist cereals, oilseed and protein crops	1	8	1	14
- general field cropping	19	16	2	27
Specialist horticulture	3	2	1	1
Specialist permanent crops	1	3	0	24
<i>of which:</i>				
- specialist vineyards	0	0	0	8
- specialist fruit and citrus fruit	0	1	0	11
Specialist grazing livestock	67	42	91	15
<i>of which:</i>				
- specialist dairying	39	22	15	6
- specialist cattle-rearing and fattening	3	4	13	1
- cattle-dairying, rearing and fattening combined	1	2	1	0
- sheep, goats and other grazing livestock	23	14	61	7
Specialist granivores	3	4	1	1
Mixed cropping	1	3	0	11
Mixed livestock holdings	1	8	1	1
Mixed crops-livestock	4	16	2	5
Total number of agricultural holdings, 1997 (units)	17,520	74,760	27,940	119,780

Source: Own calculations based on Eurostat, Luxembourg.

### 3.4 Protocol for conducting case studies

A protocol for conducting case studies can be seen as a guideline for the researcher in carrying out a case study. In our case studies in intermediate rural and most urban regions, we have designed the following protocol involving three steps:

1. description of the case study region by using indicators of sustainable rural development;
2. analysis of measures in the Rural Development Plan (RDP) and related structural, rural and environmental policies;
3. assessment to which extent the measures of the RDP address the specific regional circumstances as reflected in the indicators of sustainable rural development identified in step 1.

Below these steps of the protocol are explained in more detail.

*Step 1. Description of the case study region by using indicators of sustainable rural development*

In this step, the main social, economic, cultural and environmental characteristics of the region are described. We use the following indicators:

	Indicator	Assessment to be made
1	Function of the region	Is the region considered as a place to live, to work or to recreate? (By/for whom?)
2	Natural and cultural heritage	Description of natural and cultural landscapes. Are these landscapes conserved in national parks or protected by other measures? Description of biodiversity and habitats. Description of rural amenities.
3	Agriculture	Discussion of core indicators: number of farmers, share agriculture in regional employment, age, % part time and pluriactive farmers, farming types, farm size, share of LFA.
4	Tourism	What are the main tourist activities? Who are the main visitors: urban dwellers from neighbouring regions or foreigners?
5	Other economic activities	Share industries and services in employment. Indication of specific regional economic activities.
6	Environmental concerns	Indication of main environmental problems.
7	Water concerns	Indication of main water problems.

With regard to the analysis of areas eligible by some kind of protection under indicator 2, we intend to identify areas with high nature values which are protected by legislation such as the EU Birds and Habitat Directive, which have a status of national or regional park, or which are protected for other reasons, e.g. environmental protection. As the degree of protection of these areas may differ within and between regions, comparisons of the share of these protected areas in the region's surface are complicated.

*Step 2. Analysis of measures in the Rural Development Plan (RDP) and related structural, rural and environmental policies*

The Rural Development Regulation (RDR 1257/99) distinguishes 9 chapters of rural development measures:

1. investments in agricultural holdings (art. 4-7);
2. setting up of young farmers (art. 8 );
3. training (art. 9);
4. early retirement (art. 10-12);
5. less- favoured areas and areas with environmental restrictions (art. 13-21);
6. agri-environment (art. 22-24);
7. improving, processing and marketing of agricultural products (art. 25-28);



8. forestry (art. 29-32);
9. promoting the adaptation and development of rural areas (art. 33).

In each case study region, we examine which measures are planned in the RDP under each chapter. Following Regulation (EC) No. 1750/99, these measures are listed a-v. In each case study a short description of each of the selected measures is given and it is also indicated how financial means are distributed among the measures. For our analysis, we used the original Rural Development Plans which were approved by the Commission in 2000/2001. Adjustments to these original RDPs, which have been made in several cases, have not been taken into account. In addition to the RDR measures, we pay also attention to other relevant rural development measures that are implemented in the scope of other EU Structural Policies, LEADER+ and national rural policies.

*Step 3. Assessment to which extent the measures of the RDP address the specific regional circumstances as reflected in the indicators of sustainable rural development identified in step 1.*

The menu approach of the RDR enables to design a tailor made package of measures in order to meet the specific needs of each region. In this step we assess whether the planned measures are according to the specific regional circumstances identified in step 1.

## 4. Case study Northern Netherlands

### 4.1 Description of the case study region

The region Northern Netherlands consists of the provinces Groningen, Fryslân and Drenthe. The region can be divided in the following parts (Nij Bijvank et al., 1998):

1. the Skin (De Schil), consisting of the north and north-west part with sea clay soil and the Veenkoloniën;
2. the Centre (De Kern) consisting of the Drenthian-Frisian Plateau and the Frisian Lakes;
3. the West Frisian Islands and Wadden Sea.

In this section we give a brief description of the main social, economic, cultural and environmental characteristics of Northern Netherlands by using the following seven indicators of sustainable rural development:

#### *Function of the region*

In 1998, the three provinces had 1.65 million inhabitants. The population density is low for Dutch standards (197 inhabitants per km<sup>2</sup>) (see Table 3.1). Unemployment rates in Northern Netherlands are a little above the Dutch average. Two thirds of the economic activities are close to the cities. The city of Groningen and surroundings is the main economic centre. Other economic centres are Leeuwarden, Emmen, Drachten, Heerenveen, Delfzijl and Assen. Many people who live in the rural areas work in those cities. A problem of the Northern Netherlands is the out-migration of well-educated younger persons. On the other hand, there is an immigration of older people and retirees to Drenthe. The northern part of Drenthe is one of the most attractive areas to live. Former farm buildings are also very attractive to live in. The provinces Drenthe and Fryslân, especially the lakes and Waddensea, offer good prospects for tourism. Especially Drenthe has many cycle tracks and hiking paths. Other people prefer the open landscapes in the Skin. On the whole, Northern Netherlands is a place to live, to work and to recreate.

#### *Natural and cultural heritage*

The landscape in the Frisian and Groningen sea clay region is very open with much space and quietness in the small villages, of which a part is lying on artificial mounds. The historic-cultural heritage is well kept in this area of Northern Netherlands, with Lauwersmeer as an area of outstanding beauty. The peat district Veenkoloniën is a large area that has been dug in the nineteenth century. Afterwards agriculture in this area is well developed. The district is characterised by open landscapes with little variation and is hardly attractive for tourism. Within the Centre, the Frisian lakes are connected by a system of smaller

lakes, swamps and nature. A large part of the Drenthian Plateau consists of forests, nature areas, such as wet and dry lands including heather, and agricultural land with characteristic landscape elements. The Aa and the Hunze are two brook valley systems connected with agriculture and nature and are characterized by scenic landscape and cultural historical values. In these areas the small-scale farms play an important role.

About 40% of the land surface of the Northern Netherlands is characterised as protected area, eligible to varying restrictions (Fig. 4.1). There are some national parks in Northern Netherlands, created for the protection and development of nature. A part of the Wadden is designated as an international park due to its importance for many kinds of birds, as living area for seals, and as incubator area for fish. Many small areas in the Northern Netherlands are designated under the Wild Birds Directive, of which many are also characterised as wetlands. On the basis of the Habitat Directive, which protects wild flora and fauna and their natural habitats, a number of small areas in the provinces Drenthe and Fryslân are designated. A large number of (small) areas are also protected under the international Ramsar Convention, for instance the wetlands. Regional government (i.e. the provinces) also classified a large number of small areas as environmentally protected area. There is national support for landscapes of outstanding cultural and scenic beauty in the context of the so-called Valuable Cultural Landscapes (WCL). In the WCL areas many functions are interrelated, which can give rise to tensions between agriculture, nature and landscape. The Dutch government aims at the maintenance and strengthening of the specific qualities of these areas. In the Northern Netherlands, there are two relatively large WCL areas designated (Fig. 4.1).

In addition, over a third of the surface consists of areas with many cultural-historical values in the scope of the so-called Belvedere policy. The Belvedere areas are especially located in the coastal zones in the Northern Netherlands (Fig. 4.1). There is no restrictive policy within these areas, but cultural-historical potentials should be utilised within rural development.

### *Agriculture*

Over one third of Dutch arable farming and 30% of dairy farming is situated in the three northern provinces. Horticulture (glass and intensive cultivation) and intensive livestock farming are relative small sectors, although both are slightly growing (Vlieger and Sluis, 2000).

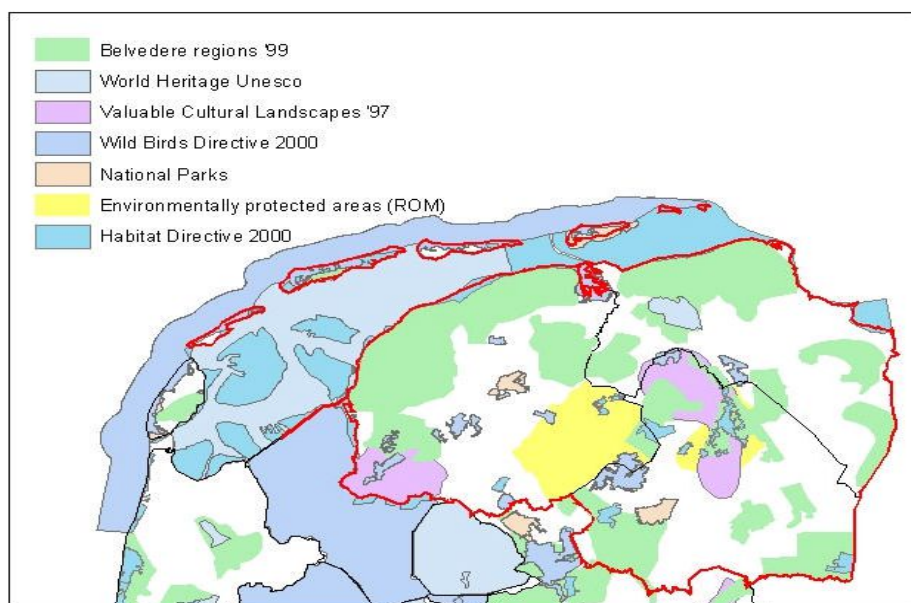


Figure 4.1 Restricted areas in the Northern Netherlands

Source: LEI.

Table 4.1 Some characteristics of the agricultural sector in the Northern Netherlands

Share agriculture in total employment, 1999 (%)	4.1
Growth agricultural employment, 1989-1999 (% p.a.)	-3.2
Share LFA in utilised agricultural area, 1997 (%)	4
Share of farm holders with other gainful activity, 1997 (%)	18.8
Share of part time farm holders, 1997 (%)	31.4
Utilised agricultural area per agricultural holding, 1997 (hectares)	32.5
Standard gross margins per agricultural holding, 1997 (European Size Units)	84.2
Standard gross margins per hectare utilised agricultural area, 1997 (European Size Units)	2.6
Total number of farm holdings	17,520
<i>of which:</i>	
- organic farms (in % of total)	1.5
Decrease in number of farms, 1988-1999 (% p.a.)	2.2
Specification of EU farming types (% of total):	
Specialist field crops	20
General field cropping	19
Specialist horticulture	3
Specialist grazing livestock	67
<i>of which:</i>	
- specialist dairying	39
- sheep, goats and other grazing livestock	23
Specialist granivores	3
Mixed crops-livestock	4

Source: Own calculations based on Eurostat, Luxembourg.

Two thirds of all farms in the Northern Netherlands are specialised in grazing livestock, of which many dairy farms (Table 4.1). The second largest type of farming is specialized field cropping (20%). Yearly, about 2.2% of the farms is terminating their business. In 1999, the share of agriculture in total employment was 4.1%. The average size of farms (84 ESU) is a little below that in other parts of the Netherlands, although the variation within the various parts of the Northern Netherlands is rather high.

The province Fryslân is a growing region for dairy farming in the Netherlands. In the sea clay area in the Skin, there is much arable farming, especially seed potato. In the Veenkoloniën potato starch plays a central role, although there is pressure on the incomes of those farmers. In recent years, there is a tendency that dairy farmers from other Dutch provinces move into the Veenkoloniën to set up new farms.

In Drenthe and the Frisian Lakes area, there is an increasing interest in multifunctional agriculture as the uptake of nature conservation, agro-tourism, organic farming and the production of regional products by farmers is rising. In Drenthe, for example, the area for bird management on grasslands increased from 10,000 ha in 1996 to 27,000 ha in 2000 (Province of Drenthe, 2002).

The three provinces are stimulating agriculture by three categories of measures (SNN, 1998):

1. broadening the activities on farms, especially combinations of agriculture with recreation and/or nature conservation;
2. the modernisation of farms by stimulating innovations;
3. improving competitiveness of agriculture. The expectation is that the contribution of sugar beets, potato starch and cereals will be reduced and that a shift will be made towards seed potato and more horticulture.

### *Tourism*

Tourism plays a substantial role in the Northern Netherlands. Attractive elements for tourists are the open landscape, the quiet areas, the fresh air, the cycling and hiking roads, water (lakes and Waddensea), many forests and nature. In Fryslân, water in a broad context plays a central role in tourism. The Wadden Islands are attractive for (young) families and young persons. In Drenthe, walking and cycling are the most attractive activities. In all three provinces, there is a growing possibility to recreate, in combination with nature and agriculture. Tourists are coming from the Northern Netherlands, but also from the other Dutch provinces and from abroad, especially Germany. In 2001, about 21 million nights were spent within the three provinces, of which more than 50% in the province Fryslân (NNBT, 2002).

### *Other economic activities*

In 1995, most of the labour force in the Northern Netherlands is working in the services sector and the public sector (Table 4.2). The expectation till 2015 is that these percentages will rise further, and that employment in agriculture, construction and manufacturing will decrease. A small share of the Dutch firms in agribusiness (10-15%) is located in the

Northern Netherlands (De Vlieger and Sluis, 2000). One of the reasons for this low share is the small size of intensive livestock farming and horticulture in the Northern Netherlands.

The four big cities in the Netherlands (Amsterdam, Rotterdam, The Hague and Utrecht) are at a distance of about 200 till 250 kilometres. The city of Groningen plays an important regional economic role for people of the Northern Netherlands.

Table 4.2 *Share of industries and services in employment, 1995 (2015 between brackets) (%)*

	Groningen	Fryslân	Drenthe	NN	Netherlands
Public sector	30.7 (36.7)	27.3 (33.0)	26.6 (34.1)	28.5 (34.7)	27.9 (33.7)
Services sector	36.3 (37.1)	36.7 (39.9)	33.4 (35.7)	35.8 (37.9)	42.4 (43.3)
Construction	6.5 (5.2)	8.1 (6.4)	8.6 (6.5)	7.6 (5.9)	6.8 (5.5)
Manufacturing	18.1 (13.6)	18.1 (13.5)	20.1 (15.3)	18.5 (13.9)	17.1(13.4)
Agriculture	6.3 (4.2)	8.9 (6.4)	9.4 (6.3)	8.9 (5.5)	4.8 (3.2)

Source: SNN (1998).

### *Environmental concerns*

The pressure on the environment is relatively low in the region. The use of agricultural land is more extensive than in the other parts of the Netherlands. In addition, the share of intensive livestock farming and horticulture in agricultural production is low. The nitrogen policy, supplementary to the EU Nitrate Directive, is important for the future prospects of dairy farms. In this context, farmers have to make annual mineral accounts. There is no large concentration of heavy industry in the Northern Netherlands. The fresh water reservoirs in the Centre (Plateau) are sensitive to environmental pollution, in contrast to the Skill. In the peat district and its surroundings, there are some erosion problems.

### *Water concerns*

The fresh water reservoirs, especially in the Drenthian and Frisian Plateau, are essential for the Northern Netherlands. Water control policy is based to retain more water from the region to the benefit of agriculture, nature and drinking water supply. There is sufficient stock of drinking water, especially in the lower areas. New surface water and a higher groundwater level are used as a buffer against the process of land becoming saltier. In the surroundings of several dry land areas desiccation is a concern.

### *Rural developments priorities*

Specific rural developments priorities of the region are (MLNV, 2000a):

1. to restructure agriculture into a modern, innovative, knowledge-intensive and sustainable sector, in particular in the so-called 'Noordelijke Schil';

2. to stimulate multifunctional agriculture, in which farmers provide apart from food and feed, also other services such as nature, landscape, tourist facilities etc., in particular in the so-called 'Drents Plateau';
3. to promote sustainable water management by means of optimising water levels for agriculture and nature, improving infrastructures for water supply and drainage and offering opportunities to retain water.
4. to improve the quality of nature and landscape, especially by establishing a network of large-scale protected areas;
5. to enhance the quality of life, especially with regard to the provision of and access to basic services and public transport.

## 4.2 Rural development policy and related measures

### 4.2.1 Rural Development Plan

The Rural Development Plan (RDP), submitted in the scope of 1257/99, covers the whole area of the Netherlands (MLNV, 2000b). Although the RDP recognizes the existence of specific regional problems, it makes no distinction among planned measures for specific parts of the Netherlands, except for a number of measures for the so-called 'reconstruction areas'. So we assume that all RDP measures can be implemented in the Northern Netherlands, unless it is indicated that the measures only apply for the reconstruction areas. In Fig. 4.2 we have classified the planned RDP measures according to the 22 measures (a-v) in Reg. 1750/99.

RDR Measure	No.	Planned measures in RDR
1 art. 4-7		<b>(a) Investment in agricultural holdings</b>
	a1	<i>(Structuurverbetering glastuinbouw)</i> Subsidies for investments in improvement of the farm structure in the sector of horticulture under glass.
	a2	<i>(P<sup>1</sup>: Investerings in landbouwbedrijven)</i> Investment support for farms directed at experiments (with regard to decrease in production costs, improvement and diversification of production, improvement and maintenance of the quality of the natural environment, and improvement of animal welfare) and for stimulating new products and techniques.
3 art. 9		<b>(c) Training</b>
	c1	<i>(P: Opleiding)</i> Support for training directed at diversification on farm, nature and landscape conservation, environmental protection, integrated forestry and marketing and processing of agricultural products.
5 art.13-21		<b>(e) Less favoured areas and areas with environmental restrictions</b>

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<sup>1</sup> P denotes a provincial programme.

	e1	<i>(Regeling agrarisch natuurbeheer)</i> Compensatory allowances for less-favoured areas, which in the Netherlands is interpreted as compensations for the maintenance of natural handicaps.
6 art.22-24		<b>(f) Agri-environment</b>
	f1	<i>(Regeling stimulering biologische productiemethode)</i> Compensatory allowances for the income loss during the transition period towards organic farming (only crops).
	f2	<i>(Regeling agrarisch natuurbeheer)</i> Subsidies for the conservation and development of nature and landscape values in agricultural areas. About 40 different measures of conservation are applicable.
7 art.25-28		<b>(g) Improving processing and marketing of agricultural products</b>
	g1	<i>(P: Verbetering van de verwerking en afzet van landbouwproducten)</i> Support for the construction/buying of immobile assets, new machines, farm equipment, costs of architects and other advisors and research on the feasibility of patents and licenses.
8 art.29-32		<b>(h) Afforestation of agricultural land</b>
	h1	<i>(Regeling agrarisch natuurbeheer)</i> Subsidies for temporary afforestation of agricultural land.
	h2	<i>(Regeling agrarisch natuurbeheer)</i> Subsidies for permanent afforestation of agricultural land.
		<b>(i) Other forestry measures</b>
	i1	<i>(Subsidieregeling natuurbeheer)</i> Support for the maintenance or improvement of the ecological stability of forests and nature areas.
	i2	<i>(Landinrichting; bosaanleg)</i> Subsidies for afforestation of non-agricultural land. The measure is restricted to Reconstruction areas with husbandry.
	i3	<i>(P: Overige bosbouwmaatregelen)</i> Subsidies for afforestation of non-agricultural land.
9 art.33		<b>(k) Reparcelling</b>
	k1	<i>(Verwerving staat)</i> To buy agricultural area with high nature value by the state, to be managed by nature conservation organisations. This measure will be especially applied in south and eastern part of the country.
	k2	<i>(Bedrijfshervestiging en beëindiging)</i> Replacement and termination of farms, aimed at requiring agricultural area for conversion into nature or recreation area. The measure is restricted to the so-called 'toeslaggebieden'.
	k3	<i>(Regeling particuliere terreinbeherende organisaties)</i> To buy agricultural area with high nature value by nature conservation organisations, with the restriction that this area must be located within the so-called EHS.
	k4	<i>(Landinrichting; kavelaanvaarding)</i> Improvements in infrastructural facilities after land consolidation, both for farmers and nature organisations. The measure is restricted to Reconstruction areas with husbandry.
	k5	<i>(P: Herverkaveling)</i> Support for preparation and realization of land consolidation plans.
		<b>(m) Marketing of quality agricultural products</b>
	m1	<i>(P: Afzet van kwaliteitslandbouwproducten)</i>



		Support for cooperation's of firms and farmers for the marketing of quality products. Quality products comprise organic products, products produced in an integrated chain, regional and traditional products, products produced with improved production methods, innovative products and products with significant positive effects on the environment, animal welfare or hygiene.
		<b>(n) Basic services for the rural economy and population</b>
	n1	<i>(P: Dienstverlenende instanties basiszorg)</i> Support for collective basic and tailor-made services, such as an information shop, meeting places, infant welfare centres, child health care and public traffic; support can also be given for activities focussed on development and conservation of cultural values and regional identity.
		<b>(o) Renovation and development of villages and protection and conservation of the rural heritage</b>
	o1	<i>(P: Dorpsvernieuwing en -ontwikkeling)</i> Support for renovation and development of villages and protection and conservation of rural heritage.
		<b>(p) Diversification of agricultural activities and activities close to agriculture to provide multiple activities or alternative incomes</b>
	p1	The national measure is not included in the original RDP; however, it is intended to submit the measure later as an adjustment to the original RDP.
	p2	<i>(P: Diversificatie van de bedrijvigheid in de landbouw en in verwante activiteiten, gericht op het combineren van verscheidene activiteiten of het aanboren van alternatieve inkomstenbronnen)</i> Support for farm diversification, such as traditional products, nature recreation, tourism, care and non-agricultural activities on farms, as well as support for the introduction of ICT activities in rural areas.
		<b>(q) Agricultural water resources management</b>
	q1	<i>(Regeling gebiedsgerichte bestrijding van verdroging)</i> Investments in water management in areas with agriculture and nature, which are threatened by desiccation.
	q2	<i>(Landinrichting; waterbeheersing)</i> Water management in projects aimed at reconstruction of agricultural and nature areas. The measure is mainly restricted to Reconstruction areas with husbandry.
	q3	<i>(Subsidieregeleling gebiedsgericht beleid, onderdeel waterbeheer)</i> Water management in selected areas, aimed at the improvement of hydrological systems directed at conservation, recovering or development of natural and cultural landscapes, agriculture, and if possible, combined with restricting water annoyance and protection of drink water resources.
	q4	<i>(P: Waterbeheer in de landbouw)</i> Support for integrated water management by Water Boards; a wide range of general measures is included to improve the water systems
		<b>(r) Development and improvement of infrastructure connected with the development of agriculture</b>
	r1	<i>(Landinrichting; ontsluiting)</i> Construction of secondary roads with a local function. The measure is mainly restricted to Reconstruction areas with husbandry.
	r2	<i>(P: Ontwikkeling en verbetering landbouwinfrastructuur)</i> Construction of secondary roads with a local function and bicycle tracks along local roads aimed at the improvement of road safety.
		<b>(s) Encouragement for tourist and craft activities</b>
	s1	<i>(Landinrichting; inrichting recreatiegebieden)</i> Provision of recreation facilities like hiking, bicycle and horse roads, parking places and banks. The measure is mainly restricted to Reconstruction areas with husbandry.

	s2	<i>(P: Bevordering van toeristische en anbachtelijke activiteiten)</i> Support for measures aimed at the enhancement of rural tourism: design of plans for rural tourism, construction or improvement of recreation facilities like hiking, bicycle and horse roads and visitors' centres.
		<b>(t) Protection of the environment in connection with agriculture, forestry and landscape conservation as well as the improvement of animal welfare</b>
	t1	<i>(Subsidieregeling Natuurbeheer)</i> Improvement of the structure of nature areas, owned by municipalities or private persons.
	t2	<i>(Landinrichting; inrichting reservaten en natuurontwikkelings-gebieden)</i> Improvement of the structure of nature areas. The measure is mainly restricted to Reconstruction areas with husbandry.
	t3	<i>(Landinrichting; milieumaatregelen)</i> Terminating sewerage spill-overs and purging of small-scale polluted soils. The measure is mainly restricted to Reconstruction areas with husbandry.
	t4	<i>(Subsidieregeling gebiedsgericht beleid; onderdeel milieubeleid)</i> The national measure on support for territorial environmental policy is not included in the original RDP; however, it is intended to submit the measure later as an adjustment to the original RDP.
	t5	<i>(P: Milieubehoud in samenhang met land- en bosbouw en landschapsbeheer, en met verbetering van het welzijn van dieren)</i> Support for provinces, Water Boards, nature and environmental organizations and organizations of farmers, directed at the design of local or regional nature and landscape programmes, reconstruction of natural heritage, construction of public green projects in land consolidation projects, the purchase of land for nature area, the improvement of the structure of nature areas, starting-up costs for mobilizing partnerships for agricultural nature conservation and starting-up costs for environmental projects at individual farms.

Figure 4.2 Overview of measures in the RDP of the Netherlands

In order to get some insight in priorities in the long list of proposed measures in the RDP, it is useful to examine the distribution of expenditure among the various measures. From Table 4.3 it can easily be seen that almost two-thirds of expenditure will be used for measures under article 33, especially for re-parcelling (k) and the protection of the environment in connection with agriculture (t). From this, it can be concluded that the emphasis in the Dutch RDP is on nature conservation and development. Investments in agricultural holdings, agri-environmental and forestry measures are also among the categories for which considerable financial means are reserved, but to a lesser extent than the article 33 measures.

#### 4.2.2 Other measures

In this section we discuss some other main policy measures in the Northern Netherlands.

Table 4.3 Total public expenditure, 2000-2006 ( mln euro)

art. 1257/99	Measures	Total	in % of total
4-7	a Investment in agricultural holdings	64.3	6.1
9	c Training	4.3	0.4
13-21	e Less favoured areas and areas with environmental restrictions	9.8	0.9
22-24	f Agri-environment	89.6	8.5
25-28	g Improving processing and marketing of agricultural products	5.6	0.5
29-32	h Afforestation of agricultural land	10.5	1.0
29-32	i Other forestry measures	54.5	5.2
	Article 29-32, total	65.0	6.1
33	k Reparcelling	213.9	20.2
33	m Marketing of quality agricultural products	7.7	0.7
33	n Basic services for the rural economy and population	11.0	1.0
33	o Renovation and development of villages and protection and conservation of the rural heritage	29.9	2.8
33	p Diversification of agricultural activities and activities close to agriculture to provide multiple activities or alternative incomes	32.4	3.1
33	q Agricultural water resources management	107.9	10.2
33	r Development and improvement of infrastructure connected with the development of agriculture	27.8	2.6
33	s Encouragement for tourist and craft activities	33.9	3.2
33	t Protection of the environment in connection with agriculture, forestry and landscape conservation as well as the improvement of animal welfare	213.6	20.2
	Article 33, total	678.2	64.1
	Other:		
	- Evaluations	10.7	1.0
	- Former accompanying measures	123.6	11.7
	- Transitory measures	6.3	0.6
	TOTAL a)	1057.4	100

a) EU contribution is nearly 40%.

Source: Own calculations based on RDP of the Netherlands, 2000:102-3.

### *National rural policies*

Apart from the RDP in the Netherlands, a large number of national rural development measures can be applied (Annex 3 of the RDP). We give these measures in Fig. 4.3, classified according to the headings of farm modernization, training, aid for processing and marketing, nature conservation and afforestation on agricultural land, nature conservation, cultural landscape, quality of life and region specific support.

Heading	Measures
Farm modernization	Investments in farms
Training	Demonstration projects for good agricultural practice with regard to sustainable agriculture
Aid for processing and marketing	Support for processing and marketing of forestry products Support for innovation in agricultural products, processing and marketing
Nature conservation and afforestation on agricultural land	Support for nature conservation on agricultural land Support for afforestation of agricultural land
Nature conservation	Support for measures to prevent acidification, eutrophication and desiccation of nature areas and forests Support for nature conservation in nature areas Support for the prevention of afforestation of reed areas Support for the maintenance of sheep flocks Support for national parks and parks bordering Belgium or Germany Support for protection of rare animals and plants
Cultural landscapes	Support for landscapes of outstanding cultural and scenic beauty (so-called WCL) Support for the conservation and maintenance of historical estates Support for development of high-quality landscapes Support for conservation of landscape elements
Quality of life	Support for renewal of rural areas Support for the enhancement of recreation
Region specific support	Support for reconstruction of East Groningen and the Veenkoloniën Support for reconstruction of old greenhouse areas

Figure 4.3 National rural development measures in the Northern Netherlands  
Source: Annex 3 of the RDP of the Netherlands.

### *Compass for the North*

The three provinces of the Northern Netherlands joined forces in defining a regional policy. In the Compass for the North (SNN, 1998) an integral development strategy has been developed for the period 2000-2010. In this strategy, economic growth is linked to the maintenance and strengthening of landscape and natural and environmental resources. Its key points are:

- strengthening the market sector and concentration of economic activities in economic key areas;
- developing dynamic town centres;
- establishment of attractive rural areas as a condition for balanced development.

Till 2007, a total budget of € 534 million from the Ministry of Economic Affairs is available for Compass of the North.

### *LEADER+*

The LEADER+ programme for Northern Netherlands builds upon the Compass for the North. Its objective is to work on sustainable and balanced development in the rural areas

of the Northern Netherlands with the help of a territorial, integrated and participative approach, which is based on new forms of enhancement of the natural and cultural heritage, job creation and improving the organisational abilities of local communities (MLNV, 2000c). In this scope, its priorities are:

- to strengthen the competitive position of the (agricultural) business community and to develop new sustainable economic activities, especially tourism;
- to increase employment and to achieve a further fall in the unemployment component; in particular targeted at equal opportunities for women and men and young people;
- to increase the attractiveness of the rural area in terms of housing, working and social conditions;
- to promote the quality of life of the countryside.

The total funds available for LEADER+ during 2000-2006 amount to € 73.5 million, of which 34% is cofinanced by EU Structural Funds and another 34% by the regional governments of the Northern Netherlands.

### *Objective 2*

The Objective 2 programme, which is eligible for some parts of the Northern Netherlands, aims to stimulate the economy in some border areas in the Northern Netherlands in the period 2000-2006. The focus is on stimulating the industrial, services and tourist sectors. In the programme, there are 4 priority areas for action (Objective 2 Programme Northern Netherlands, 2002):

1. consolidation of the private sector;
2. development of urban centres;
3. improve the functioning of the labour market;
4. technical assistance.

The total budget is € 1,237.45 million, of which the EU Structural Funds contribute € 341.9 million.

### *Interreg IIIA*

The EU participates in the economic development of the Ems-Dollart Region (the most northern German-Dutch border region) by co-financing the INTERREG III programme for the eligible areas of this region during the 2000-2006 period. The main action priorities are (Ems-Dollart INTERREG III, 2002):

1. improving the physical infrastructure;
2. promotion of economic, scientific and technological collaboration to create structural jobs;
3. protection of the natural environment.

The total costs of the programme amount to € 86.753 million, of which the European Regional Development Fund (ERDF) contributes 40%.

## Nitrate Directive

The objective of the Nitrate Directive of the EC (adopted in 1991) is the protection of water against pollution by nitrate from agricultural sources. In the Netherlands, the Nitrate Directive is applied to the whole territory. The minerals accounting system is a crucial aspect of the measures. The Directive is integrated in the Dutch manure and ammonia policy and results in a considerable spread in costs between types of farming (EC Directorate General Environment, 2000). In the Northern Netherlands there are no areas with a highly intensive agricultural production system. On the whole, farms have sufficient land and costs are restricted to minerals accounting (€ 100 to € 600 per farm) and investments in storage.

### 4.3 Assessment

In order to assess whether the planned measures in the RDP meet the priorities of the region, we face the difficulty that the RDP applies for the whole area of the Netherlands, and that the rural development priorities defined in the RDP of the Netherlands differ to some extent from those identified for the Northern Netherlands in Section 4.1. In Fig. 4.4, the relation between the priorities in the RDP of the Netherlands and the specific development priorities for the Northern Netherlands is presented.

Rural development priorities in the RDP for the Netherlands	Relating to:	Rural development priorities in the Northern Netherlands
1. Developing sustainable agriculture		1. To restructure agriculture into a modern and innovative sector; 2. To stimulate multifunctional agriculture
2. Improving the quality of nature and landscape		4. To improve the quality of nature and landscape
3. Sustainable water management		3. To promote sustainable water management
4. Economic diversification		2. To stimulate multifunctional agriculture
5. Promoting tourism and recreation		2. To stimulate multifunctional agriculture
6. Improving the quality of rural life		5. To enhance the quality of life

Figure 4.4 Relationship between the rural development priorities in the RDP for the Netherlands and the priorities for the Northern Netherlands

In Fig. 4.5 we have classified the planned RDP measures according to the rural development priorities of the Northern Netherlands. RDP measures directed at reconstruction areas have been disregarded. Below we will briefly discuss these measures and assess whether the proposed measures contribute to rural development priorities.

Rural development priorities of the Northern Netherlands	Planned measures in RDP
1 To restructure agriculture into a modern and innovative sector	a1, a2, c1, f1, g1, k5, m1
2. To stimulate multifunctional agriculture	c1, e1, f1, f2, h1, m1, p2, s2
3. To promote sustainable water management	q1, q3, q4
4. To improve the quality of nature and landscape	h2, i1, i3, k2, k3, t1, t5
5. To enhance the quality of life	n1, o1, r2

Figure 4.5 Planned RDP measures according to the rural developments priorities in Northern Netherlands

### Key priority 1

The priority of restructuring the agricultural sector is addressed by conventional measures like:

- investments in agricultural holdings towards new products, new techniques and experiments on decreasing production costs, improving the environment and animal welfare etc.;
- support for training for farmers;
- compensatory allowances for the income loss during the transition period towards organic crop farming;
- improving processing and marketing of agricultural products. Specific attention is paid to the marketing of quality products;
- support for preparation and realization of land consolidation plans.

On the whole, the planned measures may contribute to improve the prospects of a modern, innovative, knowledge-intensive and sustainable agricultural sector. Considering the large share of dairy in agriculture in the northern part of the Netherlands, the lack of compensatory allowances for the transition towards organic dairy farming can be indicated as a shortcoming. In addition, it is not clear whether these measures offer sufficient opportunities in the search for a 'fourth crop' in arable farming, along with cereals, potatoes and beet; and for the reconstruction of starch potatoes farming.

### Key priority 2

To stimulate multifunctional agriculture, the following measures are planned:

- support for training for farmers;
- compensatory allowances for less-favoured areas, which in the Netherlands is interpreted as compensations for the maintenance of natural handicaps;
- compensatory allowances for the income loss during the transition period towards organic crop farming;
- subsidies for the conservation and development of nature and landscape values in agricultural areas;
- subsidies for temporary afforestation of agricultural land;

- support for the marketing of quality products, which include organic, regional and traditional products;
- support for farm diversification, such as traditional products, nature recreation, tourism, care and non-agricultural activities on farms;
- support for measures aimed at the enhancement of rural tourism.

The proposed package of measures includes support for a wide range of services provided by multifunctional farmers, such as nature and landscape conservation, forests, organic, regional and traditional products, agro-tourism and other non-agricultural activities on farms. The marketing of these products is also taken into account.

### *Key priority 3*

Measures proposed to enhance the water management system are:

- investments in water management in areas with agriculture and nature, which are threatened by desiccation;
- water management in selected areas, aimed at the improvement of hydrological systems directed at conservation, recovering or development of natural and cultural landscapes and agriculture
- support for integrated water management by Water Boards; a wide range of general measures is included to improve the water systems

These measures are expected to contribute to the improvement of water management in the north of the Netherlands; however, they do not seem to address the issue of water retention.

### *Key priority 4*

To improve the quality of nature and landscape, the following measures are planned:

- Subsidies for permanent afforestation of agricultural and non-agricultural land;
- Support for the maintenance or improvement of the ecological stability of forests and nature areas;
- Purchase of agricultural area for conversion into nature or recreation area;
- Improvement of the structure of nature areas;
- Support for the design and implementation of local or regional nature and landscape programmes towards the protection of the natural heritage and the environment.

In general, these measures can result in a higher quality of nature and landscape and the enlargement of the protected areas, provided that the pace of purchase of agricultural areas for conversion into nature area is not too low.

### *Key priority 5*

To enhance the quality of life in rural areas, the RDP intends the following measures:



- support for collective basic and tailor-made services, including meeting places, infant welfare centres, child health care and public traffic;
- support for activities focussed on development and conservation of cultural values and regional identity;
- support for renovation and development of villages and protection and conservation of rural heritage;
- construction of secondary roads with a local function and bicycle tracks along local roads aimed at the improvement of road safety.

The package of proposed measures addresses the two main key issues with regard to this priority in the north of the Netherlands: the provision of and access to basic services and public transport.

#### **4.4 Concluding remarks**

From the viewpoint of rural development policy, Northern Netherlands is an interesting region as its rural development priorities are both directed at modernization of the agricultural sector in some parts of the region and at enhancing the multifunctional role of agriculture in other parts. Outside the domain of the agricultural sector, rural development priorities concern water management, nature and landscape conservation and the provision of basic services to rural dwellers.

When we compare the planned measures in the RDP-which is designed for the whole area of the Netherlands-with these priorities, it appears that they are all addressed by a number of measures. Some gaps have been denoted with regard to the lack of compensatory allowances for the transition towards organic dairy farming and the lack of measures concerning the water retention capacity. In addition, it is not clear whether the measures towards modernization of the agricultural sector offer sufficient opportunities in the search for a 'fourth crop' in arable farming and for the reconstruction of starch potatoes farming. Moreover, whether the measures really contribute to the development priorities depends on the uptake of these measures.

## 5. Case study Lower Saxony

### 5.1 Description of the case study region

In this section a brief description is given of the main social, economic, cultural and environmental characteristics of Lower Saxony by using the following seven indicators of sustainable rural development:

#### *Function of the region*

Lower Saxony is a large (47,614 km<sup>2</sup>) and heterogeneous federal state in Germany, with mountains, hills, plains and a coastal area. Lower Saxony has 7.86 million inhabitants. About 22% of the inhabitants are under the 20 years of age, the same percentage is above the age of 60. In the period 1988-1989 the annual population growth was nearly 1% (Table 5.1). The population density is with 165 inhabitants per km<sup>2</sup>. This is low for German standards (230 inh. per km<sup>2</sup>). There are large regional differences in population density: in the south and southeast the density is higher than average, in the northern and the central areas it is lower. Especially the coastal areas, the rural areas at the Dutch border and the rural areas bordering at the former German Democratic Republic (GDR) have a relatively low population density. In the industrialised urban part of the region people work and live. A substantial part of Lower Saxony is attractive for tourism and recreation, especially the coastal region and the areas with hills and mountains.

The gross domestic product per capita in Lower Saxony is below the German average, but 7% above the EU average. During the last decade the region experienced an employment growth of 1% p.a. (Table 5.1). The unemployment rate of 7% is still above the German average.

Table 5.1 Area, population and employment in Lower Saxony

Total area (km <sup>2</sup> )	47,614
Population, 1999 (1,000 persons)	7,890
Population density, 1999 (inh./km <sup>2</sup> )	165
Population growth, 1988-1998 (% p.a.)	0.9
GDP/inhabitant, 1998 (€)	21,640
GDP/inhabitant, 1998 (index EU15=100)	107
Growth of total employment, 1989-1999 (% p.a.)	1.0
Unemployment rate, 1999 (%)	7.0

Source: Own calculations based on Eurostat, Luxembourg.

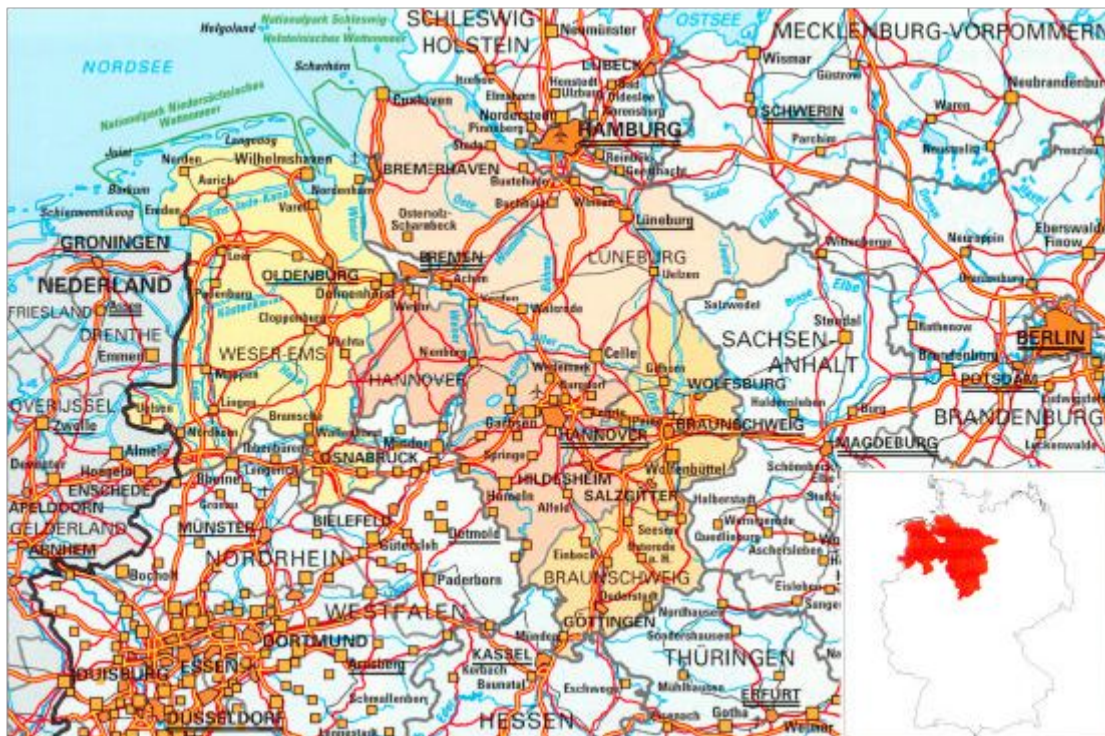


Figure 5.1 Map of the region

Source: CEC (1993a), Portrait of the regions; Volume 1: Germany, Benelux and Denmark; Luxembourg.

### *Natural and cultural heritage*

Bordered by the Netherlands, the North Sea and the river Elbe, Lower Saxony is with its 47,612 km<sup>2</sup> the second largest federal state in Germany. Lower Saxony is strongly marked by rural settlement structures. There is a great variety in landscape types. A large part of Lower Saxony is the great northern plain in Germany. Its more prominent geographical features include the East Frisian islands in the north and, to the south, the polders, a great plain formed in the last Ice Age, comprising sandy soil, infertile heath and peat bogs. A belt of arable, wind-blown soil is situated in the southern zone. Finally, Lower Saxony encompasses a part of Weserbergland, a group of small mountains and hydrographic basins drained by the Leine, from Göttingen to Hildesheim, at the foot of the Harz. Only a small part of the land consists of medium-sized mountains (Oberharz) (Rural Europe, 2000).

Nearly 60% of the region is covered by farmland and 20% by heath and forest. Since the 1950s, the surface consisting of forest is rising again. About 40% of the forest is property of the government. A characteristic of the forest is that more than 50% of the trees is younger than 40 years (Region Niedersachsen, 2002). In Lower Saxony about 43% of the land is covered by areas eligible under various kinds of protection. These areas are the National Park Wattenmeer (2,400 km<sup>2</sup>), Natural Parks (7,440 km<sup>2</sup>), Nature reserves (1,140 km<sup>2</sup>) and protected nature areas (9,640 km<sup>2</sup>) (Rural Europe, 2000).

## Agriculture

Lower Saxony is an important agricultural region in Germany, with about 75,000 farms and 2,700,000 hectare of utilised agricultural area. In the period 1988-1999 yearly about 3.3% of the farms terminated their business. This is well above the average national rate (3.1%) and the rate in the neighbouring federal states Schleswig Holstein (2%) and North Rhine-Westphalia (2.6%). About a quarter of the farms specialised in arable farming, most of it general field cropping (Table 5.2). These farms are concentrated in the southern and eastern areas on relatively large farms. Over 40% of the farms is specialised in grazing livestock, of which half is dairy farming. This type of farming is concentrated in the northern and western areas of the region. A small proportion of the farms is engaged in intensive livestock farming. Over 25% of the farms has a mixed production system. These farms are concentrated in the northwestern areas Cloppenburg, Oldenburg, Rotenburg and Stade.

The main agricultural products in Lower Saxony are milk, pig meat, beef, grains, sugar beet and potatoes. The income of farmers is on average higher than the national level, but lower than in Schleswig Holstein. The cost prices of pigs and cows are higher than in strong dairy-farming countries as the Netherlands and Denmark (Bondt et al., 2002).

Table 5.2 Some characteristics of the agricultural sector in Lower Saxony

Share agriculture in total employment, 1999 (%)	4
Growth agricultural employment, 1989-1999 (% p.a.)	-3.3
Share LFA in utilised agricultural area, 1997 (%)	57
Share of farm holders with other gainful activity, 1997 (%)	35
Share of part time farm holders, 1997 (%)	52
Utilised agricultural area per agricultural holding, 1997 (hectares)	36
Standard gross margins per agricultural holding, 1997 (European Size Units)	44
Standard gross margins per hectare utilised agricultural area, 1997 (European Size Units)	1.2
Gross value added per agricultural worker, 1998 (in €)	35.300
Total number of farm holdings	74,760
Specification of EU farming types (% of total):	
Specialist field crops	24
<i>of which:</i>	
- specialist cereals, oilseed and protein crops	8
- general field cropping	16
Specialist horticulture	2
Specialist permanent crops	3
Specialist grazing livestock	42
<i>of which:</i>	
- specialist dairying	22
- specialist cattle-rearing and fattening (incl. combined)	6
- sheep, goats and other grazing livestock	14
Specialist granivores	4
Mixed cropping	3
Mixed livestock holdings	8
Mixed crops-livestock	16

Source: Own calculations based on Eurostat, Luxembourg.

A rather high percentage (57%) of the agricultural area is designated as less favoured areas. More than one-third of the surface of agricultural land consists of arable land and 18% of grassland (NMELF, 2001). The average area per farm is 36 hectares with a relatively small amount of standard gross margins (Table 5.2). More than half of the farmers is part-timer and one-third has other gainful activities.

The share of organic farms (0.8%) and area cultivated organically (0.9%) is rather low and beneath the German average (1.6% and 2.6%). This is due to higher transport costs, less local demand and a good agricultural structure (large specialised farms) relative to other German federal states. In general the perspectives for organic farming are the best for mixed farms. A large part of the organic farmers in Lower Saxony is a member of the AGOL (Arbeitsgemeinschaft Ökologischer Landbau).

### *Tourism*

Areas suitable for tourist purposes in Lower Saxony are for a substantial part related to water activities. The tourist business becomes stronger as one approaches the Frisian coast. Also in the middle-highlands (Harz) tourism plays an important role within the economy, with main activities as walking, cycling and water activities. Many tourists go also to regions with infertile heath, because of the beautiful landscape and many threatened plants and animals. There is increasing significance of rural areas as locations to live and recreate. The number of nights spent is rising in the rural areas. The high seasonal unemployment in these areas is slightly decreasing due to the rise of tourism. Tourism is the only activity where the employment growth is above national average (Rural Europe, 2000).

### *Other economic activities*

Lower Saxony is being pulled in several directions: westward by the centrifugal influences of the major industries of North-Rhine-Westphalia, eastward by Berlin, and northward by the powerful Hanseatic City States of Hamburg and Bremen which play a key role in the region's economy. Many of Lower Saxony's residents work in these two big cities (CEC, 1993a).

Since the reunification of Eastern and Western Germany, the region has moved from the edge to the centre of Germany and Europe. The flow of trade between the former East and West has rapidly expanded, and the European Union's enlargement eastward is opening up major prospects in the medium and long term.

The city of Hanover plays also an important economic role in the region. The main economic activities of Lower Saxony's metropolis include the inorganic chemical sector, the tyre industry, automobile manufacturing, machine building and the electrochemical business. Many smaller cities are situated along the main transporting routes, for instance between the Ruhr region and the city of Berlin. In the north, Wilhelmshafen has become an oil port and Emden is involved in assembling and shipping automobiles. Oldenburg is another active centre and a major outlet for farm products. In the southeast, Göttingen is a renowned academic and scientific centre.

The distribution of the working population in Lower Saxony is as follows: 4% is working in the primary sector, nearly one third (32%) in the secondary sector, and nearly

two thirds (64%) in the tertiary sector (Rural Europe, 2000). The economic structure of Lower Saxony is rather unbalanced and is being dominated by the car industry, which, together with rubber, accounts for one-quarter of secondary jobs. The government has substantially invested in the region's industrial activity (steel works, Volkswagen).

The substantial weight of the public sector in Lower Saxony was also partly due to the very heavy military presence, a situation justified by the Land's long border with the former Iron Curtain. Since its dismantling in 1990, the reduction in military personnel has had severe economic consequences on towns where the armed forces are stationed.

### *Environmental concerns*

Main environmental problems in Lower Saxony are:

- the loss of semi-natural as well as extensively used cultural landscape biotopes;
- high percentage of intensively used agricultural land, especially in the west of Lower Saxony;
- high percentage of erosion and nitrate leaching endangered locations. Nitrate concentrations occurred especially in relation with the intensive dairy farming in the southwest of the region. Erosion is particular a concern in the arable farming areas in the middle and in the east;
- concentration of ammonia and emission problems in the areas in the southwest;
- poor condition of a large part of the forests;

In Lower Saxony the national and regional legal provisions form minimum standards for environment, health, hygiene and animal welfare.

### *Water concerns*

The Fertiliser Decree was introduced in Germany in 1996. It meets the requirements of the EU Nitrate Directive. Its main conditions are:

- Germany as a whole is defined as a vulnerable zone;
- introduction of a code of good agricultural practice, in Lower Saxony in particular for fertilisation, plant and soil protection;
- high restrictions on animal fertiliser use.

In Lower Saxony the highest concentration of nitrates in the soil water is found in the southern areas, especially Vechla.

### *Development priorities*

The main points of action in the rural development plan of Lower Saxony are (RDP Lower Saxony, 2000):

1. improvement of agricultural and forestry production structures and marketing;
2. multi-sector measures for rural development;

3. agricultural environment and compensatory measures as well as environmental protection measures in conjunction with agriculture and forestry, landscape conservation and the improvement of animal protection.

## 5.2 Rural development policy and related measures

### 5.2.1 Rural development plan

Lower Saxony has put forward a rural development plan, combining sectoral, multisectoral and environmental measures in an integrated approach. The overall priority is to make a sustainable contribution to the economic competitiveness and the ecological functions of the rural areas. An overview of the proposed measures in the RPD for Lower Saxony is presented in Figure 5.1.

RDR-Measure	No.	Planned measures in RDR
1 art 4-7		<b>(a) Investment in agricultural holdings</b>
	a1	Objectives of support are: <ul style="list-style-type: none"> <li>- investments designed to improve competitiveness by means of rationalisation and cost-cutting;</li> <li>- in the conventional production of dairy or beef cattle and pigs and the use of open-air enclosures or of barns in which laying hens can move about freely, capacities may be increased subject to certain conditions;</li> <li>- in the organic production of milk, beef, pork, eggs and poultry, capacities may be increased;</li> <li>- investments designed to improve environmental protection, conditions of production, working conditions, energy use, animal welfare and animal hygiene;</li> <li>- Investments in the diversification of activities;</li> <li>- support for the relocation of farmsteads in the public interest;</li> <li>- land purchase in special cases;</li> <li>- landscaping in connection with building projects;</li> <li>- investments in machinery required for a switch to organic farming by 31 December 2000;</li> <li>- investments in environmental technology with a view to improving environmental protection and animal welfare and reducing the risk of epidemics and the level of emissions.</li> </ul>
3 art 9		<b>(c) Training</b>
	c1	Vocational training and specialised symposia in order to prepare farmers, forest and woodland owners and other persons engaged in farming and forestry activities to undertake: <ul style="list-style-type: none"> <li>- upgrading production quality to new standards and applying production methods which are compatible with the requirements of countryside conservation and development, environmental protection, hygiene and animal welfare; the training is designed to equip recipients with the skills they need to run economically viable businesses;</li> <li>- applying forestry-management methods with which the economic, ecological and recreational function of forests and woodland can be more</li> </ul>

		effectively performed.
5. art 13-21		<b>(e) Less favoured areas and areas with environmental restrictions</b>
	e1	Compensatory allowances for naturally less favoured areas
	e2	<i>Compensatory allowances for conservation areas</i> The purpose of this scheme is to support less intensive use of grassland for agricultural production as a contribution to the long-term preservation of the valuable grassland biotopes which are characteristic of Lower Saxony. This measure operates in areas notified by the federal state of Lower Saxony as Natura 2000 areas and in the areas that serve as stepping stones within the meaning of Article 10 of the Fauna and Flora Directive (92/43/EEC). The hardship allowance serves to compensate farmers for any significant difficulties or restrictions which affect their farming of grassland areas.
6 art 22-24		<b>(f) Agri-environment</b>
	f1	<i>Preservation of genetic diversity in livestock breeding and conservation of breeds facing the threat of extinction</i> Subject of support are old endangered breeds of domestic cows, horses and ewes with a view to halting the decline in their numbers.
	f2	<i>Lower Saxony Agricultural Environment Programme (NAU)</i> The primary aim of the programme is to make an active contribution to the protection of abiotic resources (this aim applies to all support schemes except scheme D). Aid is awarded for participation in the following schemes: a. promotion of less intensive production methods for perennial crops; b. promotion of less intensive use of grassland; c. promotion of organic cultivation methods; d. promotion of ten-year set-aside.
	f3	<i>Protection and development of the habitats of plant and animal species in specific areas</i> Promotion of management methods compatible with nature conservation in specific types of designated area with special potential in terms of the protection of development of animal species and biotopes. The scheme comprises the following support options: a. preservation, care and development of certain biotope types; b. preservation, development and rehabilitation of wetlands in large expanses of countryside; c. preservation and development of permanent grassland in nature reserves, national parks as well as biotope reservates according to German Nature Protection Law; d. measures for the protection of plant and animal species on arable land with particular development potential.
	f4	<i>Protection of drinking water in priority areas by means of water-sensitive farming methods</i> The scheme comprises the following support options: a. extensive management and continued use of grassland; b. conversion of arable land into extensively managed grassland; c. management of arable land set aside in accordance with Regulation (EC) No 1251/1999 within the mandatory and voluntary set aside of arable land, which go beyond the requirements set forth in Article 6(2) of the said Regulation; d. management of part of a holding in accordance with organic farming principles; e. water-sensitive organic management measures which exceed the management requirements laid down in Regulation (EEC) No 2092/91.



7 art.25-28		<b>(g) Improving processing and marketing of agricultural products</b>
	g1	The measure is split up in into three schemes: <ul style="list-style-type: none"> <li>- support for improving market structures, for the German Market Structure Act and for investments for the collection, the storage, cooling, sorting out, preparation for marketing, labelling, processing of organic and regional production;</li> <li>- support for the promotion of projects designed to safeguard the economic structure of rural areas;</li> <li>- support for collective facilities for the local marketing of several agricultural products.</li> </ul>
8 art.29-32		<b>(h) Afforestation of agricultural land</b>
	h1	Objects of support: <ul style="list-style-type: none"> <li>- Cost of the initial afforestation of agricultural land (investments);</li> <li>- Maintenance of the newly afforested areas for the first five years;</li> <li>- Premium to compensate for loss of income resulting from afforestation during the first 20 years;</li> <li>- Investments made in connection with initial afforestation.</li> </ul>
		<b>(i) Other forestry measures</b>
	i1	This measure offers support for: <ul style="list-style-type: none"> <li>- initial afforestation of land which is not eligible under Article 31;</li> <li>- investments in forests aimed at significantly improving their economic, ecological or social value;</li> <li>- investments to improve and rationalise the harvesting, processing and marketing of forestry products;</li> <li>- establishment of associations of forest holders.</li> </ul>
	i2	The average age of woodland stocks in Lower Saxony is low. Since much of the re-afforestation has comprised monocultures, the regional authorities are pursuing a strategy of diversification to develop a more natural type of forestry management. Objectives of support are: <ul style="list-style-type: none"> <li>- Forestry protection measures;</li> <li>- Forestry counselling;</li> <li>- Forest inventories;</li> <li>- Rehabilitation of forestry damaged by forest fires;</li> <li>- promotion of new outlets for the use and marketing of forestry products.</li> </ul>
	i3	<i>Measures designed to maintain and improve the ecological stability of forests and woodland</i> Assistance includes annual payments for contractually fixed measures, which maintain and improve the sustainable protective and ecological role of forests.
9 art 33		<b>(k) Reparcelling</b>
	k1	<i>Measures for the restructuring of land ownership:</i> 1. Land consolidation Support funds may be used to finance the rearrangement of rural land ownership and the organisation of rural areas by means of measures designed to improve the farming structure, including measures designed to guarantee strong and sustainable ecosystems. 2. Voluntary land exchanges Support may be granted for the voluntary exchanging of land in a quick and simple procedure with a view to improving the farming structure while taking account of the need to guarantee strong and sustainable ecosystems.

	k2	<p><i>Supplementary measures for the preservation and development of diverse and ecologically productive farmland:</i></p> <ul style="list-style-type: none"> <li>- provision of land for purposes of nature conservation and countryside maintenance management;</li> <li>- nature-conservation and countryside-maintenance measures and recreational use of the countryside.</li> </ul>
		<b>(m) Marketing of quality agricultural products</b>
	m1	<p><i>Marketing of quality agricultural products coming from priority areas for water supply</i></p> <p>Assistance is granted for the establishment and the implementation of marketing concepts for organic products in the sense of Reg. 2092/91, which are produced by holdings with fields in priority zones for water supply. Objective of this measure is to animate as much holdings and enterprises as possible in order to produce, to process and to market organic products and thus to increase the number of fields in priority zones for water supply worked according to organic principles and to add to the promotion of ground water protection.</p>
		<b>(n) Basic services for the rural economy and population</b>
	n1	<p>Subjects of support are:</p> <ul style="list-style-type: none"> <li>- establishment of village or neighbourhood shops, including the necessary analyses of the market and location and the provision of basic business counselling (no assistance for retail trade chains);</li> <li>- public and community facilities providing access to information and communications technology, such as cybercafés and copy shops;</li> <li>- establishment of rural service agencies.</li> </ul>
		<b>(o) Renovation and development of villages and protection and conservation of the rural heritage</b>
	o1	<p>Objects of support:</p> <ul style="list-style-type: none"> <li>- village-renovation schemes designed to improve the entire farming structure;</li> <li>- measures taken by farming and forestry businesses to diversify the use of their buildings;</li> <li>- measures designed to preserve the appearance of the village and the surrounding countryside and to safeguard the rural heritage.</li> </ul>
		<b>(r) Development and improvement of infrastructure connected with the development of agriculture</b>
	r1	<p>Objects of support:</p> <ul style="list-style-type: none"> <li>- planning the development of farming structures;</li> <li>- construction of rural roadways (i.e. construction of new metalled roads and hardening of unmetalled and inadequately metalled tracks and service or farm roads, including any necessary bridges, land acquisition, compensatory nature-conservation measures and subsequent);</li> <li>- agricultural development facilities in connection with urban planning;</li> <li>- construction, improvement and refurbishment of collective agricultural facilities, such as environmentally friendly washing, refuelling and maintenance areas.</li> </ul>
		<b>(s) Encouragement for tourist and craft activities</b>
	s1	<p>Under this measure support is given for promotion of tourist activities, promotion of rural crafts and for the enlargement of an existing horticultural centre with an attached arboretum for ornamental trees.</p>
		<b>(t) Protection of the environment in connection with agriculture, forestry and landscape conservation as well as the improvement of animal welfare</b>
	t1	<p><i>Promotion of new strategies in the agri-environmental domain</i></p> <p>The aim of this scheme is to support new strategies relating to agriculture and the</p>

		environment, by a number of pilot projects. The common feature of these projects is that they are models designed to address problems connected with agricultural emissions and the pollution of farmland. The projects envisaged under this scheme are intended to yield solutions which are transferable to other regions with similar problems.
	t2	<i>Nature- and landscape-conservation measures in specific areas</i> The aim of this scheme is to promote measures designed to improve the natural environment by safeguarding valuable tracts of land and restoring viable biospheres. The scheme comprises: a. preservation, care and development of nature and the landscape in nature reserves, national parks, biosphere reserves, areas covered by a state nature-conservation programme and areas which are already part of the Natura 2000 European ecological network; b. near-natural design of water bodies (establishment of wildlife-friendly water margins, protective planting to reduce nutrient loss and soil erosion, restructuring of water courses, embankments and alluvial meadows and their surroundings, removal and redesigning of obstacles to the functioning of ecosystems).
	t3	<i>Measures and investments for the care, restoration and improvement of wetlands</i> This scheme accompanies the agri-environmental programme and comprises the following support options: - investments in the preservation and care of wetlands; - measures designed to restore and improve the functioning of wetland biospheres.
	t4	<i>Other measures for the protection of drinking water</i> This scheme provides aid for agricultural measures designed to protect water bodies and watercourses, aimed at a long lasting contribution to the protection of ground water. Support is given for: - the purchase and leasing of land by public water-supply companies as a means of promoting the protection of water resources in the context of land management; - collateral measures of water-friendly organic land management; - model and pilot projects on the protection of water resources in farming and forestry.
		<b>(u) Restoring agricultural potential damaged by natural disasters and introducing appropriate prevention instruments</b>
	u1	<i>Coastal protection</i> This measure aims at the protection of agricultural areas by dyke strengthening in selected parts of the region.
	u2	<i>Inland flood prevention</i> This measure foresees in dyke-reinforcement work in selected parts of the region and comprises construction, strengthening and raising of flood barriers, including essential roadways.

Figure 5.2 Overview of the measures in the RPD of Lower Saxony

The total public expenditure is € 1,684 million. In Lower Saxony two-thirds of the budget for the RPD is reserved for art. 33 (Table 5.3), in particular the following measures:

- (u) Restoring agricultural potential damaged by natural disasters and introducing appropriate prevention instruments (26%);
- (o) Renovation and development of villages and protection and conservation of the rural heritage (16%);
- (k) Reparcelling (12%).

A smaller, but nevertheless a substantial part of the RDP is allocated to measures for investments in agricultural holdings (a) and agri-environmental measures (f), such as the maintenance of biotopes, the protection of wetlands and permanent grassland.

Table 5.3 Total public expenditure, 2000-2006 (mln. euro)

Art. 1257/99	Measures	Sub Total	National top-up	Total	In % of to- tal
4-7	a Investment in agricultural holdings	256.13	-	256.13	15.2
9	c Training	9.91	-	9.91	0.6
13-21	e Less favoured areas and areas with environmental restrictions	4.37	-	4.37	0.3
22-24	f Agri-environment	149.27	6.23	155.5	9.2
25-28	g Improving processing and marketing of agricultural products	72.62	-	72.62	4.3
29-32	h Afforestation of agricultural land	16.66	-	16.66	1.0
29-32	i Other forestry measures	51.12	-	51.12	3.0
	Article 29-32, total	67.78	-	67.78	4.0
33	k Reparcelling	114.07	86.8	200.87	11.9
33	m Marketing of quality agricultural products	3.12	-	3.12	0.2
33	n Basic services for the rural economy and population	3.64	-	3.64	0.2
33	o Renovation and development of villages and protection and conservation of the rural heritage	261.33	-	261.33	15.5
33	r Development and improvement of infrastructure connected with the development of agriculture	133.05	-	133.05	7.9
33	s Encouragement for tourist and craft activities	11.74	-	11.74	0.7
33	t Protection of the environment in connection with agriculture, forestry and landscape conservation as well as the improvement of animal welfare	61.08	6.44	67.52	4.0
33	u Restoring agricultural production potential damaged by natural disasters and introducing appropriate prevention instruments	13.88	416.5	430.38	25.6
	Article 33, total	601.91	509.74	1111.65	66.0
	Other:				
	- Evaluations	0.83		0.83	0.1
	- Former accompanying measures	5.62		5.62	0.3
	- Transitory measures				
	TOTAL a)	1168	516	1684	100

a) The contribution of the EU is about 30%.

Source: Own calculations based on RDP of Lower Saxony.

## 5.2.2. Other rural development policy measures

### *Objective 2 programme*

The European Union will actively participate in the development of Lower Saxony by co-financing the Objective 2 programme for the region during 2000-2006. The Objective 2 area covers the regions of Braunschweig, Hannover, Weser-Ems and Lüneberg. The total cost of the programme amount to € 1,492.5 million, of which the EU Structural Funds will provide € 733.9 million (Objective 2 programme Lower Saxony, 2002).

### *Interreg III*

The EU Regional Development programmes Interreg in Lower Saxony consist of the economic development in the Ems-Dollart Region (IIIA) and the Baltic Sea Region (IIIB). The total costs of the programme (2000-2006) in the Ems-Dollart Region (the most northern German-Dutch border region) amount to € 86.753 million. The European Regional Development Fund (ERDF) contributes 40%. The main priorities are (EC, 2002b):

1. improving the physical infrastructure;
2. promotion of economic, scientific and technological collaboration to create structural jobs;
3. protection of the natural environment.

The EU is a partly financing the development of the Baltic Sea Region (Interreg IIIB transnational co-operation programme). The benefiting countries or regions are Denmark, North-East Germany, Sweden and Finland, but also the non-EU countries Norway, Estonia, Latvia, Lithuania, Poland, Russia and Belarus. The programme provides a Community contribution of € 97.11 million. The total contribution of the EU to the Baltic Sea Region is € 186.51 million for the period 2000-2006. About 50% of the budget is for the promotion of territorial structures supporting sustainable Baltic Sea Region (BSR) development (EC, 2002b).

### *LEADER+*

The LEADER+ programme for Lower Saxony covers all its rural area and 81 % of its population (LEADER+, 2002). In Lower Saxony, the priorities are the promotion of integrated and sustainable development, the improvement of the basic economic conditions with a view to creating jobs, the improvement of the employment options for women and young people and the enhancement of the natural and cultural heritage. It is expected that the programme will support about 15 to 20 Local Action Groups. The total funds available for LEADER+ during 2000-2006 amount to € 93.6 million, of which € 24.6 million is cofinanced by the EU Structural Funds.

## *National or federal rural programmes*

### *1. National RDP of Germany*

The RDPs of the federal states incorporate the general framework regulations of the national RDP of Germany. The German policy model gives federal states a high degree of autonomy. The operational objectives of the national RDP are quantified in the programmes of the federal states, as well as the appraisal showing the expected economic, environmental and social impact. The indicative financial tables submitted by the federal states in their Rural Development Plans are the basis for co-financing decisions by the EU Commission. So it can be said that a large part of the competences with regard to rural development policy is at the level of the federal states, such as regional policy and the policy for nature conservation, development of agriculture and environment.

The national RDP of Germany contains the following priorities:

1. improvement of rural structures
2. improvement of production and marketing structures
3. sustainable land management
4. forestry: promotion of forestry management
5. coastal protection: measures to improve protection against effects of storm tides on North Sea and Baltic Sea coasts and on surface rivers and watercourses in the tidal region.

### *2. Verbesserung der Agrarstruktur und des Kustenschutzes (GAK)*

One of the major tasks under the responsibility of the federal states is the improvement of the agricultural structure and the coastal protection (GAK). The main objectives of GAK are:

- improvement of competitiveness and market structure of agriculture and forestry;
- improved integration of agriculture and forestry into rural economy;
- improvement of compensating functions of rural areas concerning housing, economy, recreation and ecology;
- support of a sustainable land use to local conditions by considering demands of health, environmental and wildlife protection;
- coastal protection.

GAK can be used for implementing and co-financing the EU Structural Funds as well as the RDR. Usually, the contribution of the federal states is 50%. The measures within GAK, such as co-financing private investments on farms, reallocation of land, improvement of villages, water management and coastal protection, are directed at integrated rural development and enhancement of nature and environment.

### *3. Verbesserung der Regionalen Wirtschaftsstruktur (GRW)*

Another common task under the responsibility of the federal states is the improvement of the regional economic structure (GRW). The priority of GRW is to enhance competitiveness and adaptation in underdeveloped regions and regions characterised by structural

problems. Criteria for support are the employment situation, the average level of income and equipment infrastructure.

#### 4. Other rural measures

There are some (federal) programmes for Lower Saxony as a whole, such as:

- Lower Saxony Agricultural Environment Programme (NAU);
- Lower Saxony Forest and Wood Land Programme;
- federal measures to reduce the environmental problems in some areas like Cloppenburg and Vechta in the southwest.

Within Lower Saxony there are already some ideas how to interpret cross compliance:

- no reduction on Mac Sharry subsidies, when farmers implement Good Agricultural Practice in their production system;
- participation of farmers in certification processes. The goal is to ensure the quality of agricultural products to consumers.

### 5.3 Assessment

The RPD for Lower Saxony identifies three main priorities:

1. improvement of production structures and marketing;
2. multi-sector measures for rural development;
3. agricultural environment and compensatory measures in conjunction with agriculture and forestry, landscape conservation and the improvement of animal protection.

In Fig. 5.3 we have classified the planned RDP measures according to these priorities. Below the measures are discussed and assessed whether the proposed measures contribute to rural development priorities.

Rural development priorities	Planned measures in RDP
1. Improvement of production structures and marketing;	a1, c1, g1, m1 (20% of the RDP budget)
2. Multi-sector measures for rural development;	n1, o1, r1, s1 (25% of the RDP budget)
3. Agricultural environment and compensatory measures in conjunction with agriculture and forestry, landscape conservation and the improvement of animal protection.	e1, f1, f2, f3, f4, h1, i1, i2, i3, k1, k2, t1, t2, t3, t4, u1, u2 (55% of the RDP budget)

Figure 5.3 Planned RDP measures according to the rural development priorities in Lower Saxony

#### *Key priority 1: Improvement of production structures and marketing*

In order to improve production structures in agriculture and forestry the next measures are supported by the RDP of Lower Saxony:

- investments in agricultural holdings (15% of total budget), also in favour of the GAK (improving the structure of the agriculture);
- support for training of farmers (0.6%), to upgrade production quality to run economically viable businesses and to apply forestry-management methods;
- improve the processing and marketing of agricultural production (4.3%) by improving market structures, supporting the promotion of projects designed to safeguard the economic structure of rural areas and supporting collective facilities for the local marketing of several agricultural products;
- a small amount (0.2%) for marketing of quality of agricultural products from priority areas for water supply.

A substantial amount is available for investments (measure a) to strengthen the structure of agriculture and diminish the environmental problems. At farm level, this is an amount of € 3,500 in the period 2000-2006. A relatively large part of measure a is also funded by the national program GAK, stimulating the competitiveness and market structure of agriculture and forestry by co-financing investments in private farms.

#### *Key priority 2: Multi-sector measures for rural development*

To enhance rural development in the region a number of multi-sector measures are implemented, such as:

- development of villages and the rural cultural heritage (15%);
- a more sustainable development and improvement of the agricultural infrastructure, by means of land acquisition, new roads, measures for compensatory nature-conservation and land budget (8%);
- small budgets for promotion of tourist activities and creation of basic services for rural economy and population.

Two multi-sector measures in the RPD of Lower Saxony support rural development substantially. A large part (80%) of Lower Saxony consists of rural areas, so on the whole, the total amount for priority 2 is rather low (€ 8,000 per km<sup>2</sup> in rural areas for a period of 6 years). Tourism is a relatively strong and growing sector in the economy of lower Saxony. In the RDP, tourism is hardly promoted by encouraging tourist and craft activities, but rather by supporting the development of rural cultural heritage and better living conditions in the villages. About 8% of the total expenditure is reserved for the sustainable development of the agricultural infrastructure in relation to rural development.

#### *Key priority 3: Agricultural environment and compensatory measures in conjunction with agriculture and forestry landscape conservation and the improvement of animal protection*

To maintain the possibilities for agricultural and forestry development in co-operation with environmental protection, landscape conservation and animal protection, the next measures are important:

- preserving and developing biological diversity. One can think of the maintenance of species dependent on extensive farming, the protection and promotion of endangered



- animal and plant species and the maintenance of development of valuable biotope areas and landscape structures;
- securing and developing soil, water, climate and air. Prevention of air pollution, soil pollution and ground water pollution, and maintenance and development of flowing water bodies;
- maintenance of endangered agriculturally used cultural landscapes as well as the diversity, uniqueness and beauty of the landscapes;
- solutions for the conflict between recreation and natural protection.

By far the largest part of the total RDP budget reserved for this priority (55%). Of the financial means for this priority, about half is reserved to support the restoring of agricultural production potential damaged by natural disasters and introducing appropriate prevention instruments. About 10% of the total budget is reserved for measure f (agri-environment: protection of drinking water, plants, wetlands, domestic animals, organic production methods). This measure has a direct relation with the Lower Saxony Agricultural Environment Programme (NAU: less intensive and more organic production methods), which operates in the Gemeinschaftsaufgabe (GA). Assuming an annual premium of EUR 250 per hectare (for six years) the reserved budget for measure f can support about 100,000 ha. The total agricultural area is 2.7 million hectare, so only a small percentage (3.7%) hectare can be supported. In Lower Saxony, a rather high percentage of the region consists of less favoured areas (57% of the agricultural area). In the RDP, hardly any financial means are reserved for LFA. In the period 2000-2006, € 200 million is reserved for reparacling (measure k). When assuming a support of € 1,000 per hectare (in six years) for restructuring landownership and stimulating diverse and ecologically production methods, a surface of 200,000 hectare can be supported. Only a small part of the budget is reserved to afforestation of agricultural land to create new forestry and to create a more natural type of forestry management.

#### **5.4 Concluding remarks**

Lower Saxony is a large and heterogeneous region: apart from big cities such as Hanover, a large part of the region consists of rural areas. Over 80% of the surface consists of agricultural land and forests. A substantial part is also characterised as less favoured area. Tourism is an important economic activity for the region. A large part of the tourist activities is related to water, forests, hills and mountains.

The emphasis in the RDP of Lower Saxony is on article 33 measures. A large part of the budget is reserved for coastal protection and the prevention of inland flood. In addition, a high share of the total budget is directly or indirectly reserved for supporting the structure of the agricultural sector by several measures, usually in combination with good agricultural practices and sound environmental management. In the RDP there are relatively few financial means available for stimulating the quality and quantity of forests and for strengthening of tourism. Priority 2 on multi-sector measures for rural development is especially directed at renewal and development of the rural villages or the living conditions of inhabitants.

## 6. Case study Wales

### 6.1 Description of the case study region

Due to the early industrialization and urbanization in the UK, there is a strong tradition to consider rural areas as consumption space of landscape and nature. This so-called 'naturalist tradition' results in an idealised countryside-outside industrialised towns with its poor living conditions-which functions as a mainstay for urban dwellers (Hoggart et al., 1995). This naturalist tradition explains the existence of a well-established landscape and nature conservation lobby in the UK. Until the 1990s, rural policy in the UK mainly focused on grant aid for the establishment of rural industries and social and community development through support for village halls and services. Simultaneously, agricultural policy was sectoral policy, separated from rural policy. Only during the last decade, rural development policy became more engaged with agricultural and countryside management issues (Ward, 2000). The UK institutional reform of 1999 resulted in a devolution of responsibilities. Since that date, rural development policies is with the devolved administrations in Scotland, Wales, Northern Ireland and England.

#### *Function of the region*

Wales is a mountainous country (with more than half of the land above 200 m and much over 600 m) surrounded by the sea on three sides and the English plains to the east. The region can be split in a rural part in West, Mid and North Wales and an urban/industrial part in the South. The great coal basin in the South has been exploited intensively since the 18th century. As such, for a long time Wales was the main iron and steel-producing region in the UK. Due to a restructuring of the traditional industrial activities, the South is nowadays a centre with modernised heavy industry, electronics industry, chemical industry and information technology with main town-ports such as Cardiff (300,000 inh.), Swansea (200,000 inh.) and Newport (150,000 inh.) (Rural Europe, 2000). The rural parts of Wales are characterised by a scattered population. The subsequent high costs of providing public facilities have led to an erosion of various services in rural areas (Rural Europe, 2000). Although on the whole, rural Wales managed to maintain employment and population during the last decade, the most remote rural parts faced a decline of jobs and population.



Figure 6.1 Map of the region

Source: CEC (1993b), Portrait of the regions; Volume 2: France, UK and Ireland; Luxembourg.

Average GDP/capita in Wales amounts to about 80% of the UK average. As the economic restructuring process in the South has not yet been completed, a large part of the southeastern area is eligible under Objective 2 in the programming period 2000-2006, while the western part of Wales and the Valleys (a number of counties in the South) are under Objective 1. Unemployment rates in Wales are somewhat higher than in the UK (8.8% versus 8.3% in 1995); the same applies for inactivity rates (25 versus 21% in 1999) (RDP Wales, 2000: 59, 68).

The function of the region can be characterized as a tourist function. Both natural and cultural heritage contribute to an increase in rural tourism. Visitors to Wales are coming mainly from elsewhere in the UK and to a lesser extent from abroad.

### *Natural and cultural heritage*

Welsh rural areas are endowed with a rich natural environment: it has three National Parks and five Areas of Outstanding Natural Beauty, which cover together a third of the surface area of Wales (Rural Europe, 2000). The National Parks cover living and vibrant landscapes in which thousands of people live and work. In these Parks, the natural beauty and

diversity are preserved and enhanced and the enjoyment of the area by public is promoted. In the Areas of Outstanding Natural Beauty, the countryside is protected and enhanced. Over 900 Sites of Special Scientific Interest (SSSI) - a network covering one tenth of the land area of Wales with important places for wildlife habitats, plants and animals, geological features and landforms - are designated. Finally, there are 62 National Nature Reserves: fragile systems, such as wetlands, upland habitats, heathlands and woodlands, which require careful supervision to maintain and enhance their ecological value. The above mentioned areas are the central core of the statutory conservation system in Wales (CCW, 2001).

In the scope of the EU Birds and Habitat Directives, a coherent ecological network of protected areas across the EU - known as Natura 2000 - will be created. Special Protection Areas (SPAs) for rare and migratory birds species and Special Areas of Conservation (SACs) for rare habitats and animals and species will be designated (RDP Wales, 2000:40-1).

Wales has also a unique cultural heritage conveyed through the Welsh language. This language reinforces Welsh identity and is considered as an important lever in rural development.

### *Agriculture*

The share of agriculture in total employment of less than 3% is moderate (Table 6.1). The annual decline of the agricultural workforce amounts to 5%. Agriculture consists mainly of livestock farming, especially sheep farming. Hence the average farm size in hectares is rather high (over 50 ha), but its intensity is low. Almost 80% of the utilised agricultural area is characterised as LFA.

*Table 6.1 Some characteristics of the agricultural sector in Wales*

Share agriculture in total employment, 1999 (%)	2.7
Growth agricultural employment, 1989-1999 (% p.a.)	-5.0
Share LFA in utilised agricultural area, 1997 (%)	77
Share of farm holders with other gainful activity, 1997 (%)	28
Share of part time farm holders, 1997 (%)	43
Utilised agricultural area per agricultural holding in 1997 (hectares)	51
Standard gross margins per agricultural holding in 1997 (European Size Units)	25
Standard gross margins per hectare utilised agricultural area in 1997 (European Size Units)	0.5
Total number of farm holdings	27,940
Specification of EU farming types (% of total):	
Specialist grazing livestock	91
<i>of which:</i>	
- specialist dairying	15
- specialist cattle-rearing and fattening	13
- cattle-dairying, rearing and fattening combined	1
- sheep, goats and other grazing livestock	61

Source: Own calculations based on Eurostat, Luxembourg.

During recent years agriculture has suffered from a number of worse circumstances, such as the BSE crisis, the strength of the Sterling vis-à-vis the euro, low levels of demand in certain key export markets, particularly Russia, and the foot and mouth disease. This resulted in a rapid decline in agricultural income: the average farm income in 1999 amounted to less than half of that in 1990 (RDP Wales, 2000:86).

### *Tourism*

The varied, natural and attractive landscapes enhance the tourist industry in rural areas. However, tourist activities in Wales are mainly seasonal, too dependent on internal markets, provide relatively low paid work for the rural workforce and are concentrated on markets that are either stagnating or declining (long-term stay and business tourism for instance). Despite these difficulties, rural tourism has been identified as a potential growth sector for the region's economy. As tourists become more discerning and demand higher service provision, there is a need for the industry to adapt and capitalise on these changes in the market. The share of tourism in GDP amounts to about 5% (Rural Europe, 2000).

### *Other economic activities*

On the whole, during the last two decades employment loss in the agricultural sector was compensated by employment growth in the other economic sectors. The service sector in rural Wales employs about seven out of every ten employees, due to public investment and policy intervention (Rural Europe, 2000).

### *Environmental concerns*

Traditional farming practices have had a profound influence on the intrinsic character of the countryside and produced interesting and valuable habitats. The change in agricultural practices is one of the greatest threats to the Welsh countryside, but pressure is also exerted by tourism, non-agricultural developments and transport (RDP Wales, 2000:32). Since 1980 the number of cattle has fallen by 5%, whereas the number of sheep has increased by more than one third (RDP Wales, 2000:113). These changing stocking rates have severe consequences for the important heather landscape. Cattle help maintain the heather and grass moorland by trampling the bracken and grazing the coarse grasses. The loss of cattle allow these invasive plants to take over. Sheep are more selective grazers than cattle and do not control the coarse grasses that compete with heather, nor do they trample bracken as effectively as cattle (Lowe *et al.*, 1998:114). In the arable sector, the area devoted to cereals has declined by 21% since 1987 (RDP Wales, 2000:113). The shift from cattle to sheep and the decline in arable production have large consequences on landscape diversity as well as on habitats and species. Moreover, the decline in the agricultural labour force makes it increasingly difficult to maintain traditional field boundaries: the length of these has declined by almost 30% between 1984 and 1990 (RDP Wales, 2000:115). These field boundaries have an important value for a wide range of species.

Since the late 1980s, voluntary agri-environmental schemes have been introduced for farmers and landowners with an interest in conservation (RDP Wales, 2000:37). These

schemes covered specific areas of Wales (Environmentally Sensitive Areas (1987) and Tir Cymen (1992)) or specific habitats (the Habitat and Moorland Scheme (1995)). In 1999, these schemes were replaced by the Tir Gofal (Welsh for 'land in care') Scheme, which covers the whole area of Wales. The Tir Gofal Scheme compensates farmers for caring historic and cultural features and wildlife on their land by using 10-year agreements.

### *Development priorities*

In 1999, the National Assembly of Wales has presented a national Economic Development Strategy with seven key priorities for rural Wales (RDP Wales, 2000:146):

1. promoting business development;
2. spreading economic prosperity;
3. developing skills to match business needs;
4. strengthening communities;
5. improving access to rural services;
6. investing in the rural infrastructure
7. enhancing the rural environment.

The Rural Development Plan Wales 2000-2006 only addresses the priorities relating to agriculture and forestry. These are:

1. to create stronger agriculture and forestry sectors;
2. to improve the economic competitiveness of rural communities and areas;
3. to maintain and protect the environment and rural heritage.

## **6.2 Rural development policy and related measures**

### 6.2.1 Rural Development Plan

An overview of the proposed measures in the RPD for Wales is presented in Fig. 6.2.

RDR measure	no.	Planned measures in RDR
1 art. 4-7		<b>(a) Investment in agricultural holdings</b>
	a1	<i>The Farm Improvement Grant</i> This will help farmers to adopt best practice and to go beyond the minimum standards, which are required, and to enhance, protect and maintain the environment of the farm. There are three categories of eligible activities: <ol style="list-style-type: none"> <li>1. preserving and improving the natural environment;</li> <li>2. pollution and waste management;</li> <li>3. animal welfare, stock and crop management.</li> </ol>
	a2	<i>The Farm Enterprise Grant</i> This grant will provide assistance for investments directed at diversification of, and towards, agricultural activity. Support for diversification towards non-agricultural activity will be supported under measure (p). The scheme will also support groups of farmers who have established an organisation for the purpose of purchasing items that if purchased by an individual would be regarded as such an investment.

		This grant scheme would include support for the development of miscanthus (elephant grass) and other biomass crops.
	a3	<i>The Small Food Processors Grant</i> This grant will help farmers to start up new, and develop existing, small-scale added value processing on their farms. Assistance will be provided for the construction of new buildings, the conversion of existing buildings (disused or otherwise) and the purchase of equipment specifically for added value processing.
3 art. 9		<b>(c) Training</b>
	c1	The National Assembly has set up the Farm Development Strategy Group and given it the remit to develop plans for a coherent, Wales-wide strategy for training for farmers and their families to help them adapt. There are three training packages: <i>1. agriculture training</i> (preparation for qualitative reorientation of production; animal welfare; acquisition of skills to manage an economically viable farm; environment; marketing; new enterprises; organic farming; diversification; food production); <i>2. forestry training</i> (establishment of operations; management operations; harvesting operations; health/safety training; adding value training); <i>3. biomass training</i> Provision will be made for the delivery of appropriate training and advisory packages to farmers and foresters, covering the production of short rotation coppice and other crops as appropriate as well as harvesting of forest residues.
5 art.13-21		<b>(e) Less favoured areas and areas with environmental restrictions</b>
	e1	The new Tir Mynydd scheme ( Welsh for 'hill land') for paying compensatory allowances to farmers in LFA has 2 basic elements: 1. a standard payment per hectare with two rates reflecting the severity of the disadvantage in Severely Disadvantaged Areas (SDA) and Disadvantaged Areas (DA); 2. an additional payment to encourage sustainable farming systems, which take account of protecting the environment. This element has seven indicators, each with a score value of one point. Farmers who score one point will have an increase of up to 10% to the payment under (1). Farmers who score two points or more will have an increase of up to 20%.
6 art.22-24		<b>(f) Agri-environment</b>
	f1	<i>Tir Gofal (Welsh for 'land in care')</i> Tir Gofal is an integrated whole farm scheme consisting of 5 main components: <i>1. whole farm section</i> The Whole Farm Section seeks to ensure that the management of the land entered into the scheme is compatible with good environmental practice. These measures are over and above the requirements of the Code of Good Agricultural Practice for the territory. The Whole Farm Section is aimed primarily at the protection of landscape, wildlife and historic features as well as the maintenance of opportunities for public access to the countryside. <i>2. obligatory management of habitats</i> Under this part of the scheme, farmers receive annual payments per hectare in return for managing their land according to a set of detailed prescriptions. In the event that any of the listed habitats (woodland and scrub, heathland, grasslands, wetlands and coastal land) are present on the farm, it is mandatory to enter those habitats into the scheme and to comply with the detailed prescriptions laid down for that measure. <i>3. optional management of habitats</i>

		<p>Farmers receive annual payments for managing landscape features, arable land management, grassland restoration to enhance habitats and features and establishment of new habitats on their land according to a set of detailed prescriptions. This part of the scheme is particularly valuable as a means of restoring those parts of Wales particularly affected by past agricultural intensification.</p> <p><i>4. provision of public access</i></p> <p>All of the new public access measures are optional on the part of farmers and their acceptance is discretionary on the part of scheme administrators. Proposals will only be accepted on enclosed land. Payments are on a per hectare per annum or per metre per annum basis.</p> <p><i>5. additional works</i></p> <p>The Tir Gofal Scheme makes provision for additional works designed to assist with the protection and management of both habitats and features. Prior to signing a Tir Gofal agreement, participants are obliged to agree a comprehensive 5 year work programme with the Project Officer. This work programme can be extended for a further 5 years once the agreement has reached its mid point review stage.</p>
	f2	<p><i>Organic Farming Scheme</i></p> <p>Aid for converting to organic production.</p>
7 art.25-28		<b>(g) Improving processing and marketing of agricultural products</b>
	g1	<p><i>Processing and Marketing Grant Scheme</i></p> <p>The overall aims of the measure are to help Welsh producers and processors of agricultural products and food to increase their competitiveness, to process more produce within Wales and to gain an increased share of the UK market. This will bring more added value processing and jobs to those parts of Wales covered by the Plan and improve the long term viability of those areas. The support covers four key sectors in Wales; lamb, beef, dairy and organic products (including organic milk, cheese etc; eggs and livestock including poultry and pigs). Support will be given for:</p> <ul style="list-style-type: none"> <li>- the construction of new buildings;</li> <li>- the refurbishment of old buildings; and</li> <li>- the purchase of new equipment.</li> </ul>
8 art.29-32		<b>(h) Afforestation of agricultural land</b>
	h1	<p><i>Woodland Grant Scheme</i></p> <p>This scheme will provide grants for afforestation on agricultural land and for establishing short-rotation coppice.</p>
		<b>(i) Other forestry measures</b>
	i1	<p><i>Woodland Grant Scheme</i></p> <p>Grants for afforestation as well as investments for improving the economic, social and environmental value of existing woodlands and forests will also be made through the Woodland Grant Scheme. Support will also be available for establishing short-rotation coppice.</p>
	i2	<p><i>Woodland Improvement Grant</i></p> <p>This measure aims to bring existing woodland back into active and sustainable management. There are four types of support:</p> <ul style="list-style-type: none"> <li>- to open up new, or improving, areas of woodland for public recreation;</li> <li>- helping to bring under-managed, or low commercial value, woodlands into active management;</li> <li>- assisting owners to manage their woodland in ways that will contribute to the UK Bio-diversity Action Plan;</li> <li>- assisting farmers and other landowners to undertake survey work and management planning in native woodlands. Such woodlands provide an important structural component within the Welsh landscape as well as being</li> </ul>



		of particular significance for wildlife.
	i3	<i>Sustainable Forestry Operations Grant</i> This grant is a contribution towards the costs of eligible investments necessary to secure significant environmental, social and economic improvements in these woodlands.
9 art.33		<b>(n) Basic services for the rural economy and population</b>
	n1	A lack of basic service provision limits the scope for the rural economy to develop fully. Improved service provision is seen as a prerequisite for encouraging the most economically able to work, to invest or set up businesses in rural Wales. Poor service provision is also a significant contributor to social isolation in many villages. Support will be provided to community partnerships for the cost-effective enhancement of basic services for the rural economy and population in East Wales. The measure will support community led projects that widen access to mainstream services for the rural economy and population or marginalized communities. Particular attention will be paid to how services can address aspects of social exclusion within remote rural areas or provide services that encourage entrepreneurship. Support under this indent will not be provided for core administration costs, profit-orientated private sector ventures, investments in education or health services, media facilities (e.g. television decoders etc.), travelling shops and general retail activity. Support for the renovation of shop-space where it will ensure the supply of basic goods will, however, be considered. Services supported under this indent will be expected to become self-sustaining within the Plan period.
	o1	<b>(o) Renovation and development of villages and protection and conservation of the rural heritage</b>
		Support should be provided to community partnerships for the renovation and development of villages (built fabric, streetscape and public spaces) and protection and conservation of the rural heritage in East Wales.
		<b>(p) Diversification of agricultural activities and activities close to agriculture to provide multiple activities or alternative incomes</b>
	p1	Support under this measure could be made available for: <ul style="list-style-type: none"> <li>- development of new non-agricultural enterprises;</li> <li>- reuse of redundant farm buildings;</li> <li>- provision of services such as secretarial or computing;</li> <li>- agri-tourism including bed and breakfast; recreational farm facilities (nature trails, open farm, quad bikes etc.) and fishing;</li> <li>- catering operations;</li> <li>- conversion of farm buildings into holiday accommodation, buildings for let as offices, craft workshops, light industrial units and community use etc.;</li> <li>- erection of new buildings for a limited number of non-agricultural uses;</li> <li>- assist the development of schemes to encourage wider pluriactivity opportunities for farmers and their family in the service and manufacturing industries including contracting.</li> </ul>
		<b>(s) Encouragement of tourist and craft activities</b>
	s1	Local communities will be encouraged to develop tourist and craft activities appropriate to their locality. Support will be for activities that provide for a high value return from tourism and/or help to extend the tourist season in the area. Support will be targeted on community led projects that encourage tourist and craft activities aimed at enhancing the contribution that these activities make to the rural economy, in particular those providing a high value return from tourism or help to extend the tourist season in the area.
		<b>(t) Protection of the environment in connection with agriculture, forestry and landscape conservation as well as the improvement of animal welfare</b>
	t1	<i>Public access</i>

		The Tir Gofal scheme and other environmental measures described in measure (f) provide the main mechanism through which the environmental objectives of the RDP will be addressed. All support to public access linked with the Tir Gofal scheme will be provided and financed under the terms of this measure (t).
	t2	<i>Animal welfare</i> Opportunities for environmental enhancement and improvements to animal welfare will be identified which do not qualify under the provisions of the agri-environment measure. If resources are sufficient these will be funded under this measure. Such opportunities might relate to the development of rural pursuits linked to the environment such as riparian habitat management and especially locally important aspects, which add value and which are not included in the other areas of this plan.
	t3	<i>Waste management and recycling</i> Schemes to cover waste management and recycling projects designed to improve the environment will also be included within measure (t).

Figure 6.2 Overview of the measures in the RPD of Wales

In order to get some insight into priorities in the long list of proposed measures in the RDP, it is useful to examine the distribution of expenditure among the various measures. From Table 6.2 it can easily be seen that 45% of expenditure will be used for LFA measures (art. 13-21) and also about 45% for agri-environmental measures (art. 22-24 and former accompanying measures). From this, it can be concluded that the emphasis in the Welsh RDP is on LFA and agri-environmental measures.

### 6.2.2 Other rural development policy measures

In the UK, rural development policy is nowadays both engaged in what happens on farms and in countryside management issues. In the 1990s, the Structural Funds introduced a kind of regional development policy which also focussed on rural areas, thereby combining social, economic and community development measures with those aimed at landscape and nature conservation in rural areas (Ward, 2000:8). In this section, we discuss some main other rural development measures, which are not covered by the RDP.

#### *Objective 1*

The Objective 1 area for the period 2000-2006 comprises Western Wales and the Valleys. The programme's key objectives are to promote (WEFO, 2000a:8):

- growth in GDP per capita (increase from 73 to 78% of the UK average);
- employment growth (to create 43,500 jobs by 2006);
- increased economic activity (to reduce the economically inactive by 35,000 by 2006).

In order to achieve these objectives, six priorities are formulated:

1. expanding and developing the SME base  
The aim of this priority is to generate wealth and employment for the region by supporting the growth of the SME sector;

Table 6.2 Total public expenditure, 2000-2006 (mln. euro)

art. 1257/99	Measures	Subtotal	National top-up	Modulation	Total	in % of total
4-7	a Investment in agricultural holdings	4.34	-	-	4.34	0.5
8	b Setting up of young farmers	-	-	-	-	-
9	c Training	3.44	5.3	-	8.74	1.1
10-12	d Early retirement	-	-	-	-	-
13-21	e Less favoured areas and areas with environmental restrictions	363.81	-	-	363.81	44.8
22-24	f Agri-environment	57.4	81.22	91.72	230.34	28.3
25-28	g Improving processing and marketing of agricultural products	8.12	11.86	-	19.98	2.5
29-32	h Afforestation of agricultural land	10.12	-	6.98	17.1	2.1
29-32	i Other forestry measures	1.74	1.74	-	3.48	0.4
	Article 29-32, total	11.86	-	-	20.58	2.5
33	n Basic services for the rural economy and population	2.32	3.89	-	6.21	0.8
33	o Renovation and development of villages and protection and conservation of the rural heritage	2.32	3.89	-	6.21	0.8
33	p Diversification of agricultural activities and activities close to agriculture to provide multiple activities or alternative incomes	1.26	2.06	-	3.32	0.4
33	s Encouragement for tourist and craft activities	2.32	3.89	-	6.21	0.8
33	t Protection of the environment in connection with agriculture, forestry and landscape conservation as well as the improvement of animal welfare	6.75	-	-	6.75	0.8
	Article 33, total	14.97	13.73	-	28.7	3.5
	Other:					
-	Evaluations	0	-	-	0	0.0
-	Former accompanying measures	136.15	-	-	136.15	16.8
	TOTAL a)	600.09	113.85	98.7	812.64	100.0

a) EU contribution is about 25%.

Source: Own calculations based on RDP of Wales, Tables 8.1-3.

2. developing innovation and the knowledge based economy  
The aim of this priority is to improve the competitiveness of the region through the acquisition and use of knowledge and new technologies;
3. community economic regeneration  
The aim of this priority is to combat social exclusion, by targeting on the most deprived communities to increase skills and employability, provide greater access to more diverse opportunities and to improve conditions for business;

4. developing people  
The aim of this priority is to reduce long-term unemployment, to reduce the impact of disadvantages faced by excluded groups, to extend access to learning and to reduce disadvantages faced by women in the labour market;
5. rural development and the sustainable use of natural resources  
The aim of this priority is to combine a healthy well-managed environment with economic productivity and viability;
6. strategic infrastructure development  
The aim of this priority is to secure additional investment and employment for the less developed parts of the region by promoting area based business investment, supported by key infrastructure improvements.  
The total funds available for Objective 1 during 2000-2006 amount to € 3.9 billion, of which 47% is cofinanced by the EU Structural Funds (WEFO, 2000a: 343).

### *Objective 2*

The Objective 2 area for the period 2000-2006 covers Eastern Wales (population about 272,000). The programme's key objectives are (WEFO, 2000b:6):

- to increase employment growth across the region;
- to promote economic diversification in the region;
- to develop sustainable communities.

In order to achieve these objectives, three priorities are formulated:

1. developing and expanding the SME base  
The overall aim is to strengthen the economic base of the region by promoting and supporting the birth, survival and growth rates of SME through support for innovation and SME development, financial support for SME and development of sites and premises for SME;
2. sustainable rural development  
The aim is to promote economic diversification in rural areas and support the efforts of communities to become vibrant and enterprising through rural economic development and building rural networks;
3. urban community generation  
The aim is to promote the economic generation of urban communities through capacity building, community initiatives and developing the social economy.  
The total funds available for Objective 2 during 2000-2006 amount to € 0.3 billion (including transitional programme), of which 40% is cofinanced by the EU Structural Funds (WEFO, 2000b:234).

### *LEADER+*

LEADER+ (2000-2006) will be delivered through three actions (Mehefin, 2001:105):

1. integrated territorial rural development strategies of a pilot nature, such as:
  - improving the quality of life in rural communities;
  - adding value to local products;

- making the best use of natural and cultural resources;
  - acquisition of skills;
  - management of Local Action Groups (LAGs), including training and skills development;
  - publicity and promotion of the activities of the LAGs.
2. support for cooperation between rural territories, in particular joint action with other LAGs within Wales, other parts of the UK and outside the UK.
  3. networking: contribution to the UK network of LAGs.

The total funds available for LEADER+ during 2000-2006 amount to € 31 million, of which 47% is cofinanced by the EU Structural Funds (Mehefin, 2001:127).

### *INTERREG*

Large parts of North and West Wales are covered by INTERREG, which contains among others a measure to promote rural development. This measure aims to contribute to the economic and social well-being of rural communities through promoting the development of rural areas, enhancing and protecting the natural resources and countryside management, empowering local communities and developing skills (Mehefin, 2001:39).

## **6.3 Assessment**

The RDP for Wales addresses three key priorities:

1. to create stronger agriculture and forestry sectors;
2. to improve the economic competitiveness of rural communities and area;
3. to maintain and protect the environment and rural heritage.

In Fig. 6.3 we have classified the planned RDP measures according to these priorities. Below we will briefly discuss these measures and assess whether the proposed measures contribute to rural development priorities .

Rural development priorities	Planned measures in RDP
1	a1, a2, a3, h1, i1, i2, i3, p1, s1
2	c1, g1
3	e1, f1, f2, n1, o1, t1, t2, t3

*Figure 6.3 Planned RDP measures according to the rural developments priorities in Wales*

### *Key priority 1*

In order to create stronger agriculture and forestry sectors, the following objectives are formulated:

- to broaden the economic base of rural Wales by developing the agri-food strategy and assessing and developing the potential for alternative crops, organic horticulture, energy crops, herbs etc;
- to help farming families to adapt, to take informed decisions on the future of family members, and to diversify sources of income;
- to complement other actions aimed at broadening the rural economy in appropriate circumstances.

These objectives are addressed by the following measures:

- investment in agricultural holdings;
- forestry (both on-farm and off-farm);
- diversification of agricultural activity;
- encouragement of tourist and craft activities.

The RDP gives the following specific impact indicators:

- the value added per person employed in agriculture is to grow at least as fast as - productivity in the economy as a whole;
- the extent of diversification into agriculturally-related activities to increase substantially, with income from diversified activities to increase by 50%;
- the area of woodlands brought into active management on farms to increase by 10%.

On the whole, just over 4% of the total financial means of the RDP are reserved for this key priority. Due to this moderate amount, it can be doubted whether the specific impact indicators will be achieved. Given the fact that the largest part of the reserved financial means are intended for forestry measures (2.5%) and the modest formulation of the impact indicator with regard to the increase in the area of woodland on farms, some optimism on the realisation of this impact indicator can be reflected here.

### *Key priority 2*

For the improvement of the economic competitiveness of rural communities and areas, the following objectives are formulated:

- to become more sustainable economically, with the emphasis on premium, branded products with an environmentally-positive image, and much greater value-added processing of primary produce in rural Wales;
- to improve innovation through the adoption of new business skills and environmentally sensitive agricultural best practice;
- to improve market links by promoting collaboration among producers and co-operation between producers and processors.

These objectives are addressed by the following measures:

- training;
- processing and marketing of agricultural products.

The RDP gives the following specific impact indicators:

- the number of jobs in the dairy and lamb & beef processing industries to increase by at least 5%;
- integrated training and advisory services, including a network of demonstration farms, to have been established and to have made a measurable impact on the level of business and IT skills and innovation.

In the RDP, about 3.5% of the total financial means are reserved for this key priority. The package of proposed measures contributes to the achievement of the specific impact indicators; however, the financial means are limited.

### *Key priority 3*

In order to maintain and protect the environment and rural heritage, the following objectives are formulated:

- to help land use in the region become more sustainable environmentally and ecologically;
- improving access to services, supporting community regeneration and promoting social inclusion in rural communities.

These objectives are addressed by the following measures:

- the agri-environment scheme Tir Gofal;
- the Less Favoured Areas scheme Tir Mynydd;
- support for basic services for the rural economy and population;
- support for renovation and development of villages and protection and conservation of the rural heritage;
- support for protection of the environment in connection with agriculture, forestry and landscape conservation as well as the improvement of animal welfare.

The RDP gives the following specific impact indicators:

- 20% of agricultural holdings in Wales to have entered the Tir Gofal and organic farming schemes;
- the area of agricultural land covered by an agri-environmental agreement under Tir Gofal and the Organic Farming Scheme to reach 300,000 hectares;
- the social sustainability of rural areas to be strengthened with the assistance of the Tir Mynydd scheme and activities relating to provision of basic services and village renovation and development.

Given the fact that over 90% of the financial means of the RDP is reserved for this priority, it can be said that this priority is the real priority of the RDP of Wales. This priority fits into the naturalist tradition prevailing in the UK.

#### **6.4 Concluding remarks**

Rural Wales has a tourist function for mainly British visitors. Its agriculture consists for a large part of grazing livestock farms, which are mainly located in LFA. In the scope of the European model for agriculture, Welsh farmers can be characterized as producers of nature and landscape. The main emphasis in the RDP for Wales is on enhancing this role of farmers, both by support through the LFA and the agri-environment schemes. Given the tourist function of Wales, one might have expected considerable support for agrotourism and other tourist activities in order to facilitate tourists' consumption of the produced landscapes by farmers. However, the RDP hardly provides such support. As such, the RDP reflects some imbalance, which could be explained by the presence of Objective 1 and 2 programmes directed at enhancing the general socio-economic potential of Wales.



## 7. Case study Emilia Romagna

### 7.1 Description of the case study region

#### *Function of the region*

Emilia Romagna is located south east of Milan and stretches from the Adriatic Sea to the Apennines. The river Po, originating in the Alps, forms the northern border of Emilia Romagna. Many other rivers originate in the Apennines. Nearly half of the region consists of plains, a quarter is hilly and another quarter is mountainous (CEC, 1993c:198). A large proportion of the region's population is concentrated along the old Roman 'Via Emilia', forming a highly urbanised 300 km long line of medium-sized towns, crossing the region from the north west to the south east, and including Piacenza, Parma, Reggio and Modena (Rural Europe, 2000). The region's capital Bologna (500,000 inh.) is also situated along this axis.

A process of industrialization started in the 1950s. An intense specialization in mechanical engineering, textiles, foodstuffs and ceramics sectors took place, which made the region one of Italy's foremost export areas (CEC, 1993c:198). The business structure comprises mainly of small and medium-sized enterprises. During the 1990s, non-agricultural employment growth in Emilia Romagna amounted to 0.6% per annum, which was well above the Italian average of 0.3%. In 1998, GDP/inhabitant in Emilia Romagna was about 60% above the national average. The mountainous areas are outside the radius of influence of the central axis of Via Emilia and have hardly benefited from these economic developments. Hence a gap consists between the plains and the mountainous areas. To date mountainous areas are faced with depopulation and it is only through tourism that the resources of these areas are now being exploited.

The function of the region can best be described as a place where people live and work on the one hand, and as a place for domestic and foreign tourists, especially in the mountainous parts of the region, on the other hand.



Figure 7.1 Map of the region  
 Source: CEC (1993c), *Portrait of the regions; Volume 3: Portugal, Spain, Italy and Greece; Luxembourg.*

### *Natural and cultural heritage*

Within Emilia Romagna three main ecological systems are recognisable: the valley of the River Po, the Adriatic coast and the Apennines. In order to preserve nature and its diversity, the regional administration of Emilia Romagna has set up a system of protected areas, consisting of 14 Parks and 12 Nature Reserves. Together, these protected areas cover 7% of the regional territory (Regione Emilia Romagna, 2002). Due to its long history, the towns and cities along the Via Emilia offer a wide range of cultural, artistic, musical and culinary heritage.

### *Agriculture*

Emilia Romagna is the second most important region in Italy as regards to the agri-food sector. Some of its food products are world famous like the Parmigiano Reggiano cheese, the ham of Parma, and wines like Lambrusco, Sangiovese and Colli Bolognese. After the second World War, technological developments resulted in a polarization of agriculture: intensive production systems in the lowlands and land abandonment in the hill and mountainous areas. In Emilia Romagna, the intensification of crops in the lowland areas have been paralleled by an intensification of livestock production, especially of pig farming in rather big production units (Bordin et al., 1998:243). These pigs are partly fed on whey from dairy production (Roest, 2000:57). Due to these developments, Emilia Romagna is characterised by three types of agriculture (RDP Emilia Romagna, 2000):

1. specialised intensive agriculture in the plain areas, which is very competitive and open to global markets;
2. agriculture focused on quality products;
3. extensive agriculture in the mountainous areas, where it plays an essential part in protecting the land from erosion and maintaining the landscape and integrates with other activities.

In 1999, over 6% of the regional labour force was employed in agriculture (Table 7.1). About 80% of the farms is involved in crop farming. On average, the farm size amounts to 10 hectares and yields per hectare are 1.5 ESU. However, due to the polarisation of agriculture in hill/mountain and plain areas, the distribution of real values around the average may be quite large.

### *Tourism*

The Adriatic Riviera is a famous tourist resort in Emilia Romagna. Over 50% of the region's hotels are located here. The Apennines attract many visitors who are fond of nature. Numerous spas offer a wide range of health-related facilities. Due to its long history, the towns and cities along the Via Emilia offer a wide range of cultural, artistic, musical and culinary heritage.

*Table 7.1 Some characteristics of the agricultural sector in Emilia Romagna*

Share agriculture in total employment, 1999 (%)	6.7
Growth agricultural employment, 1989-1999 (% p.a.)	-4.0
Share LFA in utilised agricultural area, 1997 (%)	31.5
Share of farm holders with other gainful activity, 1997 (%)	17.4
Share of part time farm holders, 1997 (%)	72.0
Utilised agricultural area per agricultural holding, 1997 (hectares)	10.0
Standard gross margins per agricultural holding, 1997 (European Size Units)	15.3
Standard gross margins per hectare utilised agricultural area, 1997 (European Size Units)	1.5
 Total number of farm holdings	 119,780
 Specification of EU farming types (% of total):	
Specialist field crops	41
Specialist permanent crops	24
Specialist vineyards	8
Specialist fruit and citrus fruit	11
Specialist grazing livestock	15
<i>of which:</i>	
- specialist dairying	6
- sheep, goats and other grazing livestock	7
Specialist granivores	1
Mixed cropping	11
Mixed crops-livestock	5

Source: Own calculations based on Eurostat, Luxembourg.

### *Other economic activities*

Alongside the region's traditional products such as foodstuffs, ceramics, clothing, mechanical engineering, several new areas of production have emerged, such as robotics, biomedicine graphic arts etc. (CEC, 1993c:202). The regional economy is more export-oriented than in other regions in Italy. Non-agricultural employment increased by 0.6% per annum in the period 1989-1999, which was well above the national average growth rate of 0.3%.

### *Environmental concerns*

A general point of environmental concern refers to the Po basin, which is home to 18 million people, 60% of Italy's industry, about half of its livestock and about 40% of its agricultural output. The proliferation of algae is one of the problems with the pollution of the Po water, which resulted in serious problems in the tourist industry in the Adriatic Riviera. Together with other Italian regions, Emilia Romagna tries to reduce environmental problems by demanding the use of water treatment installations, constructing modern sewage systems and creating nature reserves in the Po basin. (CEC, 1993c: 203).

Agriculture produces both positive and negative externalities on the environment (Bordin et al., 1998:241). The positive externalities are mainly evident in upland areas, and include, for example, landscape quality, due to attractive land uses such as vineyards, orchards, citrus groves, pastures, meadows, trees and hedgerows; and environmental conservation due to low intensity pastures and meadows and forests of mixed age. However, due to land abandonment in the hill and mountainous areas, degradation of rural landscapes emerges with unpredictable environmental outcomes. The negative externalities are mainly evident in the lowlands, where intensification is most acute. These include pollution of groundwater and surface water from nutrients and pesticides, and the disappearance of traditional farming patterns and their replacement with new ones involving loss of landscape features and negative environmental impacts.

### *Development priorities*

The Rural Development Plan Emilia Romagna 2000-2006 addresses the following priorities:

1. *support for the modernisation and diversification of the productive structure*

This priority includes investments in agricultural holdings and processing enterprises, as well as the setting-up of young farmers to encourage generation renewal, and training for farmers and technicians.

2. *development of agricultural activities compatible with the environment*

This priority's objective is to support agri-environmental measures (in such a way that intensive agriculture is always respecting of the environment), and compensatory payments so that these aims are upheld in more marginal areas. The priority also targets forestry measures and measures for the protection of the environment for agriculture, forestry and management of natural spaces.

### 3. *integrated local development*

This priority aims at diversification of economic activities (rural tourism), the marketing of quality products, and support for rural infrastructures (in particular the management of water resources for agriculture).

## 7.2 Rural development policy and related measures

### 7.2.1 Rural Development Plan

An overview of the proposed measures in the RPD for Emilia Romagna is presented in Fig. 7.2.

RDR measure	no	Planned measures in RDR
1 art. 4-7		<b>(a) Investment in agricultural holdings</b>
	a1	Support is targeted at the following sectors: crops grown in the open (cereals, oleaginous products and industrial crops); seed crops; horticultural crops grown in the open; fruit; protected crops (floriculture, nurseries); wine growing; forage; beef and veal; pig meat; poultry meat; minor livestock farming. For each sector the admitted and excluded investments are indicated within the specific limitations set down by CAP limitations relating to vulnerable sectors. Each investment plan must comply with minimum standards regarding the environment, hygiene and animal welfare.
2 art. 8		<b>(b) Setting-up of young farmers</b>
	b1	Premium for young farmers with an age limit of 40 years; professional knowledge (agricultural education or professional experience of two to three years accompanied by training) and compliance with the minimum standards regarding the environment, hygiene and animal welfare and the assurance of economic viability are required.
3 art. 9		<b>(c) Training</b>
	c1	Eligible schemes are courses and seminars, as well as individual training (courses already available on the market in which farm operators show an interest).
5 art.13-21		<b>(e) Less favoured areas and areas with environmental restrictions</b>
	e1	Support is given to livestock farming (bovine, equine, sheep and goat races). Farmers must commit themselves to good farming practice and uphold livestock farming for the subsequent five years, while maintaining a livestock density of less than 2 LU/ha. Farm size must exceed 3 hectares. The code of good practice describes farming practices complying with the principal Community, national and regional rules to be complied with as regards to the environment. Regional rules refer to procedures for the management of livestock farming waste (procedures for spraying, periods during which spraying is prohibited, the storage capacity required for holdings). Compliance with good farming practice is subject to the verification of documents (yearly documents or operations register, and documents on the management of livestock farming waste) as well as an on-the-spot check.
6 art.22-24		<b>(f) Agri-environment</b>
	fl	This measure comprises 11 schemes. Some schemes target at the region's entire area; others target only at plain and/or hill and/or mountain areas. Three large cate-

	<p>gories for priority areas are designated: protection of the landscape, protection of natural resources and hydrological protection. Duration of the commitments is in general 5 years, except for Scheme 9 (10 years) and Scheme 10 (20 years). The schemes are as follows:</p> <p>1. <i>integrated agriculture</i>  Commitments: introduction or maintenance of integrated production in the whole agricultural area (four-year rotation of at least three different types of crop; use of pest control products and herbicides in compliance with the principles of the general framework drawn up according to IOBC/WPRS guidelines; reduction in fertilisation by at least 25% in line with good farming practice; irrigation using the simplified water balance method; soil management so as to reduce the risk of erosion; obligation to regulate machines for the treatment of pest control products).</p> <p>2. <i>organic agriculture</i>  Commitments: compliance with Council Regulation (EEC) No 2092/91 for the entire area and/or for livestock farming.</p> <p>3. <i>supplementary crops for vegetation cover</i>  Commitments: to retain soil cover up to the month of February (by seeding in September a number of grasses or the introduction into the soil of green manure), all fertilisation, pest control treatment and use of chemical herbicide prohibited, as well as grazing.</p> <p>4. <i>increase in organic matter in the soil</i>  This measure is applicable to holdings where the land has an organic matter content less than 1.5% and which at the same time adhere to Scheme 1 and/or Scheme 2. A compost gift of up to a maximum of 5t of dry matter per hectare per year can be made. Commitments: to conserve and increase organic matter using the methods detailed in the contract document.</p> <p>5. <i>permanent green cover for fruit crops and vines</i>  This measure is applicable to fruit cultures and vines covered by a commitment under Schemes 1 and 2. Commitments: to keep a permanent vegetation cover, in both rows and the spaces between rows; to refrain from using chemical herbicide.</p> <p>6. <i>extensification of bovine animal farming</i>  Conditions of eligibility: holdings with a maximum rate of 2 LU/ha (2.5 if a manure management plan exists) for vulnerable areas or 3.3 LU/ha outside these areas. Commitments: to increase forage area by at least 10% over 5 years, to reduce the LU/ha rate by at least 10%, to use the forage produced on the land under commitment for livestock food, to recover and conserve the water disposal network, and to apply the standards on pest control set out in Scheme 1.</p> <p>7. <i>environmental planning</i>  Conditions of eligibility: this scheme is for enterprises in receipt of ISO 14 000 or EMAS certification and adhering to Schemes 1-6 and 8.</p> <p>8. <i>conversion of arable land to pasture or extensive grazing land and maintenance of extensive systems</i>  Commitments: to maintain the good condition of the waste network, to mow at least one time a year, to refrain from using pest control or herbicide products, to only carry out chemical fertilisation when the land is being used for pasture/grazing and using less than 50 N/ha, and not exceed the rate of 1.4 LU/ha for grazing land.</p> <p>9. <i>rehabilitation and/or conservation of natural and semi-natural spaces and of features of the agricultural landscape</i>  Commitments: to rehabilitate/conservate natural features and features of the agricultural landscape (hedges, ponds, marshes, etc.) for an area of at least 5% of the agricultural area; to maintain the buffer zones in which any use of inputs is prohibited and vegetation control can be carried out (by hand or mechanically) solely within the indicated period.</p> <p>10. <i>environmental set aside of arable land</i></p>
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		<p>This scheme aims to create habitats for wild fauna and flora, particularly wet areas and maquis areas; ecological corridors; habitats for the protection of hydro-geological systems. Commitments: prohibition of all forms of fertilisation, of all use of pest control and herbicide products and of grazing; abstention from all productive use; carrying out mowing and/or cutting in the indicated periods and in accordance with a detailed contract document.</p> <p><i>11. protection of genetic biodiversity</i></p> <p>This scheme targets at the conservation of a) domestic animal races threatened with extinction (several bovine, ovine, equine, ass and porcine races) and b) crops threatened with genetic erosion (several cultivars of pear, apple and vine). Commitments for a): to maintain the LU, to carry out pure breeding, to record animals in registers; for b): to conserve the indicated varieties, to cultivate crops using the pest control methods set out in Scheme 1 and the agronomic practices of integrated production with regard to the management and working of the soil.</p>
7 art.25-28		<b>(g) Improving processing and marketing of agricultural products</b>
	g1	<p>Admissible investment is aimed at:</p> <ul style="list-style-type: none"> <li>- the creation, restructuring and modernisation of equipment;</li> <li>- protection of the environment, including waste treatment, by-products and collateral products;</li> <li>- the introduction of new technology for the rationalisation of the production cycle;</li> <li>- the establishment of quality certification systems.</li> </ul> <p>Investment at the level of retail trade, investment in the marketing or processing of products from third countries, and the purchase of land and tractors are excluded.</p> <p>Investments can be made in the following agricultural production sectors: fruit and vegetables; milk; meat; forage; wine; cereals; seed crops; fresh eggs; olive oil; honey; hemp; niche products. There are specific exclusions and limitations for each sector, for example,</p> <ul style="list-style-type: none"> <li>- no new abattoirs for meat sectors;</li> <li>- cereals: investment solely targets organic products and quality-controlled products;</li> <li>- wine: only registered designation of origin (DOC), registered and guaranteed designation of origin (DOCG), typical geographical indication (IGT) and qwpsr wines are targeted;</li> <li>- tomatoes: investment is admitted according to quotas and in proportion to these quotas.</li> </ul>
8 art.29-32		<b>(h) Afforestation of agricultural land</b>
	h1	<p>The measure comprises 4 schemes:</p> <ol style="list-style-type: none"> <li>1. permanent forests (in hill and plain areas);</li> <li>2. productive afforestation, consisting of three alternatives: specialised productive afforestation; poplars; fast-growing species for biomass (in plain areas);</li> <li>3. afforestation for environmental purposes: the prevention of erosion and hydro-geological risks (in hill areas);</li> <li>4. afforestation for environmental purposes: the protection of biodiversity (in plain areas).</li> </ol>
		<b>(i) Other forestry measures</b>
	ii	<p>The measure is made up of 5 schemes:</p> <ol style="list-style-type: none"> <li>1. the afforestation of non-agricultural land;</li> <li>2. the improvement of forests (restoring agricultural potential damaged by natural disasters and the improvement of degraded areas for ecological purposes)</li> <li>3. investment in forests aimed at improving their ecological, economic or so-</li> </ol>

		<p>cial value;</p> <p>4. support for forestry mechanisation;</p> <p>5. support for associations of forest holders.</p>
		<b>(m) Marketing of quality agricultural products</b>
9 art.33	m1	<p>This measure is aimed at the development of the market in quality products (identified according to Community legislation) by two schemes:</p> <p>1. the establishment of outlets for the direct sale of products from farmers' co-operatives or associations;</p> <p>2. the creation of new marketing channels (market research, the creation and revision of contract documents, certification programmes and quality control).</p>
		<b>(o) Renovation and development of villages and protection and conservation of the rural heritage</b>
	o1	This measure is aimed at the restoration of rural buildings for collective, tourist, cultural and service activities.
		<b>(p) Diversification of agricultural activities and activities close to agriculture to provide multiple activities or alternative incomes</b>
	p1	<p>This measure is aimed at:</p> <p>1. the creation of tourist farm tours, and gastronomic and educational tours;</p> <p>2. the creation of 'educational farms' (investment for the establishment of completed premises and areas to demonstrate farm and rural life activities to students);</p> <p>3. investment in rural tourism and craft activities.</p>
		<b>(q) Agricultural water resources management</b>
	q1	This scheme aims at the establishment of storage tanks to optimise the use of water resources and operations for the distribution of water to agricultural holdings.
		<b>(r) Development and improvement of infrastructure connected with the development of agriculture</b>
	r1	<p>This scheme targets at:</p> <p>1. the improvement of the drinking water supply to rural areas (investment in the modernisation and improvement of rural aqua ducts, as well as the rationalisation of the availability of water to livestock including drinking troughs), excluding irrigation equipment;</p> <p>2. the improvement of public rural roads;</p> <p>3. the use of renewable sources of energy (small hydroelectric power stations, cogeneration stations).</p>
		<b>(t) Protection of the environment in connection with agriculture, forestry and landscape conservation as well as the improvement of animal welfare</b>
	t1	Support for the development of instruments of new techniques for sustainable forest management, for example, the setting-up of a database linked to the region's GIS system, which includes an inventory of forestry schemes, interventions concerning vegetation stabilisation, areas of forestry interest, etc.

Figure 7.2 Overview of the measures in the RPD of Emilia Romagna



Table 7.2 Total public expenditure, 2000-2006 (mln. euro)

art. 1257/99	Measures	Total	in % of total
4-7	a Investment in agricultural holdings	169.65	20
8	b Setting up of young farmers	75.64	9
9	c Training	7.04	1
10-12	d Early retirement		
13-21	e Less favoured areas and areas with environmental restrictions	18.20	2
22-24	f Agri-environment	354.72	42
25-28	g Improving processing and marketing of agricultural products	70.41	8
29-32	h Afforestation of agricultural land	35.52	4
29-32	i Other forestry measures	17.98	2
	Article 29-32, total	53.50	6
33	m Marketing of quality agricultural products	15.80	2
33	n Basic services for the rural economy and population		
33	o Renovation and development of villages and protection and conservation of the rural heritage	12.66	1
33	p Diversification of agricultural activities and activities close to agriculture to provide multiple activities or alternative incomes	13.62	2
33	q Agricultural water resources management	11.91	1
33	r Development and improvement of infrastructure connected with the development of agriculture	24.94	3
33	t Protection of the environment in connection with agriculture, forestry and landscape conservation as well as the improvement of animal welfare	1.23	0
	Article 33, total	64.36	8
	Other:		
	- Evaluations	3.86	0
	- Former accompanying measures	19.05	2
	TOTAL a)	852.23	100

a) EU contribution is about 45%.

Source: Own calculations based on RDP of Emilia Romagna, Annex.

In order to get some insight in the priorities in the long list of proposed measures in the RDP, it is useful to examine the distribution of expenditure among the various measures. From Table 7.2 it can easily be seen that the emphasis in this RDP is on agri-environmental measures, to which 42% of the budget is dedicated. Investments in agricultural holdings is the second most important item with a budget share of 20%. Finally, 8-9% of the budget is reserved for the support for young farmers, the improvement of processing and marketing of agricultural products, and article 33 respectively.

## 7.2.2 Other rural development policy measures

### Objective 2

A part of the region is eligible for Objective 2 for the period 2000-2006. This area includes 130 municipalities (Objective 2 Programme Emilia Romagna, 2001). These municipalities

suffer from declining birth rates and out migration. The general objective of the Objective 2 plan is to support businesses particularly with regard to innovation and internal organisation. In order to attain this objective, support is given to assist the transition from the former region's model of development based on the primary industry to the more flexible commercial sectors. Support is also targeted at public initiatives to enhance the exploitation of the endogenous potential at the local level. The total budget amounts to € 245.4 million, of which 50% is cofinanced by EU Structural Funds.

### *LEADER+*

The plan for LEADER+ programme in Emilia Romagna (2000-2006) was approved by the EU Commission in November 2001. Regional authorities will select five Local Action Groups to implement the programme. The total funds available for LEADER+ during 2000-2006 amount to € 28.7 million, of which 34% is cofinanced by the EU Structural Funds (LEADER+, 2002).

### **7.3 Assessment**

The RDP for Emilia Romagna addresses three key priorities:

1. to support the modernisation and diversification of the productive structure;
2. to develop agricultural activities compatible with the environment;
3. to support the sustainable and integrated development of rural areas.

In Fig. 7.3 we have classified the planned RDP measures according to these priorities. Below we will briefly discuss these measures and assess whether the proposed measures contribute to rural development priorities.

Rural development priorities	Planned measures in RDP
1	a1, b1, c1, g1 (38% of the budget)
2	e1, f1, h1, i1, t1 (50% of the budget)
3	m1, o1, p1, q1, r1 (9% of the budget)

*Figure 7.3 Planned RDP measures according to the rural developments priorities in Emilia Romagna*

#### *Key priority 1*

In order to support the modernisation and diversification of the productive structure, the following measures are proposed:

- investment in agricultural holdings;
- setting up of young farmers;
- training;
- improving processing and marketing of agricultural products.

The RDP gives the following specific impact indicators:

- 5,400 financed projects of investment in agricultural holdings for an average of €77,000;

- the setting-up of 3,500 young farmers;
- 500 individuals in receipt of training;
- 130 projects financed for an average of €130,000 under the measure for processing and marketing.

On the whole, 38% of the total financial means of the RDP are reserved for this key priority. Given the specific impact indicators above, about 9,400 farmers are aimed at, which is roughly equal to 8% of all farmers in Emilia Romagna. In the period 1994-1999, investments in agricultural holdings in Italy resulted in higher net incomes for farmers (Gatto and Monteleone, 2001). For improving processing and marketing of agricultural products a considerable amount of money is reserved as well. So some optimism about the contribution the RDP makes to achieving this key priority may be reflected here.

### *Key priority 2*

For the development of agricultural activities compatible with the environment the following measures are proposed:

- agri-environment measures;
- compensation for less favoured areas and areas with environmental restrictions;
- afforestation of agricultural land;
- other forestry measures;
- protection of the environment in connection with agriculture, forestry and landscape conservation as well as the improvement of animal welfare.

The RDP gives the following specific impact indicators:

- 1,300 holdings occupying a total of 26,000 ha receiving compensation;
- 5,000 holdings occupying a total of 100,000 ha covered by agri-environmental measures (estimates are also given for each of the schemes yet to be activated);
- afforestation of 450 ha of agricultural land and 350 ha of non-agricultural land.

In the RDP, about 50% of the total financial means are reserved for this key priority, which demonstrates its importance. However, given the specific impact indicators, only 1% of the farmers are aimed at to benefit from the LFA compensations and only 4% of the farmers are targeted at in the agri-environmental measures. These percentages are rather moderate and hence, the contribution of the RDP to achieving this key priority seems a rather minor one.

### *Key priority 3*

In order to support the sustainable and integrated development of rural areas, the following measures are proposed:

- marketing of quality agricultural products;
- basic services for the rural economy and population;
- renovation and development of villages and protection and conservation of the rural heritage;

- diversification of agricultural activities and activities close to agriculture to provide multiple activities or alternative incomes;
- agricultural water resources management;
- development and improvement of infrastructure connected with the development of agriculture.

The RDP gives the following specific impact indicators:

- around 900 projects financed under the priority for integrated local development.

Only 9% of the financial means of the RDP is reserved for this priority. On the whole, the proposed measures are mainly involved with the marketing and processing of agricultural products, village renovation, rural tourism and water management, and will contribute in a moderate extent to sustainable and integrated development of rural areas in Emilia Romagna.

#### **7.4 Concluding remarks**

Emilia Romagna is located south east of Milan and stretches from the Adriatic Sea to the Apennines. A large proportion of the region's population is concentrated along the old Roman 'Via Emilia', forming a highly urbanised 300 km long line of medium-sized towns, crossing the region from the north west to the south east. The function of the region can best be described as a place where people live and work on the one hand, and as a place for domestic and foreign tourists, especially in the mountainous parts of the region, on the other hand. The pollution of the Po basin is a major environmental concern. In the plains, intensive livestock production results in serious environmental pollution. On the other hand, in the hills and mountains agriculture plays a main function in protecting the countryside. About 50% of the total financial means of the RDP are reserved for the key priority of the development of agricultural activities compatible with the natural environment. However, according to the specified impact indicators, only a small percentage of all farmers in Emilia Romagna are targeted at. Hence, the contribution of the RDP to achieving this key priority seems to be rather small. On the other hand, about 40% of the financial means of the RDP are reserved for modernisation and diversification of the agricultural structure of production. According to the impact indicators, about 8% of all farmers can be supported with this budget. This gives rise to some optimism about the contribution of the RDP to achieving this particular key priority.

## 8. Comparative analysis of the four case studies in the intermediate rural regions

### 8.1 Introduction

In Chapters 4-7, we have analysed the RDPs in the Northern Netherlands, Lower Saxony, Wales and Emilia Romagna. In this chapter, a comparative analysis is made of these four intermediate rural regions. In Section 8.2, the focus is on socio-economic characteristics in the four case study regions. In Section 8.3, the RDPs in the four regions are compared from different viewpoints: rural development priorities, distribution of expenditure over the different rural development measures, and the contents of each rural development measure in the RDP. In the last section, we make some concluding remarks.

### 8.2 Socio-economic characteristics of the four regions

In the description of the socio-economic characteristics in the four case study regions in the previous chapters, we used six main headings: 1. function of the region; 2. natural and cultural heritage; 3. agriculture; 4. tourism; 5. other economic activities; and 6. environmental concerns. In this section, we use these main headings as starting point in the comparative analysis of the socio-economic characteristics.

#### *Function of the region*

In the four regions, a large proportion of the people live and work in the urbanised parts. In the rural parts the population is more scattered and a substantial share of its labour force is employed in the more urbanised parts (Fig. 8.1). All four regions are endowed with a heterogeneous landscape with many attractive areas for recreation and tourism. The tourist industry is important in these intermediate rural regions. Tourists are coming both from urban regions (in the respective country) as well as from abroad.

Northern Netherlands	<ul style="list-style-type: none"> <li>- The region can be divided in the Skin (areas with sea clay and the peat district), the Centre (plateau and lakes) and the Waddensea;</li> <li>- A large share of the people lives and works in the cities;</li> <li>- There are many attractive areas for recreation and tourism. Tourists are mainly coming from urbanised Dutch regions and Germany.</li> </ul>
Lower Saxony	<ul style="list-style-type: none"> <li>- Lower Saxony is a large and heterogeneous federal state in Germany, with mountains, hills, plains and a coastal zone;</li> <li>- In the industrialised conurbations, people work and live. The rural areas are sparsely populated and border to the former DDR and the Netherlands;</li> <li>- There are many attractive areas for tourism and recreation, especially in the coastal zone, the hills and mountains.</li> </ul>

Wales	<ul style="list-style-type: none"> <li>- Wales is a mountainous region with beautiful landscapes. The rural part of the region is located in the west, mid and north. South Wales is an urban area with modernised industry and main town ports;</li> <li>- The function of Wales can be characterised as a tourist function. Visitors are coming mainly from other parts of the UK and to a lesser extent from abroad.</li> </ul>
Emilia Romagna	<ul style="list-style-type: none"> <li>- About 50% of the surface of Emilia Romagna consists of plains. The other part can be equally divided between hills and mountains;</li> <li>- In the urbanised part of Emilia Romagna people live and work, whereas the rural parts can be said to have a tourist function. Visitors to the mountains, hills, coast and cities are mainly coming from other (more urbanised) areas in Italy and from abroad.</li> </ul>

Figure 8.1 Function of the four regions

### *Natural and cultural heritage*

All four regions include beautiful landscapes with a high degree of diversity (Fig. 8.2). In Wales, Lower Saxony and the Northern Netherlands a considerable share of the surface consists of areas with high nature values which are legally protected. However, the degree of this protection differs largely within and between regions and hence, it is difficult to indicate the impact of this protection on economic activities. In Emilia Romagna the protected area is rather small. Most regions are endowed with a rich cultural heritage.

Northern Netherlands	<ul style="list-style-type: none"> <li>- In Northern Netherlands there is a great diversification in landscapes. A large share of the surface consists of open areas (sea clay districts, the peat districts, the lakes and the Waddensea). There are also many areas with nature and forests, especially on the Plateau;</li> <li>- A large part (50%) of Northern Netherlands is designated as protected area for nature, birds, plants, water and cultural landscapes;</li> <li>- In about 25% of the area in Northern Netherlands, especially in the north, the maintenance of cultural heritage (landscapes, buildings) is enhanced by the so-called Belvedere measures.</li> </ul>
Lower Saxony	<ul style="list-style-type: none"> <li>- Lower Saxony is strongly marked by rural settlement structures with a great variety in landscape types. There are large open areas, forests, hills and mountains. The surface of the relatively young forests is increasing;</li> <li>- The protected areas in Lower Saxony cover approximately 43% of the total surface.</li> </ul>
Wales	<ul style="list-style-type: none"> <li>- Welsh rural areas are endowed with a rich natural environment: it has three national parks, five areas of outstanding natural beauty, 900 sites of special scientific interest and 62 natural nature reserves. Together these areas cover almost half of the land area;</li> <li>- In the scope of EU Birds and Habitat Directives a coherent ecological network of protected areas will be created (Natura 2000);</li> <li>- The Welsh language is an important aspect of the Welsh cultural heritage, which reinforces the Welsh identity.</li> </ul>

Emilia Romagna	<ul style="list-style-type: none"> <li>- Within the region there are three main ecological systems: the valley of the river Po, the Adriatic coast and the Apennines;</li> <li>- About 7% of the regional territory consists of protected areas to preserve nature and its diversity;</li> <li>- The old towns along the Via Emilia offer a wide range of cultural, artistic, musical and culinary heritage.</li> </ul>
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Figure 8.2 Natural and cultural heritage in the four regions

### Agriculture

All regions show a high diversity in their agriculture structures. In the plain areas in Emilia Romagna, Northern Netherlands and Lower Saxony there is large-scale (land-bounded) farming. In Lower Saxony and Emilia Romagna, areas with intensive livestock farming suffer from environmental pollution. In the mountains and hills in Lower Saxony and Emilia Romagna farms are rather small on average and the farming system is extensive. The share of agricultural area eligible for less favoured areas rather varies: it ranges from 80% in Wales, 57% in Lower Saxony, 32% in Emilia Romagna to hardly nothing in Northern Netherlands (Fig. 8.3).

Northern Netherlands	<ul style="list-style-type: none"> <li>- In the Northern Netherlands a large part of agriculture consists of dairy and arable farming. A small group is specialised in horticulture or in intensive livestock farming;</li> <li>- Especially in the Skill, the emphasis is on large-scale farming. On the central plateau and Wadden Islands, many farmers are involved in multifunctional agriculture;</li> <li>- There is an influx of dairy farmers in the clay and peat districts from other parts in the Netherlands. In many communities the growth of intensive livestock farming is restricted by spatial planning measures.</li> <li>- About 4% of utilised agricultural area is designated as Less Favoured Areas (LFA).</li> </ul>
Lower Saxony	<ul style="list-style-type: none"> <li>- A quarter of the farms is specialised in arable farming (especially in the southern and eastern parts), over 40% in grazing livestock (in the northern and western parts) and another quarter of farms has a mixed production system In the western part of the region, intensive livestock farming is concentrated;</li> <li>- About 57% of utilised agricultural area is designated as Less Favoured Areas (LFA).</li> </ul>
Wales	<ul style="list-style-type: none"> <li>- There is mainly specialist grazing livestock farming (90%), especially sheep farming. The average farm size in hectares is high, with a low intensity;</li> <li>- About 80% of utilised agricultural area is designated as Less Favoured Areas (LFA).</li> </ul>
Emilia Romagna	<ul style="list-style-type: none"> <li>- Within the region three types of agriculture can be distinguished: <ol style="list-style-type: none"> <li>1. Specialised intensive agriculture in the plain areas, competitive and open to global markets;</li> <li>2. Extensive farming in the hill and mountainous areas, where the emphasis is on multifunctionality;</li> </ol> </li> <li>- Agriculture focusing on quality products.</li> <li>- About 80% of farms is involved in crop farming;</li> <li>- About 32% of utilised agricultural area is designated as Less Favoured Areas (LFA).</li> </ul>

Figure 8.3 Agriculture in the four regions

## Tourism

Tourism is an increasing economic activity in the four intermediate rural regions. All regions have beautiful and highly diversified landscapes which are attractive for tourists (Fig. 8.4). Tourists are coming from the more urbanised regions in the country, but from other countries as well, especially in Northern Netherlands and Emilia Romagna. In Northern Netherlands and in the mountains of Emilia Romagna agrotourism is on the rise.

Northern Netherlands	<ul style="list-style-type: none"> <li>- The importance of the tourist industry in Northern Netherlands is rather strong and rising. The diversity of the landscape is attractive for tourists;</li> <li>- In many areas recreation in combination with agriculture and nature offers income opportunities for farmers;</li> <li>- Tourists are mainly coming from urban regions in the Netherlands and from Germany.</li> </ul>
Lower Saxony	<ul style="list-style-type: none"> <li>- Lower Saxony has many attractive areas for tourists, such as a coastal zone (water tourism), hills and mountains (Harz) and other rural areas with attractive landscapes;</li> <li>- The growth of rural tourism partly compensates the traditionally high seasonal unemployment;</li> <li>- Tourists are coming from other German regions (urban regions and former DDR) and from abroad.</li> </ul>
Wales	<ul style="list-style-type: none"> <li>- The varied, natural and attractive landscapes enhance the tourist industry in rural areas. However, tourist activities in Wales are mainly seasonal, too dependent on internal markets, provide relatively low paid work for the rural workforce and are concentrated on markets that are either stagnating or declining (long-term stay and business tourism for instance);</li> <li>- Despite these difficulties, rural tourism has been identified as a potential growth sector for the region's economy. The share of tourism in GDP amounts to about 5%.</li> </ul>
Emilia Romagna	<ul style="list-style-type: none"> <li>- ER has a strong and very diversified tourist market. The Adriatic Riviera is a famous tourist resort for water recreation, the Apennines have an attractive landscape with many health related facilities, and the cities along the Via Emilia offer a wide range of cultural, artistic, musical and culinary heritage;</li> <li>- Tourists are coming from Italy and many other countries.</li> </ul>

Figure 8.4 Tourism in the four regions

## Other economic activities

In all four regions most people are working in the services sector. The continuous loss of employment in agriculture has been compensated by other economic sectors (Fig. 8.5). Especially in Lower Saxony the national reunification process and enlargement of the EU offers new prospects for an open economy.



Northern Netherlands	- The city of Groningen is the main economic centre in Northern Netherlands, in which much services employment is concentrated.
Lower Saxony	<ul style="list-style-type: none"> <li>- The City States of Hamburg and Bremen play a key role in the region's economy. Many of Lower Saxony's residents work in these two big cities. The city of Hanover plays also an important role;</li> <li>- The economic structure of Lower Saxony is rather unbalanced and is dominated by the car industry, which, together with rubber, accounts for one quarter of secondary jobs. The region's industrial activity owes much to public investment (steel works, Volkswagen plants). The substantial weight of the public sector in Lower Saxony was partly due to the very heavy military presence, a situation justified by its long border with the former Iron Curtain. Since its dismantling in 1990, the reduction in military personnel has had serious economic consequences on some of the towns where the armed forces are stationed;</li> <li>- Due to the reunification of Eastern and Western Germany, the region has moved from the edge to the centre of Germany and Europe. The flow of trade between East and West has rapidly expanded, and the European Union's enlargement eastward is opening up major prospects in the medium and long term.</li> </ul>
Wales	- On the whole, during the last two decades employment loss in the agricultural sector was compensated by employment growth in the other economic sectors. The service sector in rural Wales employs about seven out of every ten employees, due to public investment and policy intervention.
Emilia Romagna	<ul style="list-style-type: none"> <li>- The regional economy is more export-oriented than other regions in Italy. Non-agricultural employment increased by 0.6% per annum in the period 1989-1999, which was well above the national average growth rate;</li> <li>- Alongside the region's traditional products such as foodstuffs, ceramics, clothing, mechanical engineering, several new areas of production have emerged, such a robotics, biomedicine graphic arts etc.</li> </ul>

Figure 8.5 Other economic activities in the four regions

### *Environmental concerns*

In most of the regions the pressure on the environment is increasing. Especially agriculture, heavy industry and transport give rise to environmental concerns (Fig. 8.6). Pollution and other environmental problems may have a negative impact on the tourist industry. In all four regions, policy measures have been introduced to reduce the environmental pollution and to maintain the quality of the natural environment and the landscape.

Northern Netherlands	<ul style="list-style-type: none"> <li>- The environmental pressure from agriculture is rather moderate. In the region, there is relatively little heavy industry;</li> <li>- In some areas fresh water reservoirs are sensitive for environmental pollution, in other areas there are erosion and desiccation problems. In a number of areas the salt concentration in drinking water is too high.</li> </ul>
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Lower Saxony	<ul style="list-style-type: none"> <li>- In the western part of the region there are environmental problems (relatively high emissions of ammonia and nitrates) due to a high concentration of intensive livestock farming;</li> <li>- The region has implemented severe restrictions on the use of animal fertiliser and encourages good agricultural practice;</li> <li>- The condition of a large proportion of the forests is worrying;</li> <li>- The region suffers from a loss of semi-natural and extensively used cultural landscape biotopes.</li> </ul>
Wales	<ul style="list-style-type: none"> <li>- The change in traditional agricultural practices is one of the greatest threats to the Welsh countryside: shifts from cattle to sheep and the decline in arable production have large consequences on landscape diversity as well as on habitats and species. Moreover, the decline in the agricultural labour force makes it increasingly difficult to maintain traditional field boundaries;</li> <li>- Environmental pressure is also exerted by tourism, non-agricultural developments and transport.</li> </ul>
Emilia Romagna	<ul style="list-style-type: none"> <li>- An environmental concern refers to the Po basin, which is home to 18 million people, 60% of Italy's industry, about half of its livestock and about 40% of its agricultural output. The proliferation of algae is one of the problems with the pollution of the Po water, which resulted in serious problems in the tourist industry in the Adriatic Riviera;</li> <li>- Agriculture produces both positive and negative externalities on the environment. The positive externalities are mainly evident in upland areas, and include, for example, landscape quality and environmental conservation due to low intensity pastures and meadows. The negative externalities are mainly evident in the lowlands: water pollution and the loss of traditional farming patterns.</li> </ul>

Figure 8.6 Environmental concerns in the four regions

### 8.3 The Rural Development Plans in the four regions

In this section we compare the RDPs of the four case study regions from different viewpoints. First, we focus on the development priorities in the four RDPs and the distribution of expenditure over these priorities. Second, we analyse the distribution of expenditure over the different measures (a)-(v) in the four RDPs. Finally, we discuss the contents of each measure (a)-(v) in the four RDPs.

#### *Development priorities in the four RDPs*

The priorities of the second pillar of the CAP, as announced in Agenda 2000, are (EC, 1999:1):

- strengthening the agricultural and forestry sectors;
- improving the competitiveness of rural areas;
- preserving the environment and rural heritage.

Broadly speaking, the key priorities for action in the RDPs in Lower Saxony, Wales and Emilia Romagna coincide with these priorities (Table 8.7). For the Northern Netherlands, the question is somewhat complicated: it has no RPD of its own, but it is part of the RPD for the Netherlands as a whole. The RPD for the Netherlands distinguishes 6 devel-

opment priorities, which slightly differ from the development priorities defined for the Northern Netherlands (see Fig. 4.5). However, it is quite easy to convert the rural development priorities of the Northern Netherlands and those of the Dutch RDP into the three main priorities distinguished in the RPDs for the other three regions.

On the whole, it can be said that these priorities mainly address the socio-economic issues with regard to inadequacies in the structure of the agricultural sector, the degradation of environment and natural heritage, and strengthening of rural tourism. The priorities are hardly focused on other economic sectors, for example, industries and services, in which the major part of the rural labour force is employed.

Priority	corresponding with key priority in RDPs of			
	NN *)	LS	Wales	ER
Strengthening the agricultural and forestry sectors	1	1, 3	1	1
Preserving the environment and rural heritage	1, 2, 3	3	3	2
Improving the competitiveness of rural communities and areas	4, 5, 6	2	2	3

Figure 8.7 Priorities of the four RDPs

\*) Numbers refer to the development priorities in the RDP of Netherlands.

#### *Distribution of expenditures over priorities*

In order to get insight in the distribution of expenditure of each RDP over these priorities, we have grouped the expenditures for the RDP measures a-v according to these priorities in Table 8.1. This demonstrates that there is a marked emphasis in the expenditure in all RPDs is on preserving the environment and rural heritage. In Wales, this is an absolute top priority, absorbing 92% of the financial means. This emphasis in the RDP of Wales may partly be explained by the fact that parts of Wales are classified as Objective 1 area. Within the scope of Objective 1, rural development priorities can also be aimed at. In the three other regions, and especially in Lower Saxony and Emilia Romagna, a considerable part of the money is also reserved for the priorities of strengthening the agricultural and forestry sectors and improving the competitiveness of rural communities.

Table 8.1 *Distribution of expenditure of each RDP over these priorities (%)*

Priority	Distribution of expenditure in %			
	NN *)	LS	Wales	ER
1.Strengthening the agricultural and forestry sectors	14 (measures: a, c, g, h, i, m)	24 (measures: a, c, g, h, i, m)	4 (measures: a, h, i, p, s)	44 (measures: a, b, c, g, h, i)
2.Preserving the environment and rural heritage	72 (measures: e, f, k, q, t)	51 (measures: e, f, k, t, u)	92 (measures: e, f, n, o, t)	46 (measures: e, f, t)
3. Improving the competitiveness of rural communities and areas	13 (measures: n, o, p, r, s)	24 (measures: n, o, r, s)	4 (measures: c, g)	9 (measures: m, o, p, q, r)

### *Expenditure for the separate measures of the RDPs*

The share of each measure in total expenditure of the four RDPs is presented in Table 8.2. Investments in agricultural holdings (article 4-7) are relatively important in Lower Saxony and Emilia Romagna, where it has a share of respectively 15 and 20% in total expenditure. Support for young farmers (article 8) is only applied in Emilia Romagna, where this measure has a share of nearly 10% in total expenditure. Expenditure for training (article 9) is limited, with a share of 1% or less in each region. Support for early retirement (article 10-12) is not applied in our selected regions. Compensatory allowances for less favoured areas (article 13-21) absorbs 45% of the expenditure for the RDP in Wales, whereas in the other regions expenditures are very limited. Agri-environmental measures (article 22-24) is the group of measures to which a considerable amount of money is spent in each region: when the former accompanying measures are included, the share in expenditure ranges from about 10% in Lower Saxony to 45% in Wales. Support for improvement of the processing and marketing of agricultural products (article 25-28) is moderate: it is between 0.5% in Northern Netherlands and just over 8% in Emilia Romagna. Support for forestry measures (article 29-32) is also moderate: it fluctuates from over 2% in Wales to about 6% in Northern Netherlands and Emilia Romagna. Finally, article 33 on promoting the adaptation and development of rural areas absorbs most of the expenditures in the RDP of Northern Netherlands and Lower Saxony: in both regions about two thirds of all financial means. In Wales and Emilia Romagna, about 4 and 8% is spent on this article. Article 33 is rather heterogeneous in composition. In Northern Netherlands, most of the expenditure is reserved for reparable (mainly requiring agricultural area for conversion into nature area) (measure k), water management (measure q) and improvement of the structure of nature areas (measured t), whereas in Lower Saxony article 33 expenditure is for a major part spent on reparable (measure k), village development and protection of rural heritage (measure o) and coastal protection (measure u).

Table 8.2 Distribution of the total public RDP budget over measures, 2000-2006 (%)

art.	Measures	NN	LS	Wales	ER
1257/99					
4-7	a Investment in agricultural holdings	6.1	15.2	0.5	19.9
8	b Setting up of young farmers	-	-	-	8.9
9	c Training	0.4	0.6	1.1	0.8
10-12	d Early retirement	-	-	-	-
13-21	e Less favoured areas and areas with environmental restrictions	0.9	0.3	44.8	2.1
22-24	f Agri-environment	8.5	9.2	28.3	41.6
25-28	g Improving processing and marketing of agricultural products	0.5	4.3	2.5	8.3
29-32	h Afforestation of agricultural land	1.0	1.0	2.1	4.2
29-32	i Other forestry measures	5.2	3.0	0.4	2.1
	Article 29-32, total	6.1	4.0	2.5	6.3
33	j Land improvement	-	-	-	-
33	k Reparcelling	20.2	11.9	-	-
33	l Setting up of farm relief and farm management services	-	-	-	-
33	m Marketing of quality agricultural products	0.7	0.2	-	1.9
33	n Basic services for the rural economy and population	1.0	0.2	0.8	-
33	o Renovation and development of villages and protection and conservation of the rural heritage	2.8	15.5	0.8	1.5
33	p Diversification of agricultural activities and activities close to agriculture to provide multiple activities or alternative incomes	3.1	-	0.4	1.6
33	q Agricultural water resources management	10.2	-	-	1.4
33	r Development and improvement of infrastructure connected with the development of agriculture	2.6	7.9	-	2.9
33	s Encouragement for tourist and craft activities	3.2	0.7	0.8	-
33	t Protection of the environment in connection with agriculture, forestry and landscape conservation as well as the improvement of animal welfare	20.2	4.0	0.8	0.1
33	u Restoring agricultural production potential damaged by natural disasters and introducing appropriate prevention instruments	-	25.6	-	-
33	v Financial engineering	-	-	-	-
	Article 33, total	64.1	66	3.5	7.6
	Other:				
	- Evaluations	1.0	0.1	0.0	0.5
	- Former accompanying measures	11.7	0.3	16.8	2.2
	- Transitory measures	0.6	-	-	-
	Total public expenditure for the RDP (in million €)	1057 a)	1684	813	852

a) For the whole country.

Source: Own calculations based on the RDPs of the regions.

The top 3 of measures with the highest expenditure in each RDP is summarized in Table 8.3.

Table 8.3 *Top 3 measures in each region*

Region	Art.	Measures	As % of total expenditure	
NN	33	Promoting the adaptation and development of rural areas	64	
		<i>of which:</i>		
	k	Reparcelling	20	
	t	Protection of the environment in connection with agriculture, forestry and landscape conservation as well as the improvement of animal welfare	20	
	22-24	f	Agri-environment (including former accompanying measures)	20
LS	33	Promoting the adaptation and development of rural areas	66	
		<i>of which:</i>		
		u	Restoring agricultural production potential damaged by natural disasters and introducing appropriate prevention instruments	26
	o	Renovation and development of villages and protection and conservation of the rural heritage	16	
	4-7	a	Investment in agricultural holdings	15
Wales	22-24	f	Agri-environment (including former accompanying measures)	45
	13-21	e	Less favoured areas and areas with environmental restrictions	45
	29-32	h	Afforestation of agricultural land	2
ER	22-24	f	Agri-environment (including former accompanying measures)	44
	4-7	a	Investment in agricultural holdings	20
	8	b	Setting up of young farmers	9

#### *Comparison of the intended measures a-v in the four RDPs*

Until now we have focussed on the distribution of expenditures on the different measures a-v in the RDPs. Now we turn to a comparison of the contents of each measure a-v in the four RDPs. This comparison is especially interesting in answering the question whether different regions plan to use different measures under each of these groups.

##### *a investment in agricultural holdings*

On the whole, support is given for investments in machinery, new products, diversification and experiments. All investments must comply with minimum standards regarding the environment, hygiene and animal welfare. In Wales, it is also possible to get support for investments for small-scale added value processing on the farm.

*b setting up of young farmers*

This measure is only applied in Emilia Romagna. It consists of a premium for young farmers setting up as farmer. Compliance with the minimum standards regarding the environment, hygiene and animal welfare and the assurance of economic viability are required.

*c training*

In all four RDPs, training is directed at a wide range of items, like diversification on the farm, nature and landscape conservation, environmental protection, integrated forestry and marketing and processing of agricultural products. In all cases, training is aimed at a wide group of persons such as farmers, forest and woodland owners, and other persons engaged in farming and forestry activities.

*d early retirement*

This measure is not applied in the RDPs of the four selected regions.

*e less favoured areas and areas with environmental restrictions*

In all RDPs, compensatory allowances per hectare are given to farmers in LFA provided that they commit themselves to good farming practices with regard to the environment and maintaining the countryside. In the RDP of Wales, LFA payments consist of two elements: a standard payment per hectare plus an additional payment when the farmer meets one or more indicators of sustainable farming.

*f agri-environment*

Under this heading, farmers receive payments for managing and developing landscape features and habitats. For this purpose, a large number of schemes with detailed descriptions have been developed. In all RDPs, several of the agri-environmental schemes refer to support for organic farming. In Lower Saxony and Emilia Romagna, support for the preservation of domestic animals races threatened with extinction is included. In Lower Saxony, support is also possible for the protection of drinking water. In the RPD of Wales, support for agri-environmental measures is only granted when the whole farm area is entered in the scheme.

*g improving processing and marketing of agricultural products*

In the RDP of Wales, the measure covers the four sectors of lamb, beef, dairy and organic products and support is reserved for the construction of new buildings, the refurbishment of old buildings; and the purchase of new equipment. In the other three regions, the above mentioned support can be given to all sectors and includes also support for the preparation of a strategic plan, research on new products, the establishment of quality certification systems and the introduction of technology directed at the protection of the environment also.

*h afforestation of agricultural land*

In the RDP of Northern Netherlands and Emilia Romagna, both permanent and temporary afforestation of agricultural land is allowed; in the RDPs of Wales and Lower Saxony, the measures refer to permanent afforestation only.

*i other forestry measures*

Grants for afforestation of non-agricultural land and support for investments for improving the economic, social and environmental value and/or management of existing woodlands and forests can be given in all four RDPs. In the RDP of Lower Saxony, support can be given for processing and marketing of forest products as well as for the development of new products, while the RDP of Emilia Romagna makes it possible to support forestry mechanisation and the setting up of associations of forest owners.

*j land improvement*

This measure is not applied in the RDPs of the four selected regions.

*k reparaelling*

This measure is only applied in the RDP of the Northern Netherlands and Lower Saxony. The measures include the purchase of agricultural area with high nature value for conversion into nature and recreation area on the one hand, and support for preparation and realization of land consolidation plans on the other hand. In Lower Saxony, support for improvements in infrastructure facilities in nature conservation areas can be given as well.

*l setting up of farm relief and farm management services*

This measure is not applied in the RDPs of the four selected regions.

*m marketing of quality agricultural products*

In the RDPs of the Northern Netherlands and Emilia Romagna support is given for the marketing of a wide range of quality products, whereas in Lower Saxony support is limited to marketing of organic products coming from priority areas for drinking water supply. In the RDP of Wales, the measure is not applied.

*n basic services for the rural economy and population*

In the RDP of the Northern Netherlands, a wide range of basic services is supported, like an information shop, meeting places, infant welfare centres, child health care, public traffic and activities focussed on the development and conservation of cultural values and regional identity. In Lower Saxony support is limited to the establishment of village or neighbourhood shops, public and community facilities providing access to information and communications technology, and the establishment of rural service agencies. In Wales, support will be provided to community partnerships in East Wales. In particular, support refers to community led projects that widen access to mainstream services for the rural economy and population or marginalised communities. Support for core administration costs, profit-orientated private sector ventures, investments in education or health services, media facilities (e.g. television decoders etc.), travelling shops and general retail activity is, however, excluded. In the RDP of Emilia Romagna, the measure is not applied.



*o renovation and development of villages and protection and conservation of the rural heritage*

In all four RDPs, support is given to the renovation and development of villages (built fabric, streetscape and public spaces) and protection and conservation of the rural heritage.

*p diversification of agricultural activities and activities close to agriculture to provide multiple activities or alternative incomes*

In the RDPs of the Northern Netherlands and Wales, diversification refers to a wide range of activities, such as traditional products, nature recreation, tourism, care and non-agricultural activities on farms, the introduction of ICT activities and development of opportunities for farmers and their families in the service and manufacturing industries including contracting. In Emilia Romagna, diversification measures are restricted to tourism and craft activities, however, within tourist activities specific attention is given to educational tours and educational farms. In the RDP of Lower Saxony, the measure is not applied.

*q agricultural water resources management*

In the RPD of the Northern Netherlands, a wide range of water management activities is supported, aimed at the improvement of hydrological systems directed at conservation, recovering or developing of natural and cultural landscapes, agriculture, and if possible, combined with flood-prevention, protection of drink water resources, and prevention of desiccation. Support for integrated water management by Water Boards is given as well. In the RDP of Emilia Romagna, support is aimed at the establishment of storage tanks to optimise the use of water resources and operations for the distribution of water to agricultural holdings. In the RDPs of Wales and Lower Saxony, the measure is not applied.

*r development and improvement of infrastructure connected with the development of agriculture*

In the RDPs of the Northern Netherlands, Lower Saxony and Emilia Romagna, support is given for the construction or maintenance of secondary roads with a local function. In the RDP of the Northern Netherlands, support can also be given for bicycle tracks along local roads aimed at the improvement of road safety; in the RDP of Lower Saxony support is also aimed at collective agricultural development facilities such as environmentally friendly washing, while in the RDP of Emilia Romagna support is also targeted at the improvement of the drinking water supply to rural areas and the use of renewable sources of energy. In the RDP of Wales, the measure is not applied.

*s encouragement for tourist and craft activities*

In the RDPs of the Northern Netherlands, Lower Saxony and Wales, support for measures aimed at the enhancement of rural tourism is given, like the construction or improvement of hiking, bicycle and horse roads and visitors' centres. In the RDPs of Wales and Lower Saxony, support is also given for the enhancement of craft activities whereas the RDP of Lower Saxony also foresees in support for the enlargement of an existing horticultural centre to which an arboretum is attached. In the RDP of Emilia Romagna, the measure is not applied.

*t protection of the environment in connection with agriculture, forestry and landscape conservation as well as the improvement of animal welfare*

In the RDP of the Northern Netherlands, support is targeted at the improvement of the structure of nature areas, at the design of local or regional nature and landscape management programmes, development of public green spaces in the context of land consolidation projects, the purchase of land for nature area, starting-up costs for mobilizing partnerships for agricultural nature conservation and starting-up costs for environmental projects at individual farms. In the RDP of Lower Saxony support is given for the promotion of new strategies relating to the agri-environmental domain, for nature/landscape conservation of specific areas and wetlands and for the protection of drinking water supplies. In the RDP of Wales, support under this measure is given to improve public access to nature areas, for improvements in animal welfare and riparian habitat management which do not qualify under the provisions of the agri-environment measure, and for waste management and recycling projects. In the RDP of Emilia Romagna, support under this measure is given for sustainable forest management.

*u restoring agricultural production potential damaged by natural disasters and introducing appropriate prevention instruments*

This measure is only applied in the RDP of Lower Saxony and refers to coastal protection (i.e. dyke-strengthening) and inland flood prevention by means of dyke-reinforcements and improvements, both in specific areas.

*v financial engineering*

This measure is not applied in the RDPs of the four selected regions.

#### **8.4 Concluding remarks**

From the comparative analysis of the RDPs in the Northern Netherlands, Lower Saxony, Wales and Emilia Romagna, the following concluding remarks can be made:

1. The key priorities for action in each RPD coincide with those announced in Agenda 2000:
  - Strengthening the agricultural and forestry sectors;
  - Improving the competitiveness of rural areas;
  - Preserving the environment and rural heritage.
2. The emphasis in the expenditure in all RPDs is on preserving the environment and rural heritage. In Wales, this is an absolute top priority, absorbing over 90% of the financial means. In the three other regions, and especially in Lower Saxony and Emilia Romagna, a considerable part of the money is also reserved for the priorities of strengthening the agricultural and forestry sectors and improving the competitiveness of rural communities. The fact that Wales intends to spend almost all expenditure on preserving the environment and rural heritage may be explained by the circumstance that a considerable part of Wales is eligible under Objective 1, which also includes measures to strengthen the competitiveness of rural areas.

3. From the comparison of the intended measures a-v, it appears that a main difference is whether or not these are included in the RDPs. The measures on investments in agricultural holdings (a), training (c), less favoured areas (e), agri-environmental measures (f), improving processing and marketing of agricultural products (g), afforestation (h, i), renovation and development of villages (o) and protection of the environment in connection with agriculture (t) are implemented in all four RDPs, whereas the other measures are only implemented in some of the four regions or not at all.
4. With regard to planned measures within the priorities of strengthening the agricultural and forestry sectors and improving the competitiveness of rural areas, differences are not very large between the four RDPs. However, this is not the case for achieving the priority of preserving the environment and rural heritage. In Wales and Emilia Romagna, measures planned under this priority refer mainly to compensations in LFA (e) and agri-environmental measures (f). Although in the Northern Netherlands and Lower Saxony these two measures are also intended to achieve the priority of preserving the environment and rural heritage, in these two regions a number of measures under article 33 play a major role in this priority as well. In the Northern Netherlands, an important measure in this respect is reparcelling (k), in particular the purchase of agricultural land for conversion into nature and recreation area, agricultural water resource management (q) and protection of the environment in connection with agriculture (t). In the RDP of Lower Saxony, important measures in achieving the priority of preserving the environment and rural heritage are coastal protection and inland flood prevention by means of dyke-reinforcements and improvements (u) and to a lesser extent reparcelling (k).

## 9. Socio-economic indicators in selected most urban case study regions

### 9.1 Introduction

In Chapter 2 we analysed a number of socio-economic indicators in EU regions. At the end of that chapter, we composed a list of most urban regions, whose socio-economic characteristics are more or less the same as those in the most urban regions in the Netherlands. In this chapter, we select four most urban regions for a case study: one from the Netherlands and three from other EU member states. This selection is discussed in Section 9.2. As a next step, in Section 9.3 we make a comparative analysis of socio-economic indicators in these four case study regions. This comparative analysis serves as a first introduction of the case study regions. In Chapters 10-13, the focus is on rural policy in each of the selected most urban regions.

### 9.2 Selection of case study regions

At the end of Chapter 2 we have identified 12 most urban regions, whose statistical socio-economic indicators are more or less similar to those of the three most urban regions in the Netherlands: Eastern, Southern and Western Netherlands (Tables 2.13 and 2.14). This list includes potential regions for case studies. Apart from statistical criteria, some more qualitative criteria also play a role in the selection of case study regions. These criteria are as follows:

- the region experiences increasing pressure from intensive agricultural production, which negatively affects the environment, water, nature and landscape;
- the case study regions have to be well-distributed across Europe.

By using these two additional criteria, we decided to select Southern Netherlands as the Dutch case study: its population density lies just between that of the Western Netherlands and the Eastern Netherlands and it experiences difficulties with intensive livestock production. As case study regions in other EU member states we selected North Rhine-Westphalia (W. Germany), Flanders (Belgium) and Lombardia (Italy) for case studies. These regions all suffer from problems with intensive agricultural production.

### 9.3 Comparative analysis of socio-economic indicators in the four case study regions

The size of the case study regions rather varies: Southern Netherlands is the smallest region with just over 7,000 km<sup>2</sup>, whereas North Rhine-Westphalia is the largest region with

more than 34,000 km<sup>2</sup> (Table 9.1). Flanders and Lombardia lie in-between with a size of about 14,000 and 24,000 km<sup>2</sup> respectively<sup>1</sup>. Population density fluctuates from 377 inhabitants/km<sup>2</sup> in Lombardia to 527 inhabitants/km<sup>2</sup> in North Rhine-Westphalia. Being the smallest region, Southern Netherlands has also the smallest population (3.5 million). Population in Flanders is nearly 6 million, in Lombardia just over 9 million and in North Rhine-Westphalia nearly 18 million. All regions experience a population increase in the 1990s, ranging from 0.1% p.a. in Lombardia to 0.7% p.a. in North Rhine-Westphalia.

Table 9.1 Area and population in the case study regions

	Southern Netherlands	North Rhine-Westphalia	Flanders	Lombardia
Total area, km <sup>2</sup>	7,101	34,080	13,512	23,872
Population density, 1998 (inhabitants/km <sup>2</sup> )	488	527	438	377
Population, 1998 (1000 persons)	3,467	17,975	5,920	9,009
Population growth, 1988-1998 (% p.a.)	0.6	0.7	0.4	0.1

Source: Own calculations based on Eurostat, Luxembourg.

GDP per capita is in all case study regions well above the EU average: GDP/capita in Southern Netherlands exceeds the EU average by 5% and that in Flanders by over 10%, whereas GDP/capita in North Rhine-Westphalia and Lombardia is about one fifth higher than the EU average (Table 9.2). The share of agriculture in total employment is small: it is 4% in Southern Netherlands and 2% in the other three case study regions. Employment growth during the 1990s was highest in Southern Netherlands, among others due to the so-called 'polder model'. Employment growth in this region is mainly made up of part time employment. North Rhine-Westphalia and Flanders experienced an employment growth in the 1990s of about 1% p.a., while employment growth in Lombardia was only 0.5% p.a. Remarkably, agricultural employment increased somewhat in the 1990s in the Southern Netherlands and North Rhine-Westphalia, whereas it decreased in Flanders and Lombardia. Unemployment rates in 1999 ranged between 3 and 8%.

<sup>1</sup> For discussion of the reasons for these differences in size of the regions: see Section 3.3.

Table 9.2 GDP, employment growth and unemployment rates in the case study regions

	Southern Netherlands	North Rhine- Westphalia	Flanders	Lombardia
GDP/inhabitant, 1998 (€)	21,184	23,893	22,671	24,628
GDP/inhabitant, 1998 (index, EU15=100)	105	119	112	122
Share agriculture in total employment, 1999 (%)	4	2	2	2
Growth total employment, 1989-1999 (% p.a.)	2.0	0.9	1.2	0.4
Growth agricultural employment, 1989-1999 (% p.a.)	0.4	0.4	-1.9	-4.6
Growth non-agricultural employment, 1989-1999 (% p.a.)	2.0 *)	0.9	1.3	0.5
Unemployment rate, 1999 (as % working population)	3	8	6	5

\*) Due to the small share of agriculture in employment and rounding off, growth rates of total employment and non-agricultural employment are the same for the period 1989-1999.

Source: Own calculations based on Eurostat, Luxembourg.

In our four most urban case study regions, the share of less favoured areas (LFA) is moderate: it ranges from nil in Flanders to 21% in North Rhine-Westphalia (Table 9.3). The number of hectares per farm holding is also relatively small: it varies from 11 hectares in Lombardia to 23 hectares in North Rhine-Westphalia. The economic size of farms (measured in ESU) in the Southern Netherlands is over 4 times as high as that in Lombardia. The number of ESU per hectare can be used as a yardstick for the intensity of farming. This is also the highest in Southern Netherlands, but it is also relatively high in the three other case study regions. In North Rhine-Westphalia, over one third of farmers have other gainful activities, whereas this share is about 20% or less in Southern Netherlands, Flanders and Lombardia.

Lombardia has over 100,000 farm holdings, which is about 4 times as much as Southern Netherlands and more than 2 times as much as Flanders (Table 9.4). The number of farm holdings in North Rhine-Westphalia amounts to about 66,000. The shares of farming types in Southern Netherlands and Flanders are rather similar: about 50-60% of farming types are in animal production, with a relatively large part in granivores (especially pig production); within crop production a relatively large share in these two regions is involved in horticulture. In Lombardia, the larger part of the farmers is involved in crop production whereas in North Rhine-Westphalia about one third of farmers is involved in crop production, one third in animal production and one third in mixed production.

Table 9.3 *Some agricultural indicators in the case study regions*

	Southern Netherlands	North Rhine- Westphalia	Flanders	Lombardia
Share LFA in utilised agricultural area, 1997 (%)	6a)	21	0	19
Utilised agricultural area per agricultural holding, 1997 (hectares)	14	23	14	11
Standard gross margins per agricultural holding, 1997 (European Size Units)	86	33	47	19
Standard gross margins per hectare utilised agricultural area, 1997 (European Size Units)	6.0	1.4	3.3	1.7
Share of farm holders with other gainful activity, 1997 (%)	22	37	16	15
Share of part time farm holders, 1997 (%)	35	58	39	70
GVA per agricultural worker, 1998 (€)	32,713	19,825	39,254	44,056

a) 1989/90.

Source: Own calculations based on Eurostat, Luxembourg.

Table 9.4 *Farming types in the case study regions, 1997 (as % of total holdings)*

	Southern Netherlands	North Rhine- Westphalia	Flanders	Lombardia
Specialist field crops	13	23	12	36
<i>of which:</i>				
- specialist cereals, oilseed and protein crops	1	11	2	26
- general field cropping	12	12	10	10
- specialist horticulture	12	4	11	1
Specialist permanent crops	6	2	5	18
<i>of which:</i>				
- specialist vineyards	0	0	0	14
- specialist fruit and citrus fruit	2	0	3	3
Specialist grazing livestock	35	37	39	33
<i>of which:</i>				
- specialist dairying	19	15	12	9
- specialist cattle-rearing and fattening	4	5	16	4
- cattle-dairying, rearing and fattening combined	1	2	5	1
- sheep, goats and other grazing livestock	11	16	6	19
Specialist granivores	19	3	10	1
Mixed cropping	3	3	3	4
Mixed livestock holdings	5	8	8	1
Mixed crops-livestock	7	19	11	6
Total number of agricultural holdings, 1997 (units)	27,010	66,350	44,470	100,870

Source: Own calculations based on Eurostat, Luxembourg.

## 10 Case study Southern Netherlands

### 10.1 Description of the case study region

#### *Function of the region*

Southern Netherlands consists of the Dutch provinces Zeeland, Brabant and Limburg. The region is located right in between three major economic centres in Western Europe: the Randstad in the western part of the Netherlands, the Ruhr district in North Rhine-Westphalia and the Brussels-Antwerp-Gent conurbation in Flanders in Belgium. The Dutch province of Brabant is sometimes called the second Randstad of the Netherlands. About 3.8 million inhabitants live in the Southern Netherlands and it is a densely populated and highly urbanised region. Brabant and Limburg have a higher population density (resp. 476 and 526 inhabitants per km<sup>2</sup>), whereas Zeeland is constituted of a number of isles and peninsulas with a lower population density (207 inh. per km<sup>2</sup>). Urbanised centres are concentrated in Brabant and the southern part of Limburg. The main cities are Eindhoven (204,000 inh.) and Maastricht (122,000 inh.). As many employees live outside these cities, the daily commuting results in serious traffic jams during the rush hours. The river Maas is an important axis for water transport.

Especially in Brabant and parts of Limburg the share of employment in industry is rather high. In the Southern Netherlands there is a tendency to develop from a production-based region (agriculture, industry) into a more service-based region (University of Maastricht et al., 2002). Knowledge, organisation, services, and the quality of life become more significant. The urbanisation process, such as new houses and industrial estates, is strictly controlled by spatial planning policy and is concentrated around the existing economic centres (Province of Limburg, 2002b; Province of Noord Brabant, 2002d). The main idea behind this strict spatial planning policy is that small centres and rural areas should preserve their own identity.

In the rural parts of the region, the economic structure consists of agriculture, forestry and small and medium-sized enterprises. Although the economic relevance of tourism in all three provinces is relatively small, it is increasing. As in the Dutch rural areas in general, the share of young people is decreasing and the share of elderly people is increasing in the population. Another important development is that many people are leaving the larger towns and are moving into rural areas that are thus slowly urbanising. In general, the Southern Netherlands is mainly a place to live and to work, with tourism in the rural parts.

#### *Natural and cultural heritage*

The landscape in the Southern Netherlands is diverse. The province of Zeeland is made up of isles and peninsulas with open areas with cultivated land, water and coastal areas. In large parts of Zeeland (coastal zone, Northsea), nature is protected by the Habitat and Birds



Directive, of which the largest part are also characterised as wetlands (Fig. 10.1). In Brabant and Limburg many small scattered areas are eligible under these Directives.

In the provinces of Brabant and Limburg, there are many nature areas, for example, forests, heath land, and areas of high natural beauty. These regions need new impulses to maintain or strengthen these qualities. Major protected areas are the 'Grote Peel' and the 'Mariapeel'. In the eastern and southern part of Limburg there is a hilly landscape. The river landscape around the river Maas (brooks, river forelands) is characteristic for Limburg as well.

A major part of the Southern Netherlands is embedded in the Ecological Main Structure, a project which is part of the Dutch nature policy (Province of Noord Brabant, 2002c). In the region there is also support for landscapes with outstanding scenic and cultural beauty, the so-called Valuable Cultural Landscapes. In each of the three provinces, one area is designated as a WCL area. In such areas many functions are interrelated, which may give rise to tensions. The government aims at the maintenance and strengthening of the specific qualities of these areas.

Within a large part of the Southern Netherlands (the border area), there is a concentration of areas where protection of the environment is the basic principle. Most of these regions are designated by provinces (environmentally protected areas) or the State (national landscapes) and partly overlap with other restricted areas such as the aforementioned WCL.

A substantial part of the Southern Netherlands is classified as Belvedere area. These areas with high cultural-historical values are concentrated in Zeeland and Limburg, concentrated in the area close to the Belgian border (Peel, Maasvallei). There is no restrictive policy within these classified areas, but cultural-historical potentials should be utilised in the course of rural development.

In total, approximately two-thirds of the total surface in the Southern Netherlands consists of areas designated as protected areas for one or another policy reason. However, the conditions to these restricted areas rather vary. Especially Limburg and the eastern side of Brabant include a large part of such areas. In Zeeland, 50% of the provincial territory has specific protection with certain restrictions on the use of the area. In the urbanised western part of Brabant there are relatively little restricted areas (Fig 10.1).

### *Agriculture*

The share of agriculture in total employment in Southern Netherlands is 4% (Table 10.1). In Zeeland, this share is somewhat larger. In contrast to the general trend in the Netherlands, employment in the agricultural sector slightly increases (0.4% per annum) during the nineties. One of the reasons is a continuously inflow of horticulture.

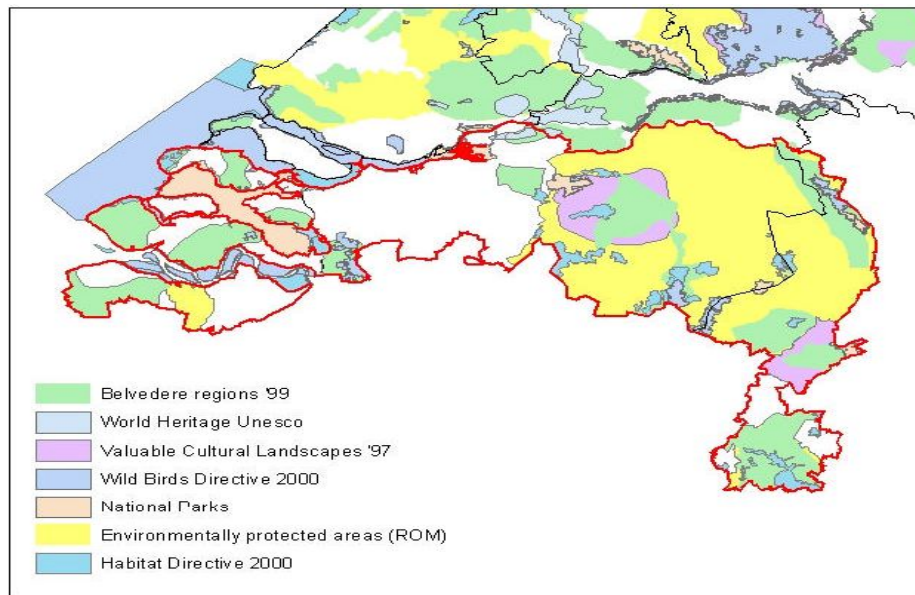


Figure 10.1 Restricted areas in the Southern Netherlands

Source: LEI.

Table 10.1 Some characteristics of the agricultural sector in Southern Netherlands

Share agriculture in total employment, 1999 (%)	4
Growth agricultural employment, 1989-1999 (% p.a.)	0.4
Share LFA in utilised agricultural area, 1997 (%)	6
Share of farm holders with other gainful activity, 1997 (%)	22
Share of part time farm holders, 1997 (%)	35
Utilised agricultural area per agricultural holding, 1997 (hectares)	14.4
Standard gross margins per agricultural holding, 1997 (European Size Units)	86.1
Standard gross margins per hectare utilised agricultural area, 1997 (European Size Units)	6.0
Total number of farm holdings	27,010
Specification of EU farming types (% of total):	
Specialist field crops	13
of which:	
- specialist cereals, oilseed and protein crops	1
- general field cropping	12
Specialist horticulture	12
Specialist permanent crops	6
Specialist grazing livestock	35
of which:	
- specialist dairying	19
- specialist cattle-rearing and fattening	4
- sheep, goats and other grazing livestock	11
Specialist granivores	19
Mixed cropping	3
Mixed livestock holdings	5
Mixed crops-livestock	7

Source: Own calculations based on Eurostat, Luxembourg.

In the Southern Netherlands there are about 27,000 farm holdings, of which one-third is specialized in dairy farming. About 13% are arable farms, which are mainly involved in general field cropping. A large share of these farms is located in Zeeland and West-Brabant. These are both large-scale and small-scale farms. In Zeeland, there is an influx of dairy farmers from other Dutch regions because this area is characterised by relatively low land prices and fewer environmental problems.

Agriculture in Brabant and Limburg is intensive with a high concentration of intensive livestock farms. This results in environmental problems (pollution of air, water and land) and a conflict situation with other functions in the region. A large-scale reconstruction of the pig sector involving resettlement and deconcentration is under way in both these provinces, which aims to improve nature and landscape qualities at the same time (Province of Noord-Brabant, 2002a). A large number of farmers recently agreed to a buy out by the national Government in the course of this operation and thus terminated their farming enterprises.

A substantial part of the farms (12%) is specialised in horticultural products. These farms are mainly located in West-Brabant, Limburg (mushroom and asperges production a.o.) and Zeeland (with a specialisation in fruit). The general expectation is that horticulture in the Southern Netherlands will increase in importance since horticultural farms in the western part of the Netherlands are forced out of business due to fierce competition with housing and industry in the context of spatial planning policies. The demand for building plots is high and land prices are accordingly. Part of these horticulturalists will move to the areas in the Southern Netherlands set aside for horticulture.

On the whole, agriculture in the Southern Netherlands is capital intensive (high prices for land, production rights, investments for environment and well-being of animals) and highly productive. The standard gross margin per agricultural holding is 86, whereas standard gross margins per hectare agricultural area utilised amounts to 6, well above the average for urban regions in the EU.

Organic farming and environmentally friendly types of agricultural production are developing. Tourism, recreation and nature conservation become nowadays also more relevant for the income of farmers. In 1997, over 20% of the farm holders enjoyed an income from other gainful activities. Only 6% of the agricultural areas utilised is classified as less favoured area (LFA). Especially in Zeeland the fishery sector is an important component of the employment and economy in the coastal zones.

### *Tourism*

The tourist sector in the Southern Netherlands employs about 1% of the total labour force. Attractive tourist areas are the coastal areas in Zeeland (water tourism). Tourists spend approximately 13 to 14 million nights per year in Zeeland. The hilly surroundings in Southern Limburg, with the Vaalseberg (321 m) as the highest hill of the Netherlands, the Maasvalley in the middle of Limburg and the Peel area in the northern part of Limburg are also pleasant natural surroundings for tourism and recreation. About 15 to 20 million nights per year are spent in the province Limburg by tourists. In Brabant main tourist attractions are the rural areas and the several amusement parks (Province of Noord Brabant, 2002d).

Tourists mainly originate from the Randstad (the highly urbanised western part of the Netherlands) and Germany. A substantial part consists of day or weekend tourism.

Table 10.2 Share of tourism in employment in the provinces of the Southern Netherlands (\*1000)

	Zeeland	Brabant	Limburg	Southern Netherlands
Employment in tourism (*1.000)	2.2	13.7	5.7	21.6
Total employment (*1.000)	153.1	1041.6	462.1	1656.8
Employment in tourism as % of total employment	1.4	1.3	1.2	1.3

Sources: Statline CBS, 2001.

### *Other economic activities*

The largest part of the labour force in the Southern Netherlands is employed in the services sector (Table 10.3). In total nearly two-thirds of the working population has a job in the services sector. In the Southern Netherlands, the tendency to develop from a production-based region (agriculture, industry) into a more service-based region will continue. Because of the strategic location of the Southern Netherlands, transport infrastructure (highway systems, high speed railway line) needs to be improved in order to solve problems as far as the accessibility of the region is concerned. In the Southern Netherlands some large multinationals like Philips (Brabant) and DSM (Limburg) are active.

Table 10.3 Employment by sector in the Southern Netherlands, 2000 (%)

	Zeeland (9%)	Brabant (63%)	Limburg (28%)	SN(100%)
Public sector	22	26	39	29
Services sector	49	38	27	36
Industry	22	30	29	29
Agriculture	7	5	5	5

Sources: Own calculations based on Province of Limburg (2002b), Province of Noord Brabant (2002d) and Province of Zeeland (2002).

### *Environmental and water concerns*

In Brabant and Limburg there is a high environmental pressure from intensive livestock farming (water, soil, air and odour nuisance). Many measures have been implemented during the last 10 years to restrict the pollution. In Southern Netherlands, environmental pressure from heavy industry is relatively low as this is only present in some areas.

In Limburg the threats of rivers flooding is of major concern. These rivers ought to be allowed more space so as to cope with the seasonal water quantity in a more natural manner. The restoration of natural brooks and water retention capacity are also current issues. The potential threat from the sea in Zeeland is also a major concern and therefore coastal dikes have been strengthened. In Brabant on the other hand some areas suffer from desiccation. It is expected that proper water management will be of growing importance in the entire region in the near future.

### *Rural development priorities*

Specific rural development priorities of the region are (Province of Limburg, 2002b; Province of Noord Brabant, 2002a, d; Province of Zeeland, 2002):

1. Renewal of agriculture, especially the reconstruction of the intensive livestock farming areas and stimulating multifunctional agriculture, allowing farmers to provide other services, such as nature and landscape management, leisure and tourism facilities, apart from the traditional products such as food and feed;
2. To improve the quality of nature and landscape (more biodiversity, regeneration of nature, landscape and cultural heritage);
3. To promote sustainable water management (coastal regions, rivers);
4. Economic diversification in relation to the careful use of the restricted space available;
5. To enhance the quality of life, especially social infrastructure in several areas;
6. Stimulating the quality and quantity of tourism and recreation.

## **10.2 Rural development policy and related measures**

### 10.2.1 Rural Development Plan

The Rural Development Plan (RDP), submitted within the scope of 1257/99, covers the whole area of the Netherlands. Although the RDP recognizes the existence of specific regional problems, it makes no distinction among planned measures for specific parts of the Netherlands, except for a number of measures for the so-called 'reconstruction areas'. These areas suffer from problems in intensive forms of agriculture such as horticulture under glass or animal (i.e. pig) husbandry and are eligible for subsidies for reconstruction. Reconstruction areas are mainly located in the southern, western and eastern parts of the Netherlands. So we can assume that all RDP measures may be implemented in the SN, unless it is indicated that the measures apply to reconstruction areas outside the Southern Netherlands. The planned RDP measures according to the 22 measures (a-v) in Reg. 1750/99 in the Netherlands are already presented in Fig. 4.2. The distribution of expenditure between the various measures is given in Table 4.3.

## 10.2.2 Other rural development measures

### *National rural policy*

Apart from the RDP for the Netherlands a large number of national rural development measures may be applied). We list these measures in Fig. 10.2, classified according to the headings of farm modernization, training, aid for processing and marketing, nature conservation and afforestation on agricultural land, nature conservation, cultural landscape, quality of life and region specific support.

<i>Heading</i>	<i>Measure</i>
Farm modernization	Investments in farms
Training	Demonstration projects for good agricultural practice with regard to sustainable agriculture
Aid for processing and marketing	Support for processing and marketing of forestry products Support for innovation in agricultural products, processing and marketing
Nature conservation and afforestation on agricultural land	Support for nature conservation on agricultural land Support for afforestation of agricultural land
Nature conservation	Support for measures to prevent acidification, eutrophication and desiccation of nature areas and forests Support for nature conservation in nature areas Support for the prevention of afforestation of reed areas Support for the maintenance of sheep flocks Support for national parks and parks bordering Belgium or Germany Support for protection of rare animals and plants
Cultural landscapes	Support for landscapes with outstanding scenic and cultural beauty (so-called WCL) Support for the conservation and maintenance of historical estates Support for development of high-quality landscapes Support for preservation of landscape elements
Quality of life	Support for renewal of rural areas Support for the enhancement of recreation
Region specific support	Support for reconstruction of intensive livestock farming (especially in the southern and eastern parts of the Netherlands) and of old greenhouse areas (western part)

*Figure 10.2 National rural development measures in the Southern Netherlands*

Source: Annex 3 of the RDP of the Netherlands.

### *Alliance of the Southern Netherlands*

The three provinces in the region joined forces in order to formulate a vision on future investments in the Southern Netherlands (University of Maastricht et al., 2002). The key points of this vision, called Invest in Southern Netherlands, are strengthening:

- the quality of living and working in the region;
- the potential of knowledge and innovations;
- the labour market.

### *Reconstruction of the pig sector*

The main aim of this reconstruction is the improvement of the spatial structure in the concentration areas of pig farming in the eastern part of Brabant and the northern and middle part of the province Limburg. The priorities are:

- strengthening the economic position of agriculture (creation of market-product combinations, multifunctionality, extensification of the production process and stimulating sustainable agriculture), recreation, tourism and improvement of the quality of life (working and living conditions);
- improving the quality of the environment (nature, landscape, water, air);
- reducing the veterinary vulnerability.

### *Headlines of the spatial development plans in the provinces*

In a large part of the Southern Netherlands, the spatial objective is to strengthen the coherence between (new) buildings and environment with maintaining an open infrastructure and imbedding and fitting into new tourist possibilities. All three provinces have their own spatial development programmes. In Figure 10.3 an overview of key priorities of spatial policy in the three provinces is given. In the provinces of Limburg and Northern Brabant a careful use of available space is of high importance.

Northern Brabant	Limburg	Zeeland
Reconstruction of the agricultural sectors (especially pig sector);	Reconstruction of agriculture; Strengthening the economic position of agriculture; Reduction of the veterinary vulnerability;	Renewal of agriculture;
Nature conservation (in agriculture);	Biodiversity and regeneration;	Nature conservation;
Revival of the rural area (filling-in a more regional rural policy); Careful use of space;	Vitality, (social as well as economical) of rural areas. Careful use of space;	Vitality of rural areas;
Stimulating recreation and tourism);	Stimulation of tourism (especially employment);	Stimulate quality and quantity of recreation and tourism;
Environment and nature (to realise the Ecological Main Structure, national landscapes);	Environment and nature (recovery and development): Diminishing the pollution of air, land and water.	Coherence in water policy;
Concentrating the urbanisation process; Stimulating employment; A restructure to durable industrial estates.	Economic growth in urban regions; Renewal of the industry.	More employment; A better social infrastructure.

*Figure 10.3 Overview of the spatial policy priorities of the three provinces in Southern Netherlands*  
Sources: Province of Limburg, 2001, 2002a, Province of Northern Brabant (2002a, b, c) and Province of Zeeland (1999a, b, 2001, a, b).

## *Objective 2*

The Objective 2 programme in the Southern Netherlands covers the rural parts in the three provinces, in which nearly 40% of the inhabitants live. The EU Structural Funds will contribute € 140 million to the total budget of € 396 million. The main priorities of the programme are land use management (including the strengthening of tourism) and improving competitiveness of businesses and tourism (Objective 2 Programme Southern Netherlands, 2002).

### *LEADER+*

The main objective of the LEADER+ program for the Southern Netherlands is to develop a sustainable, multifunctional region in which social and economic developments coincide with the preservation and strengthening of natural, countryside and environmental values. The priorities are (LEADER+, 2002):

- preserving cultural identity;
- preserving facilities and accessibility;
- strengthening the competitive position of (agricultural) businesses;
- promoting employment; mainly focusing on equal opportunities for women, men and young people;
- encouraging sustainable economic activities; experimental projects (laboratory);
- increasing the attractiveness of the countryside as a place to live and work.

### *INTERREG*

The province of Limburg in the Netherlands is part of the Euregio Maas-Rhein, for which an Interreg III A programme 2000-2006 is designed (EC, 2002). The partner regions are the province of Limburg in Flanders (Belgium) and North Rhine-Westphalia (Germany). Relevant priorities are tourism, rural development and the conservation of environment, nature and landscape. The total EU contribution amounts to € 53 million, 50% of the total costs.

The three provinces in the Southern Netherlands border Flanders in Belgium. Within Southern Netherlands-Flanders the Interreg III A Program will be performed (see also Chapter 12). Apart from the main priorities of Interreg III, specific priorities are tourism, environment, and water. The total investment of the program amounts to € 174.8 million, of which € 84.2 million is supported by EU Structural Funds.

Furthermore, the coastal zone in the province Zeeland is part of the North Sea Interreg IIIC and the provinces of Brabant and Limburg are together with the border regions in Germany and the Dutch province of Gelderland part of the INTERREG programme Euregio Rhine-Waal.

### *Nitrate Directive*

The objective of the Nitrate Directive of the EC (adopted in 1991) is the protection of waters against pollution caused by nitrate from agricultural sources. In the Netherlands it is



designated to the whole territory and the minerals accounting system is a crucial aspect of the system. The Directive is integrated in the Dutch manure and ammonia policy and leads to a considerable spread in costs between types of farming (EC Directorate General Environment, 2000). In the Southern Netherlands there are many farms with a highly intensive agricultural production system. In general, these farms have little land, so the relatively high costs consist for a large part of transporting the manure surplus. Other costs are the minerals accounting (€ 100 to € 600 per farm) and the investments in storage.

### 10.3 Assessment

In order to assess whether the planned measures in the RDP meet the priorities of the region, we face the difficulty that the RDP applies for the whole area of the Netherlands, and that the priorities defined in the RDP of the Netherlands differ to some extent from those identified for the Southern Netherlands in Section 10.1. In Fig. 10.4 the relation between the priorities in the RDP of the Netherlands and the specific development priorities for the study region are presented.

Rural development priorities in the RDP for the Netherlands	Relating to	Rural development priorities in the Southern Netherlands
1. Developing sustainable agriculture		1 Renewal of the agricultural sector, especially the reconstruction of intensive livestock farming and the development of multifunctional agriculture
2. Improving the quality of nature and landscape		2. Improving the quality of nature and landscape (nature conservation)
3. Sustainable water management		3. Sustainable water management (coastal zone, rivers, dry-out areas)
4. Economic diversification		4. Economic diversification, in relation to a careful use of the available space 1 Renewal of agricultural sector 6. Stimulating tourism and recreation
5. Promoting tourism and recreation		6. Stimulating tourism and recreation;
6. Improving the quality of rural life		5. Higher vitality of rural areas, (improve the social infrastructure)

Figure 10.4 Relationship between the rural development priorities in the RDP for the Netherlands and the priorities for the Southern Netherlands

#### *Rural developments priorities*

In Fig. 10.5 the planned RDP measures are classified according to the rural development priorities of the Southern Netherlands. Below we will briefly discuss these measures in the Dutch RDP and assess whether the proposed measures contribute to rural development priorities in the Southern Netherlands.

Rural development priorities of the Southern Netherlands	Planned measures in RDP	% of RDP budget
1 Renewal of agriculture	a1, a2, c1, e1, g1, f1, f2, h1, m1, k5, p2, s2	20-25%
2 Quality of nature and landscape	h2, i1, i3, k1, k2, k3, t1, t5	50-60%
3 Sustainable water management	q1, q3, q4	10%
4 Economic diversification	g1, p2, s2,	5%
5 Quality of life	n1, o1, r2	5%
6 Tourism and recreation	s1, s2, p2	5%

Figure 10.5 Planned RDP measures according to the rural developments priorities in Southern Netherlands

### Key priority 1 Renewal of agriculture

The priority of renewal the agriculture is supported by the following means in the RDP:

- Investments in agricultural holdings towards the development of new products, new techniques and experiments on decreasing production costs, improving the environment and animal welfare etc.;
- investments in the improvement of the structure of horticulture under glass;
- support for training for farmers;
- improving processing and marketing of agricultural products. Specific attention is paid to the marketing of quality products;
- support for the preparation and realization of land consolidation plans.
- compensatory allowances for the income loss during the transition period towards organic crop farming;
- compensatory allowances for less-favoured areas, which in the Netherlands is interpreted as compensations for the maintenance of natural handicaps;
- subsidies for the conservation and development of nature and landscape values in agricultural areas;
- subsidies for temporary afforestation of agricultural land;
- support for the marketing of quality products, which include organic, regional and traditional products;
- support for farm diversification, such as traditional products, nature recreation, tourism, care and non-agricultural activities on farms;
- support for measures aimed at the enhancement of rural tourism.

About € 250 million of public expenditure (25% of the total budget of the RDP) is reserved for measures to strengthen direct or indirect the agricultural sector. Also a substantial part of the budget for rural (Brabant and Limburg) and Dutch national policy is aimed at the agricultural sector, in particular the reconstruction of the intensive livestock farming.

### *Key priority 2 Quality of nature and landscape*

The following measures are planned to improve the quality of nature and landscape:

- subsidies for permanent afforestation of agricultural and non-agricultural land;
- support for the maintenance or improvement of the ecological stability of forests and nature areas;
- purchase of agricultural area for conversion into nature or recreation area;
- replacement and termination of farms, aimed at the conversion of agricultural area into nature or recreation area;
- improvement of the structure of nature areas;
- support for the design and implementation of local or regional nature and landscape programmes towards the protection of the natural heritage and the environment.

About half of the RDP budget for the period 2000-2006 is reserved for this priority of which a substantial part for the measures k (Reparcelling; € 213 million) and t (Protection of the environment). In the region, the price of agricultural land is rather high (on average € 35-40,000 per ha), so when assuming that a quarter of the total RDP budget for measure k should be spend in the Southern Netherlands, about 2100 ha of agricultural area with high nature value (less than 1% of total agricultural area utilised in the Southern Netherlands) can be achieved by the state.

### *Key priority 3 Sustainable water management*

In the RDP specific measures are included for enhancing (agricultural) water resources management:

- investments in water management in areas with agriculture and nature, which are threatened by desiccation;
- water management in selected areas, aimed at the improvement of hydrological systems directed at conservation, recovering or development of natural and cultural landscapes and agriculture;
- support for integrated water management by Water Boards; a wide range of general measures is included to improve the water systems.

About 10% of the total budget is reserved for this priority. These measures are expected to contribute to improved water management in agriculture. In the last 10 years, farmers experienced several times many difficulties with the flooding of the rivers. However it may be wondered whether these measures will sufficiently reduce the problems of rivers flooding the threat from the sea by improving the dykes.

### *Key priority 4 Economic diversification*

In the RDP of the Netherlands the following measures can be used to stimulate economic diversification:

- support for farm diversification (traditional products, nature recreation, tourism, care, non-agricultural activities, introduction of ICT activities);

- enhancement of rural tourism (design of plans for rural tourism, construction and improvement of recreation facilities);
- support for improving the processing and marketing of agricultural products.

Although the budget for this priority is rather limited (5%), it has to be noted that a substantial part of the measures mentioned under key priority 1 also positively affect the economic position of farmers by improving the marketing of (new) agricultural products and by stimulating new production techniques and products. Other policies that support the economic diversification of the Southern Netherlands are, for example, Objective 2, LEADER+, the provincial development programmes, and the Alliance of the Southern Netherlands.

#### *Key priority 5 Quality of life*

To stimulate the quality of life in rural areas, the RDP intends the following measures: Support for collective basic and tailor-made services, including meeting places, infant welfare centres, child health care and public traffic;

- support for activities focussed on development and conservation of cultural values and regional identity;
- support for renovation and development of villages and protection and conservation of rural heritage;
- construction of secondary roads with a local function and bicycle tracks along local roads aimed at the improvement of road safety.

In the RDP, only a small part of the budget (5%) is directly related tot the quality of life. Achievement of this priority depends to a large extent from other policy .

#### *Key priority 6 Stimulating tourism and recreation*

In the RDP the next measures stimulate tourism and recreation:

- provision of recreation facilities;
- enhancement of rural tourism (design of plans for rural tourism, construction and improvement of recreation facilities).

Only a small part of the RDP budget is aimed at this priority. However, tourism and recreation is also stimulated by other policies, such as the provincial policies.

### **10.4 Concluding remarks**

In the Southern Netherlands there is a tendency to develop from a production-based region into a more service-based region. The aim is to become one of the leading regions in the economy of North Western Europe, taking into account that the economic activity is strongly related to a careful use of the limited space. In a large part of the Southern Netherlands the quality of nature and landscape has a high priority. In total, approximately two-

thirds of the total surface in the Southern Netherlands consist of areas designated as protected areas for one or another policy reason.

In the rural development policy in the Southern Netherlands, key priorities are the development of a sustainable agricultural sector and improving the quality of nature and landscape. The sustainable development of agriculture is also supported through the national policy of the Reconstruction of intensive livestock farming, thereby reducing the pollution. In the RDP, about 75% of the budget is reserved for these two priorities. These two priorities also positively affect other priorities in the Rural Development Plan, such as tourism and the quality of rural life, which both receive only a small part of the budget in a direct way. A limited part of the RDP budget is devoted to agricultural water management. The question is to what extent these measures will actually restrict the threats of rivers flooding, solve growing problems in terms of desiccation, or contribute to the restoration of brooks and water retention capacity. Next to this, strengthening the coastal dikes in Zeeland is also of concern. It is expected that proper water management will be of growing importance in the future.

# 11. Case study North Rhine-Westphalia

## 11.1 Description of the case study region

In 1946 the amalgamation between the Prussian province of Westphalia and the northern part of the Rhineland took place and thus the federal region North Rhine-Westphalia (Nordrhein-Westfalen) was formed. In the beginning the two parties looked somewhat askance at each other, but this has since long been forgotten. The feeling of belonging together grew stronger as joint achievements were made. There is no longer any feeling of being separated by the hyphen (CEC, 1993a).

This section describes the main social, economic, cultural and environmental characteristics of North Rhine-Westphalia by using seven indicators of sustainable rural development.

### *Function of the region*

With 34,080 km<sup>2</sup>, North-Rhine-Westphalia is half the size of Bavaria and the fourth largest German state. It largely outranks all the other states in terms of population, economic power and political power. The economic and cultural powers are centred in the areas Düsseldorf and Cologne. The population density of 527 inhabitants per km<sup>2</sup> on average is about twice the average of the other German states (LUA, 2000). The heart of North Rhine-Westphalia comprises the Rhine-Ruhr area with its extremely diversified industry. From 1949 to 1999 the region was home to the provisional federal capital Bonn. Furthermore, 30 of Germany's 84 largest cities are in North Rhine-Westphalia (Rural Europe, 2000). Table 11.1 shows some figures of the size, population and employment of the region.

The region North Rhine-Westphalia is the base of Germany's economic power. It was industrialised at an early stage. The Rhine-Ruhr area has a diversified industry, amongst others: chemicals, steel, machine construction, food industry, car manufacturing and electronics. Outside this area other important industrial activities take place in the Aachen-Düren area (lignite, electricity production, metalworking, glass and paper industries, tyres) the Siegerland area (metalworking, machine construction) and the Münster land area (food, furniture). The region owes its economic status to the combination of three factors (Rural Europe, 2000):

- an unparalleled wealth of mineral resources, comprising the large coal reserves of the Ruhr, the lignite or brown coal deposits of Cologne-Aachen and salt and metal ore deposits. The salt and metal ore deposits played a leading role in the region's industrialisation but are almost depleted today. The coal reserves are valuable for the chemical industry and the production of electricity;

- the largest river in Europe, the Rhine, runs through this region. It is particularly suitable for the transportation of heavy products to and from Rotterdam and other main ports overseas;
- a remarkable spirit of enterprise which appeared very early on.

Table 11.1 Area, population and employment in North Rhine - Westphalia

Total area (km <sup>2</sup> )	34,080
Population, 1998 (1000 inhabitants)	17,975
Population density, 1998 (inhabitants/km <sup>2</sup> )	527
GDP/inhabitant, 1998 (index EU15 = 100)	119
Unemployment rate, 1999 (as % working population)	8
Distribution of the working population (%)	
- primary sector	2
- secondary sector	35
- tertiary sector	63

Source: Eurostat and Rural Europe (2000).

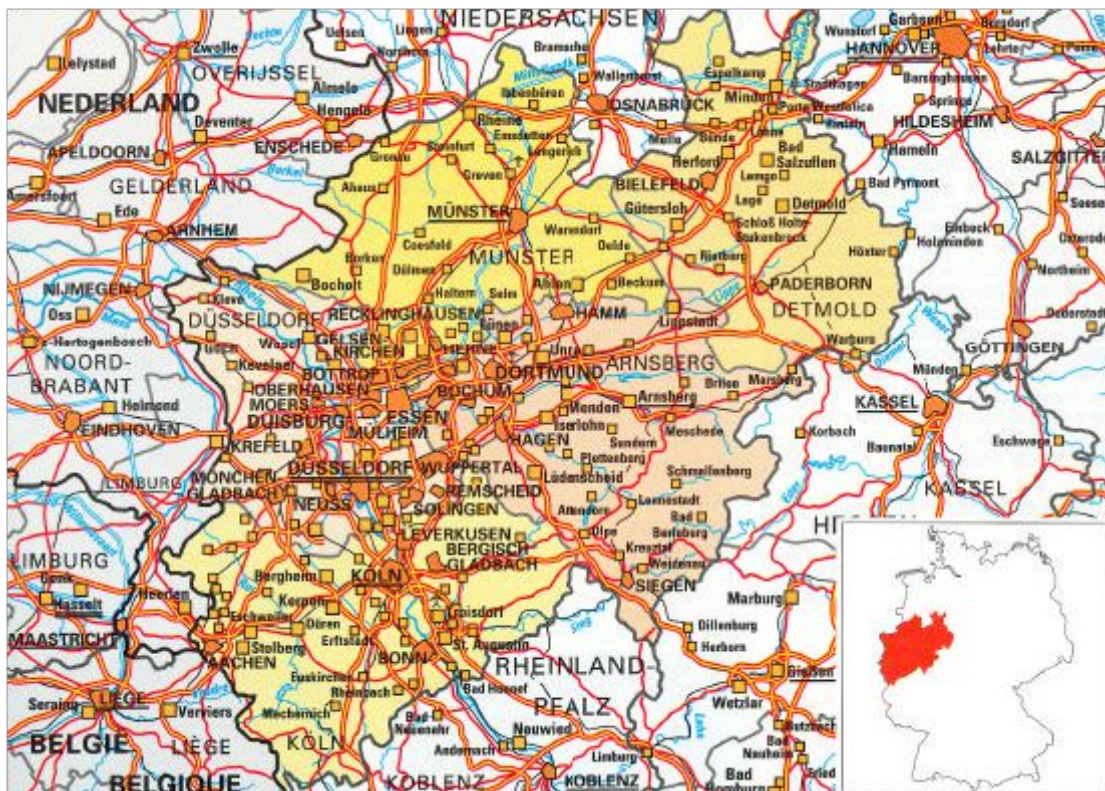


Figure 11.1 Map of the region

Source: CEC (1993a), Portrait of the regions; Volume 1: Germany, Benelux and Denmark; Luxembourg.

North Rhine-Westphalia can be divided into five 'districts'. It encompasses the areas of Düsseldorf, Cologne, Münster, Detmold and Arnsberg. In the Düsseldorf district, industrial

landscapes alternate with newly created peripheral zones and rural areas. About two-thirds of the population live in 12 cities. Approximately half of the district Cologne is used for agricultural purposes and more than a quarter is covered by woods. The population is concentrated in the urban belt along the Rhine. Münster still is a traditional conscious farming area with lively and well-distributed regional and local centres with a highly industrialized strip in the south. The number of inhabitants is clearly lower in Detmold than in the other districts and the scenery is characterised by stretches of hilly country. Arnsberg is a junction for motorways and railway lines from all directions. Furthermore it comprises Sauerland which is an area for leisure and tourism (CEC, 1993a).

Table 11.2 Area and population per region in North Rhine-Westphalia, 1998

	Inhabitants (in millions)	Area (km <sup>2</sup> )
Düsseldorf	5	5,290
Cologne	4	7,364
Münster	3	6,905
Arnsberg	4	8,001
Detmold	2	6518
NRWF	18	34,080

Source: LUA, 2000.

### *Natural and cultural heritage*

A surprising fact is that in this heavily industrialised and most densely populated region, forests cover nearly one-quarter of the territory. More than half of this woodland area is cultivated by large enterprises. Bordered by the Netherlands and Belgium, North Rhine-Westphalia is home to the Rhine Slate Mountains, spread over the Sauerland in the southeast and the Eifel in the southwest. It also includes the area of Börde covering the Cologne plain and the Westphalian bay. The Teutoburg forest and the Weser mountains are in the Northeast (Rural Europe, 2000). Furthermore, the river Rhine stamps its mark on a large part of the region, since it flows through it over a distance of 226 km (CEC, 1993a).

The 14 natural parks that North Rhine-Westphalia holds, cover about 10,091 km<sup>2</sup>. Furthermore there are 1796 nature reserves and 2011 protected nature zones that cover respectively 1213 and 1800 km<sup>2</sup> (Rural Europe, 2000). Together these restricted areas cover about 38% of the total area of North Rhine-Westphalia.

Rhineland is Germany's oldest cultural centre. Names such as Cologne and Aachen are synonymous with soaring Gothic architecture and with the history and lives of many of the great names of Western Europe. The cultural centre is the state capital, Düsseldorf, with a fine opera house as well as many concert halls, galleries and art exhibitions. There are over 20 theatres and 17 museums, including the State Art Gallery of North Rhine-Westphalia, the Kunsthalle (City Exhibition Hall) and the late Baroque Benrath Palac. An old Roman city, Cologne, is an important cultural and commercial centre holding many



trade fairs each year. Germany's biggest indoor arena opened in the city recently (Worldtravelguide, 2002).

### *Agriculture*

In this heavily industrialised and densely populated region, farmland occupies about 50% of the territory. Although the share of agriculture in total employment is 2% (Table 11.3), the rural areas of North Rhine-Westphalia play an important role, ensuring part of the food supply of the inhabitants of the immense Rhine-Ruhr conurbation. Most of the farms are specialised in grazing livestock (37%). Furthermore 23% is specialised in field crops and about 30% is mixed farming.

*Table 11.3 Some characteristics of the agricultural sector in North Rhine-Westphalia*

Share agriculture in total employment, 1999 (%)	2
Growth agricultural employment, 1989-1999 (% p.a.)	0.4
Share LFA in utilised agricultural area, 1997 (%)	21
Share of farm holders with other gainful activity, 1997 (%)	37
Share of part time farm holders, 1997 (%)	58
Utilised agricultural area per agricultural holding, 1997 (hectares)	23.1
Standard gross margins per agricultural holding, 1997 (European Size Units)	32.8
Standard gross margins per hectare utilised agricultural area, 1997 (European Size Units)	1.4
Total number of farm holdings	66,350
Specification of EU farming types (% of total):	
Specialist field crops	23
<i>of which:</i>	
- specialist cereals, oilseed and protein crops	11
- general field cropping	12
Specialist horticulture	4
Specialist permanent crops	2
Specialist grazing livestock	37
<i>of which:</i>	
- specialist dairying	15
- specialist cattle-rearing and fattening	5
- sheep, goats and other grazing livestock	16
Specialist granivores	3
Mixed cropping	3
Mixed livestock holdings	8
Mixed crops-livestock	19

Source: Own calculations based on Eurostat, Luxembourg.

The less densely populated areas of North Rhine-Westphalia are mainly located in the northern part of the region and in the southwest. The agricultural activities that take place in the northern part are located in the lowlands (Münsterland) and in the district of Höxter in the north-eastern part of the region. In Höxter, located close to Lower Saxony, the soil is very fertile and favouring a large range of crops. The often intensive agriculture in the

north is dominated by large farms. The southwestern zone corresponds to the district of Düren, near the Belgian border (Eifel mountains). This area is mountainous and rich in forests, and especially an area of grazing (Rural Europe, 2000).

### *Tourism*

The countryside of North Rhine-Westphalia plays an important role in the recreational needs of the inhabitants of the immense Rhine-Ruhr conurbation. As far as the tourist facilities are concerned, until now they have only been adequate in the traditional tourists areas (Sauerland, the Duchy of Berg, Siebengebirge, Teutoburg forest) which enjoy a pleasant natural environment. Tourism in these areas concerns mainly families with little children (MINUNL, 1999).

### *Other economic activities*

Although industry still plays a great role in the North Rhine-Westphalian economy, nowadays the services sector is rapidly developing (LUA, 2000). The secondary sector provides employment for about 35% of the total working population, whilst about 63% of the working population works in the tertiary sector, only 2% works in the primary sector (Table 11.1).

### *Environmental concerns*

The economic development of the last 150 years has had adverse effects on the environment. North Rhine-Westphalia took action very early on in order to protect the basis of life for men, animals and plants. Action was taken in different fields. Measures comprise controlling the sulphur and nitrogen produced by power stations to decrease air pollution and the recycling of waste products. Still the continuous increase in motor vehicle traffic contributes to the discharge of more and more oxides (CEC, 1993a).

Furthermore, there are many side effects of production in the primary sector caused by the intensification of agricultural enterprises like the pollution of soil, ground and surface water with nutrients and toxic matters. The diversity and numerousness of species also diminishes with the decline of the number of rare biotopes. In addition, intensive cattle breeding causes air pollution because of the emission of oxides like ammonia. Another side effect of the industry and the intensive agriculture is the decline of the diversity, characteristics and beauty of landscape (MINUNL, 1999).

### *Water concerns*

In North Rhine-Westphalia about 50 to 60,000 ha is irrigated. This is mainly a feature in the west of Köln and in the Niederrhein area where groundwater supplies are rare. Horticultural crops, fruits and vegetables usually suffer from drought, and in order to ensure the quality and yields, these crops are irrigated. Better water management is needed to avoid more adverse effects of irrigation on the environment. The environment is influenced by the use of energy and water. Furthermore indirect effects play a role, for

example, the concentration of nitrate in the soil that is washed out because of the irrigation (MINUNL, 2000b). The increasing nitrate concentration in the groundwater is a concern, particularly in areas where intensive agriculture is located. Another adverse effect on the environment is that of the enormous industrial capacity that is concentrated in the Rhine-Ruhr area. This has also led to serious pollution of the Rhine (CEC, 1993a).

### *Development priorities*

The development of an attractive rural environment by balancing the economical and ecological environment is the main priority of North Rhine-Westphalia (MINUNL, 2000b).

More specific the development priorities of the region are:

Improvement of the production and marketing structure in agriculture;

Measures for rural development;

Measures addressing agri-environment, compensation and forestry.

## **11.2 Rural development policy and related measures**

### 11.2.1 Rural Development Plan

An overview of the proposed measures in the RDP for North Rhine-Westphalia is presented in Figure 11.2.

RDR Measure	No.	Planned measures in RDR
1 art. 4-7		<b>(a) Investment in agricultural holdings</b>
	a1	Investments of the following kind are supported: <ul style="list-style-type: none"> <li>- improving and protecting the environment;</li> <li>- better animal welfare;</li> <li>- better hygiene;</li> <li>- diversification;</li> <li>- improving production conditions.</li> </ul>
2 art. 8	b1	<b>(b) Setting up of young farmers</b>
		Young farmers who take over an agricultural holding can apply for a settlement contribution. They have to be younger than 40 years of age, engaged in an agricultural business before, and should be trained in an agricultural discipline.
3 art. 9		<b>(c) Training</b>
	c1	Support for training in North Rhine-Westphalia involves increasing knowledge, abilities and skills. Participants should work in agriculture as a main or part time occupation. The most important disciplines are: <ul style="list-style-type: none"> <li>- environmental sustainable production;</li> <li>- safe and healthy food production;</li> <li>- solutions to socio-economic problems;</li> <li>- new agricultural rules and regulations;</li> <li>- selling an agricultural holding;</li> </ul>

		<ul style="list-style-type: none"> <li>- agricultural insurances;</li> <li>- cooperations;</li> <li>- EDV (Elektronische Datenverarbeitung) use in agriculture and horticulture;</li> <li>- bookkeeping;</li> <li>- building and renovating environmental-friendly of agrarian related projects;</li> <li>- usage of pesticides and weedkillers in order to protect pot plants, ornamental plants and wood.</li> </ul>
5 art.13-21		<b>(e) Less favoured areas and areas with environmental restrictions</b>
	e1	About one fifth (21%) of North Rhine-Westphalia is designated as less favoured area. Furthermore, over 230,000 ha is designated as area with environmental restrictions. These areas particularly deserve protection because they accommodate habitats or animal and plant species identified in the Annex to the 'Flora-Fauna-Habitat' (FFH) or the Protection of Birds Directive. The object of support in these areas is the maintenance of permanent grassland.
6 art.22-24		<b>(f) Agri-environment</b>
	f1	<p>Agri-environmental measures are based on voluntary participation of farmers and have the objective to protect the environment and develop the landscape by using production processes that are ecologically friendly. The measures consist of 7 main components :</p> <ol style="list-style-type: none"> <li>1. <i>Support for agriculture adapted to markets and sites</i> This includes the introduction or preservation of extensive production methods in arable farming or in permanent cultivation, extensive farming on pastureland, ecological farming methods or solid dung farming.</li> <li>2. <i>Support for establishment of marginal strips on banks</i> This includes the establishment of a 3 to 30 m wide strip sown with perennial grasses or a margin at the edge of pasture to avoid the spread of plant protection agents and minerals. It may also prevent the spread of diseases and pests. The following conditions apply to these strips: no use of fertilisers and plant protection agents, no grazing, no mowing before 15 June and no deployment of amelioration techniques.</li> <li>3. <i>Promotion of measures for prevention of erosion</i> These measures are in the interest of farmers themselves but can also prevent damage elsewhere. Subsidies compensate for larger efforts by farmers and higher costs. Subsidies are granted for soil cultivation and tillage methods concerning beet, maize, rape, potatoes, corn, legumes and pasture grasses.</li> <li>4. <i>Support for long term set aside of agricultural area for environmental protection</i> Setting aside will lead to the improvement in the soil and recovery of the stability of the ecological system. Self-regulation of the system is also important. The area set aside should be at least 5 m wide.</li> <li>5. <i>Support for breeds of domestic animals threatened with extinction</i> In order to preserve and maintain the landscape, the survival of breeds under threat is supported. Subsidies include breeding and keeping of selected domestic breeds of bovine cattle, sheep, horses and pigs. Farmers should have to participate in a breeding and reproduction programme for at least 5 years.</li> <li>6. <i>Support for environmental awareness in field margins and pasture farming and establishment, farming and care of other biotopes covered by nature protection contracts</i> This includes exploitation of arable acreage, farming pasture and other biotopes in accordance with principles of protection of nature. Preservation, development and management of meadows with scattered fruit trees are eligible to support. In general support is offered in the whole region, e.g. in nature protection zones, particularly protected biotopes.</li> </ol>

		<p>7. <i>Pilot study projects</i></p> <p>Pilot studies may facilitate the accession to newly developed techniques. Scientific inventions are put in practice for the first time. For example, pilot studies that test more environmental-friendly production processes are subsidised.</p>
7 art.25-28		<b>(g) Improving processing and marketing of agricultural products</b>
	g1	<p>The overall aim is to increase the competitiveness of producers and processors in North Rhine-Westphalia. The support covers five measures:</p> <ul style="list-style-type: none"> <li>- regional marketing;</li> <li>- organic farming;</li> <li>- renewable raw materials;</li> <li>- fruit, vegetables and potatoes;</li> <li>- flowers and plants.</li> </ul> <p>The support for regional marketing and organic farming is concentrated on investments for processing and marketing and expenditures on drawing up marketing concepts, and setting up and expanding operations. The support for renewable raw materials includes investments in reception, storage and preparation of agricultural products. The support for the last two measures is concentrated on investments to extend, to convert, to modernise and to rationalise processing and marketing.</p>
8 art.29-32		<b>(h) Afforestation of agricultural land</b>
	h1	Support for the costs of initial (permanent) afforestation of agricultural land and costs of looking after plantings.
		<b>(i) Other forestry measures</b>
	il	<p>The objects of support are:</p> <ul style="list-style-type: none"> <li>- investment in processing and marketing of forestry products;</li> <li>- start up aid for associations of forest owners;</li> <li>- maintenance and development of ecological stability of woodland.</li> </ul>
9 art.33		<b>(k) Reparcelling</b>
	k1	<p>Initiatives that are supported are as follows:</p> <ul style="list-style-type: none"> <li>- common initiatives on land consolidation measures and accelerated merging of land parcels;</li> <li>- development of new parcels of land in terms of environmental protection, nature protection and countryside stewardship, protection of soil and water, including important landscape elements to create a system of biotopes and measures to protect historical monuments;</li> <li>- acquisition of intervening land parcels for the purpose of consolidation.</li> </ul>
		<b>(l) Setting up of farm relief and farm management services</b>
	ll	Support may be granted to business management associations (representing at least 15 enterprises) for contributions to new farm management services, special audits of book-keeping documentation requested by the farm management service and costs of required laboratory investigations requested by the farm management service.
		<b>(m) Marketing of quality agricultural products</b>
	m1	No separate description of this measure is provided in the RDP, as this is closely related to the measures under g1.
		<b>(o) Renovation and development of villages and protection and conservation of the rural heritage</b>
	o1	<p>Renovation and development of villages need impulses in order to maintain villages as a location for agricultural holdings, dwelling space for citizens, area for tourists and a location for specific trades. The following measures are supported:</p> <ul style="list-style-type: none"> <li>- improvement of the traffic situation within the villages;</li> <li>- development of squares and open spaces and establishment of green areas in public spaces;</li> </ul>

		<ul style="list-style-type: none"> <li>- preservation of buildings formerly used for farming and forestry purposes;</li> <li>- adaptation of farming and forestry buildings to modern living and working requirements.</li> </ul>
		<b>(p) Diversification of agricultural activities and activities close to agriculture to provide multiple activities or alternative incomes</b>
	p1	<p>Through diversification, agricultural holdings may be maintained as family businesses. Incomes of these holdings become more stable and perspectives of continuation of businesses improve. Support is given for:</p> <ul style="list-style-type: none"> <li>- costs to set up an agricultural subsidiary business and/or formation of associations for the joint opening up of alternative sources of income;</li> <li>- expenditure on strategy concepts for the diversification project;</li> <li>- measures for acquisition of the expertise needed to meet the aim of the subsidiary business and/or formation of associations;</li> <li>- demonstration projects to check the ecological and economic feasibility of unique inventions.</li> </ul>
		<b>(q) Agricultural water resources management</b>
	q1	<p>The use of water should be reduced by 10 to 30%. Subsidies are aimed at:</p> <ul style="list-style-type: none"> <li>- adding equipment to and re-equipping irrigation installations;</li> <li>- acquisition of apparatus to optimise irrigation techniques and irrigation management;</li> <li>- installation of water and energy efficient irrigation systems.</li> </ul>
		<b>(t) Protection of the environment in connection with agriculture, forestry and landscape conservation as well as the improvement of animal welfare</b>
	t1	<p>Two pilot projects are started up in order to furnish information and empirical data upon which future official projects can be formulated. The first pilot is on the protection of wild species of indigenous useful plants and potentially useful species of wild plants. The second project concerns the shelters that farms provide to old and traditional cultivars, regional species, and no longer farmed cultivars.</p>

Figure 11.2 Overview of the measures in the RDP of North Rhine-Westphalia

In order to get some insight in priorities in the long list of proposed measures in the RDP, it is useful to examine the distribution of expenditure among the various measures. From Table 11.4 it may easily be seen that about 30% of expenditure will be used for agri-environmental measures (art. 22-24). Furthermore, forestry measures, investments in agricultural holdings and measures concerning LFA areas also have high priority as 13%, 15% and 14% of the total budget respectively is distributed over these measures. About one sixth of the budget is reserved for art. 33. Within this article, priority is given to measure (k) on re-parcelling and measure (o) on renovation and development of villages and protection and conservation of the rural heritage.

### 11.2.2 Other rural development policy measures

In this section, we discuss some main other rural development measures, which are not covered by the RDP.

Table 11.4 Total public expenditure, 2000-2006 (mln. euro)

art.	Measures	Total	in % of total
1257/99			
4-7	a Investment in agricultural holdings	125.94	14.7
8	b Setting up of young farmers	9.58	1.1
9	c Training	5.90	0.6
13-21	e Less favoured areas and areas with environmental restrictions	116.66	13.6
22-24	f Agri-environment	254.84	29.7
25-28	g Improving processing and marketing of agricultural products	77.34	9
29-32	h Afforestation of agricultural land	21.83	2.5
29-32	i Other forestry measures	87.59	10.2
	Article 29-32, total	109.42	12.7
33	k Reparcelling	48.42	5.6
33	l Setting up of farm relief and farm management services	7.26	0.8
33	m Marketing of quality agricultural products	5.00	0.5
33	o Renovation and development of villages and protection and conservation of the rural heritage	62.14	7.2
33	p Diversification of agricultural activities and activities close to agriculture to provide multiple activities or alternative incomes	9.80	1.1
33	q Agricultural water resources management	3.21	0.3
33	t Protection of the environment in connection with agriculture, forestry and landscape conservation as well as the improvement of animal welfare	3.88	0.4
	Article 33, total	139.71	16.3
	Other:		
	- Evaluations	2.04	0.2
	- Former accompanying measures	14.34	1.6
	- Transitory measures		
	TOTAL a)	855.76	100

a) EU contribution is about 35%.

Source: Own calculations based on RDP of North Rhine - Westphalia, Annex 14.

## Objective 2

The European Commission actively participates in the development of North Rhine-Westphalia by co-financing the Objective 2 Programme for the area during 2000-2006. Objective 2 concerns a part of the Ruhr area, the Heinsberg area and the cities Krefeld and Ahlen. Furthermore the areas Aachen, Duren, Euskirchen, Hoxter and Paderborn will receive funds from the former objective 5b programme until 2005.

The programme, which is only partly directed at rural areas, revolves around four priority areas and technical assistance measures. The priorities are as follows (MINUNL, 2000a):

### 1. Business and start-up finance

Financial support is granted to start-ups begun by university graduates and 'master craftspeople'. Aid will be provided for commercial investments, venture capital, and the hiring of unemployed people and those threatened by unemployment;

## *2. Innovation and development of competencies*

Measures concentrate on technology, innovation, and future energy sources; development of SMEs, industry, and labour aspects of business development; and regional development and inter-regional cooperation;

## *3. Innovation-related infrastructure*

This involves fields like technology, training, employment and emission reduction. Commercial and various services locations and measures on employment also receive support;

## *4. Support for particular target groups*

Support under this priority focuses mainly on employment measures. This includes initiatives for training, employment of women, and the integrated development of disadvantaged urban areas.

The total costs of the program amounts to € 3.9 mrd, of which the EU Structural Funds provide about € 1.9 mrd.

## *LEADER+*

The LEADER+ programme for North Rhine-Westphalia aims to strengthen rural areas as economic, living and recreation area, to improve the qualifications of people living in these areas (particularly women, young people, socially disadvantaged groups) and to preserve and regenerate its natural resources. For the period 2000-2006 the programme will support about 3 Local Action Groups. During the period 2001-2006, total expenditure under the programme is € 13.7 million. This includes an EU contribution of € 5.7 million and a contribution of € 2.3 million from the private sector (LEADER+, 2002).

## *INTERREG*

In general the regional development program Interreg stimulates cross-bordered cooperation and cooperation between national, local and regional authorities. It subsidises two programmes that concern North Rhine-Westphalia:

1. Interreg III A Euregio Rhine-Waal
2. Interreg III B Euregio Maas-Rhine

The Euregio Rhine-Waal consists of the Dutch provinces Limburg, Brabant and Gelderland and the German Land North Rhine-Westphalia. The total budget amounts to € 7.15 million a year of which Interreg provides € 4 million (56%). These funds contribute to social, sports and cultural activities and initiatives (Euregio Rhine-Waal, 2002).

Interreg also stimulates the economic and social integration within the Maas-Rhine area in order to utilize all available human, natural and economic resources optimally. The Maas-Rhine area consists of the Dutch province Limburg, the Belgian provinces Luik and Limburg, and the German-speaking community and the German areas Aachen and Trier (Kreise Bitburg-Prum and Daun). The total budget amounts to € 71.9 Mio. of which Interreg provides € 35.7 Mio (Euregio Maas - Rhine, 2002).



### *National rural programmes*

For an overview of national rural programmes: see Section 5.2.

## **11.3 Assessment**

The RDP for North-Rhine Westphalia addresses three key priorities:

1. improvement of the production and marketing structure in agriculture;
2. measures for rural development;
3. measures addressing agri-environment, compensation and forestry.

In Fig. 11.3 we have classified the planned RDP measures according to these priorities. Below we will briefly discuss these measures and assess whether the proposed measures contribute to rural development priorities.

Rural development priorities	Planned measures in RDP
1	a1, b1, c1, g1, l1, m1 (26% of the budget)
2	o1, p1, q1 (9% of the budget)
3	e1, f1, h1, i1, k1, t1 (65% of the budget)

*Figure 11.3 Planned RDP measures according to the rural developments priorities in North Rhine-Westphalia*

In total, about 26% of the total expenditure is allocated to the improvement of the production and marketing structure in agriculture. About 9% is allocated to the stimulation of the rural development and by far the greatest amount (65%) is allocated to measures addressing agri-environment, compensation and forestry.

### *Key priority 1*

In order to improve marketing and production structures in agriculture the following objectives are formulated:

1. creation of internally competitive business structures;
2. improvement of working and production conditions with special consideration on animal welfare and the environmental protection;
3. meeting the strongly growing demand by consumers for food grown under environmentally sustainable and hygienic conditions that take into account also aspects of animal welfare;
4. opening up new income opportunities (renewable raw materials, rural tourism) to make businesses sustainable in the middle and long term;
5. further training and education, particularly in production of food that is safe from the point of view of consumer's health as well as environmental protection and nature protection.

These objectives are addressed by the following measures:

- a1. investment in agricultural holdings in order to adjust to changing circumstances;
- b1. setting up of young farmers;

- c1. training to increase knowledge, abilities and skills of farmers;
- g1. improving processing and marketing of agricultural products to increase the competitiveness of producers and processors of agricultural products;
- l1. setting up of farm relief and farm management services to exchange know-how, experiences and information;
- m1. marketing of quality agricultural products.

In total 26% of the financial means of the RDP are reserved for this key priority. This concerns an amount of € 231 million. € 126 million is reserved for the improvement of farm structures through investments in agricultural holdings. Assuming a subsidy of about € 10,000 per farm, about 20% of the farms can receive this subsidy. The budget reserved in the RDP for the improvement of processing and marketing of agricultural products is relatively large, given the total amount of € 77 million.

### *Key priority 2*

To stimulate rural development in North Rhine-Westphalia the following objectives are formulated:

- 1. improving infrastructural conditions with simultaneous sustainable preservation of natural resources as the precondition for a competitive agriculture and forestry and attractive rural surroundings.
- 2. facilitating and strengthening independent regional development;
- 3. stewardship of the countryside as residential, work and leisure areas;
- 4. protecting highly populated areas in the densely urbanised regions of the North Rhine-Westphalia from further increases in population density;
- 5. improving management skills of farm managers including non-agricultural income diversification to support the economic development of the rural areas.

These objectives are addressed by the following measures:

- o1. renovation and development of villages and protection and conservation of the rural heritage so that these areas can function as residential, work and leisure areas;
- p1. diversification of agricultural activities and activities close to agriculture to provide multiple activities or alternative incomes and maintain family businesses;
- q1. agricultural resource water recourse management to reduce the use of water.

About 9% of the total budget is reserved for the stimulation of rural development. This involves an amount of € 75 million. This indicates the relatively low importance that is given to this key priority in the RDP of North Rhine-Westphalia. The larger part (€ 62 million) of this total amount is reserved for renovation and development of villages and protection and conservation of the rural heritage (measure o). This amount is not sufficient for large-scale improvements, keeping in mind that it is used to renovate or preserve former farm buildings, improve traffic situations and establish green areas. Undoubtedly, the RDP may contribute to some achievements in the field of rural development, but only to a limited extent.

### *Key priority 3*

By addressing the priority about agri-environment, compensation and forestry it is hoped to achieve:

1. preservation and further development of extensive and environmentally friendly methods of production;
2. extending natural habitats in areas singled out for enhanced nature protection;
3. preservation, maintenance and re-establishment of sensitive habitats of endangered animals and plants;
4. prevention of soil erosion in areas under enhanced threat;
5. preservation of genetic diversity through support for raising breeds of domestic animal threatened with extinction and the cultivation of cultivars worthy of protection;
6. rewarding efforts of farmers who protect the environment and maintain natural habitats;
7. compensation for effects of constraints upon agricultural exploitation that go beyond good agricultural practice;
8. improving the economics and ecological situation of acreage under forest;
9. improving conditions governing the processing and marketing of forestry products.

These objectives are addressed by the following measures:

- e1. less favoured areas and areas with environmental restrictions;
- f1. agri-environment to protect the environment and develop the landscape;
- h1. afforestation of agricultural land;
- i1. other forestry measures (forestry itself and marketing of forestry products);
- k1. reparcelling;
- t1. protection of the environment in connection with agriculture, forestry and landscape conservation as well as the improvement of animal welfare.

By far the largest amount of the total RDP budget is reserved for this priority (65%). Of the financial means for this priority, the largest part is intended to support agri-environmental measures (30% of the budget). Assuming an annual premium of € 250 per hectare this premium can support agri-environmental measures on about 169,000 ha. Given the total agricultural area of 1.5 million ha in North Rhine-Westphalia, this is about 11% of the total agricultural area. About € 117 million is reserved for measures concerning less favoured areas. Given the fact that 21% of the utilised agricultural area is classified as LFA, this budget allows for a moderate annual hectare premium of about € 60.

#### **11.4 Concluding remarks**

The region North Rhine-Westphalia is the base of Germany's economic power. It comprises the Rhine-Ruhr area with a highly diversified industry and it was home to the provisional federal capital Bonn from 1949 to 1999. The region is highly urbanized: 30 of Germany's 84 largest cities are located North Rhine-Westphalia and its population density

of 527 inhabitants per km<sup>2</sup> is about twice the average of the other German states. Industrial development and intensive agricultural production have harmful effects on the environment, such as the pollution of air, soil, ground and surface water. Specific concerns in this field are the pollution of the Rhine and the adverse effects of large-scale irrigation on the scarce supply of ground water. Within the RDP the objective of conserving the agri-environment is a top priority, absorbing about two thirds of the financial means. This approach seems a suitable response to the region's environmental concerns.

## 12. Case study Flanders

### 12.1 Description of the case study region

#### *Function of the region*

Flanders is one of the oldest industrialised regions in the north-western part of the European continent. As early as in the Middle Ages, a solid economy based on manufacturing and trade of textiles was established, in which the individual towns (Ghent, Bruges, etc.) dominated the region. In fact, the concentration of population in the cities at that time was unique in Europe and only comparable to a few regions in medieval Italy (Blom and Lamberts, 1993).

Obviously, in the course of time, changes have taken place in the relation between the countryside and the urbanised locations, according to economic and political development. Nevertheless, Flanders has retained an urbanised character, even in the countryside, up to the present day. No location in Flanders is at a larger distance than approx. 40 km away from a city of at least 50,000 inhabitants (and often much larger)<sup>1</sup>. The distance to the nearest city of (over) 300,000 (Brussels<sup>2</sup>, Antwerp, Ghent, Liège, Lille (Fr.)) is approx. 60 km. Correspondingly, the population density is 438 inh./km<sup>2</sup> or a factor 2.6 above EU average.

The countryside of Flanders, although rather flat in general, shows a variety in landscape. The coastal zone in the west consists of 'polders' reclaimed from the sea, which have a very fertile soil. Going eastwards, one encounters plains (in which an isolated area with 'mountains' peaking up to 156 m, the highest point of Flanders), the central urbanised triangle Antwerp-Ghent-Brussels, the more sandy Campine plateau and finally the valley of the River Meuse. Altogether, Flanders covers 13,500 km<sup>2</sup>, or 40% of Belgian territory (Rural Europe, 2000; Table 9.1).

Despite the urbanised character, 41% of the territory of Flanders is used for agricultural production (Rural Europe, 2000). Nevertheless, the region must be considered primarily as a place to live and to work, not only for inhabitants of the cities (60% of the population, RDP Flanders, 2000), but also for those living in rural parts (40%) as they find jobs mainly in the urbanised areas, including the industrial plants near the cities.

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<sup>1</sup> LEI, own calculations.

<sup>2</sup> Brussels itself, although completely surrounded by Flemish territory, does not belong to Flanders or Walloon, but is a separate region.

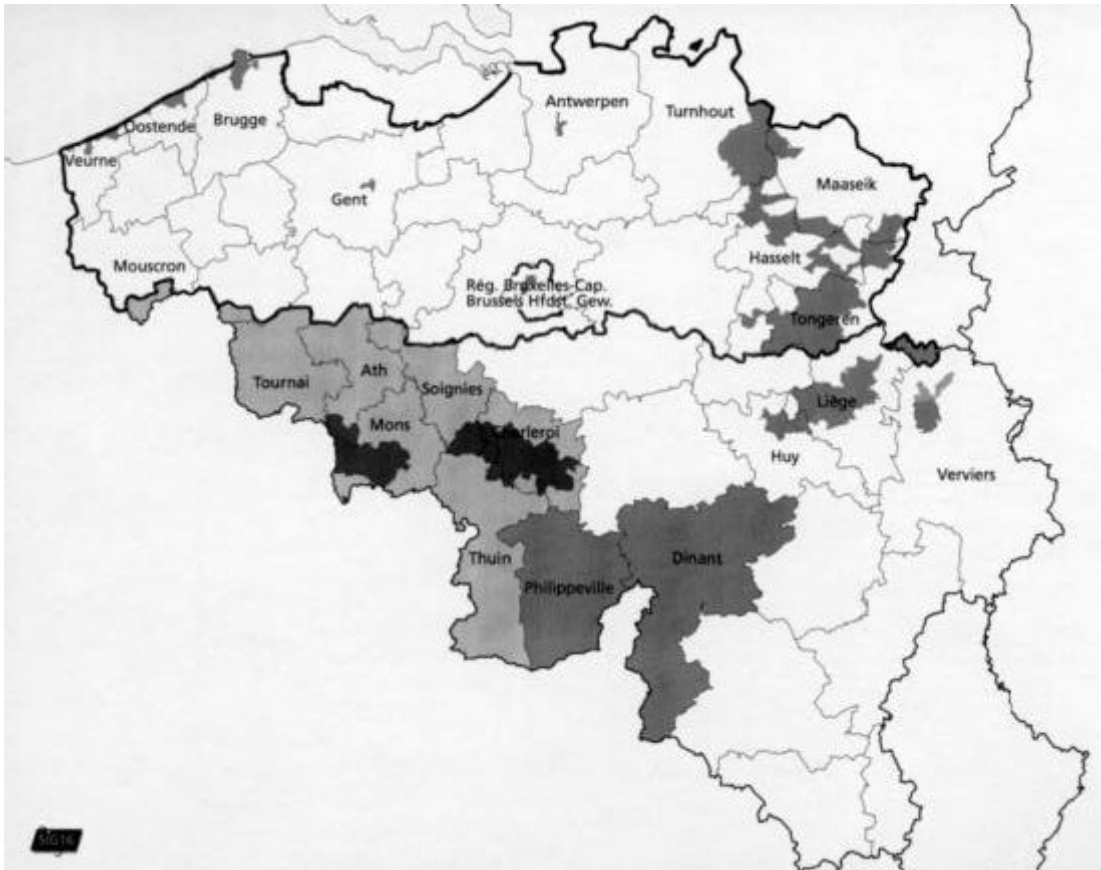


Figure 12.1 Map of the region  
 Source: European Commission, DG Regiogis.

### *Natural and cultural heritage*

Original nature is scarce in Flanders. In fact, present 'natural' areas are in fact semi-nature. A further fragmentation of those nature values is considered as a serious problem. Indeed, both for nature values and ecological systems, loss of scale is a major concern. Progressive fragmentation of areas as a consequence of monosectoral measures (transport, agriculture, housing, industry) is an irreversible process by which certain thresholds can be crossed, below which values can be lost permanently (RDP Flanders, 2000).

Conservation of natural heritage has, apart from some initiatives of private persons, a relatively short history in Flanders. The five first regional landscapes were established in 1992 as pilot projects (MiNa-Raad, 2001). At the moment, eight regional landscapes have been founded as cooperations between regional and local governments, covering about one third of Flanders' territory (400,000 ha). Several regional landscapes are in the process of formation. The legal basis for regional landscapes has been laid down in the Decree on Nature Conservation (Decreet Natuurbehoud, 21 October 1997).

A major problem in the formation of national parks is the fragmentation of property in the hands of a large number of private owners. For example, 75% of wood area is private property. At the moment, about 100 nature parks are owned and managed by the

Vlaams Gewest (Flemish Regional Government), with a total area of 6,500 ha (MiNa-Raad, 2002), the largest parks being the Kalmthoutse Heide and the Mechelse Heide. Together with more than 8,000 ha of nature parks administered by a limited number of admitted organisations, the total area of nature parks amounts to approximately 1% of the territory of Flanders. In the future, an increase is foreseen in nature and conservation area (from 112,000 ha<sup>1</sup> (8.3% of the territory) in present plans to 150,000 ha (11.1%) in 2007, RDP Flanders, 2000).

Rare biotopes are found in heather and pools. About 275,000 ha (20.3% of the territory) is indicated on the map of Biological Values (Biologische Waarderingskaart) as valuable or very valuable. The implementation of the Wild Birds Directive has led to the designation of 23 zones with a total area of 100,000 ha (7.4% of the territory, Kuijken, 1999, Kuijken *et al.*, 2001). Specific protection measures and monitoring programs have to be developed. With respect to the Habitat Directive, the situation in 2001 comprises 38 zones, with a total area of slightly over 100,000 ha<sup>2</sup>. Five areas have been defined as wetlands of international significance (Ramsar Convention) (RDP Flanders, 2000). It must be noted, that implementation of the Wild Birds Directive and the Habitat Directive is rather complicated and still in progress. Although an amendment of the Decree on Nature Conservation has been proposed to the Flemish Parliament, the legal basis is not yet uniform and possibly not complete (Backes and Rotmeijer, 2002). Some Implementing Orders, notably concerning the Wild Birds Directive and the Habitat Directive, have their legal basis in old national legislation, although implementation and enforcement is at the moment the responsibility of the Flemish Government.

Cultural heritage, as a contrast to natural heritage, is concentrated mainly in the cities. Medieval and Renaissance paintings, religious and secular architecture and prestigious town building dating from eight centuries or more form the background of a rich cultural tradition up to the present day.

### *Agriculture*

The share of agriculture in total employment in Flanders is 2%, which is close to the average of most urban regions (Table 12.1; see also Table 2.6). Agricultural employment declines at a rate of almost 2% per annum. Although livestock farming is the largest sector with 39% of the farm holdings, mixed farming is traditionally relatively important (22%), as well as crops and horticulture (together 28%). Flanders has specialized in products and branches where no EU or light market regulations exist, such as horticultural products, pigs and poultry. For example, only 2% of the farms produce the regulated cereals, oilseed and protein crops. In total, 28% of the total agricultural production value is directly and substantially subject to the Common Agricultural Policy regulations (1996 data, Centrum voor Landbouweconomie, 2000)

Farming is soil and capital intensive and highly productive in Flanders: on a relatively small average of 14.2 ha per holding, a gross margin of 3.3 ESU/ha is realized,

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<sup>1</sup> Excl. 43,000 ha of forest.

<sup>2</sup> With an overlap of 37% with the Wild Birds Directive zones.

which is 75% above the average of even the most urban regions in the EU. No part of the region is considered a LFA.

A typical characteristic of agriculture in Flanders, is the fragmentation of cultivated area (RDP Flanders, 2000). As a consequence of urban growth and terminated agricultural activity, many farms became partly or completely encapsulated by other economic activities or in residential areas or were otherwise fragmented, for example by infrastructure development.

Table 12.1 Some characteristics of the agricultural sector in Flanders

Share agriculture in total employment, 1999 (%)	2
Growth agricultural employment, 1989-1999 (% p.a.)	-1.9
Share LFA in utilised agricultural area, 1997 (%)	0
Share of farm holders with other gainful activity, 1997 (%)	16
Share of part time farm holders, 1997 (%)	39
Utilised agricultural area per agricultural holding, 1997 (hectares)	14.2
Standard gross margins per agricultural holding, 1997 (European Size Units)	46.8
Standard gross margins per hectare utilised agricultural area, 1997 (European Size Units)	3.3
Total number of farm holdings	44,470
Specification of EU farming types (% of total):	
Specialist field crops	12
<i>of which:</i>	
- specialist cereals, oilseed and protein crops	2
- general field cropping	10
Specialist horticulture	11
Specialist permanent crops	5
Specialist grazing livestock	39
<i>of which:</i>	
- specialist dairying	12
- specialist cattle-rearing and fattening	16
- cattle-dairying, rearing and fattening combined	5
- sheep, goats and other grazing livestock	6
Specialist granivores	10
Mixed cropping	3
Mixed livestock holdings	8
Mixed crops-livestock	11

Source: Own calculations based on Eurostat, Luxembourg.

The main problems of the agricultural sector in Flanders are related to the intensity and the urbanised setting (RDP Flanders, 2000):

- a strong competition for a limited amount of space leading to increasing land prices;
- fragmentation of farmland and arable area;
- spatial dislocations.



These problems are added to more general challenges arising from social requirements in the fields of environment, nature, animal welfare, food quality, etc.

### *Tourism*

The main tourist attractions of Flanders are the coastal zone and the cities of culture (Antwerp, Ghent, Bruges, Mechelen, Leuven, etc.), although the market share of the coast is decreasing. More than one third (36%) of the 17,5 million nights spent by tourists in Flanders in 2000 (NIS, 2001) are still in the 60 km long coastal strip. On the other hand, 32% of the nights were spent in the Campine area, a more rural area in the north and eastern part of Flanders. Tourism in Flanders, in particular holidays for more than a few nights, is largely a domestic activity. There is a trend of increasing rural tourism, with accents on nature and regional heritage (RDP Flanders, 2000). This development is stimulated by the Government, stressing competitiveness and quality.

### *Other economic activities*

The largest economic sector in Flanders is the services sector which has a share of 69% in total employment (1999 data; APS, 2001). Slightly more than half of it (37%) are commercial services (trade, transport, financial sector), the remaining part being public services. Industry has a share of 30%. As a relic of the textile industry, which has dominated the production structure for centuries, the carpet industry can be considered as a regional specialisation (although the metal sector is by far the largest sector as measured in number of jobs). An open investment and business climate has contributed to a relatively high proportion of foreign or multinational firms (CEC, 1993a).

Flanders has a well established processing industry of agricultural products, with an employment of 32,000 or 7% of total industrial employment (1997 data; RDP Flanders, 2000). The largest sector is meat processing and meat products (44% of 32,000), followed by dairy products (19%) and canning (17%).

### *Environmental concerns and water concerns*

Maintaining the quality of water (surface water and ground water) is one of the most serious environmental problems in Flanders. In 1997 only 11% of the surface water complied with standards laid down by the Government (VLAREM, 1995). In particular pollution by nitrates forms a serious problem, with an annual deposit of 92 million kg, of which agriculture has a share of two thirds. Implementation of the EU nitrate directive is not without problems, although the Flemish Government has committed itself to the realisation of stringent legislation concerning this point. A second thread for water quality is the use of pesticides. Although the increasing tendency has stopped about 1992, further reductions must be implemented (up to 50% in 2005, RDP Flanders, 2000). Finally, the discharge of waste water from purification installations is considered as a drawback for a sustainable water cycle.

Another important environmental concern is air pollution. Flanders as a whole has much industrial activity, traffic and intensive farming (notably pigs). Consequently, SO<sub>2</sub>,

NO<sub>x</sub> and NH<sub>3</sub> charges are high and natural biotopes suffer from acid rain. Although total emission has decreased (by 49% between 1980 and 1997), the NH<sub>3</sub> problem is still considerable and reduction seems hard to achieve. Instruments which are foreseen to contribute to a reduction of emission are a voluntary reduction of livestock, better feeding technologies, emission low spreading of manure, technical adaptations in pig houses and better storage facilities and processing of manure.

Natural fertilizers are also a heavy burden on soil. The production of manure on agricultural farms (pigs, poultry) is too large to spread on Flanders territory without violating the nitrate standard. Apart from measures mentioned above, a system of a mineral balance book-keeping at parcel level is seen to be necessary (RDP Flanders, 2000).

With respect to agriculturally produced environmental burden, the Flemish Government has developed a policy along three lines in the Manure Activity Plan (MAP-II/ (Mestactieplan II of January 2000) (RDP Flanders, 2000):

- reduction at the source (e.g. reduction of the number of animals, mineral balances);
- better processing (evaporation, export);
- marketing (e.g. natural fertilizers in stead of chemical fertilizers).

### *Development priorities*

The Rural Development Plan for Flanders 2000-2006 addresses six priorities:

1. maintenance and improvement of the diversity and the current quality of rural areas in Flanders;
2. development of an integrated policy centred around the sustained development of agriculture, horticulture, forestry, nature and the environment;
3. promotion of quality produce, quality management and monitoring systems as well as a system to establish communication between the producer and the final consumer;
4. promotion of the production process centred around the protection of the natural and rural environment and animal welfare;
5. promotion of diversification and differentiation in the supply of produce and services in rural regions, as well as through offering training in the agricultural, horticultural and forestry sphere;
6. maintenance of the work force and stimulation of employment in rural regions as well as the maintenance of the multifunctional role of Flemish rural areas.

## **12.2 Rural development policy and related measures**

### **12.2.1 Rural Development Plan**

An overview of the proposed measures in the RPD for Flanders is presented in Fig. 12.2.

RDR measure	no.	Planned measures in RDR
1 art. 4-7		<b>(a) Investment in agricultural holdings</b>
	a1	<p>The objective of the measure is to support investments with a long-term impact, such as diversification of activities, protection and improvement of the environment, hygiene and animal welfare (beyond minimum standards), sustainable employment, improvement of living and working conditions, foodstuffs that conform to food hygiene rules, limiting productivity, etc. The investments are directed towards a qualitative improvement in production and, as a general rule, envisage a reduction in the capacity of the animal sector.</p> <p>The RDP presents four types of investment:</p> <ol style="list-style-type: none"> <li>1. investments centred around the creation of multifunctional, durable and/or organic agriculture;</li> <li>2. investments centred around the conversion of agricultural holdings;</li> <li>3. investments in immovable property, centred around carrying out structural improvements;</li> <li>4. other investments centred around carrying out structural improvements.</li> </ol>
2 art. 8		<b>(b) Setting-up of young farmers</b>
	b1	The measure seeks to facilitate the renewal of agricultural holdings and their recovery in a sustainable manner. The economic viability criteria, minimum standards concerning the environment, hygiene and animal welfare, and the conditions linked to professional qualification have to be satisfied. The age limit of 40 must be met at the time of the decision to grant aid.
3 art. 9		<b>(c) Training</b>
	c1	<p>Four types of training are supported:</p> <ol style="list-style-type: none"> <li>1. conventional farming: courses, visits and demonstrations of sustainable farming techniques;</li> <li>2. organic farming: training and specific information on conversion to organic farming;</li> <li>3. forestry;</li> <li>4. marketing of quality farm produce.</li> </ol>
5 art.13-21		<b>(e) Less favoured areas and areas with environmental restrictions</b>
	e1	This measure only refers to areas subject to environmental constraints as Flanders does not have LFA. The plan classifies 8500 ha of such areas with environmental constraints, of which about the half corresponds to the Natura 2000 network. The main aim of the measure is limitation of inputs, like zero fertilisation, grazing of less than 2LU/ha, all supplementary fertilisation forbidden and a total ban on health products.
6 art.22-24		<b>(f) Agri-environment</b>
	fl	<p>This measure seeks to encourage agri-environmental practices in farming that go beyond good agricultural practices. Commitments are valid for a period of five years. Eleven schemes are distinguished:</p> <ol style="list-style-type: none"> <li>1. soil coverage during winter (objective: limiting erosion and leaching of nutrients);</li> <li>2. mechanisation of weeding (objective: popularisation of little-used methods and limiting the use of atrazine);</li> <li>3. limiting plant health products and fertilisation in the ornamental plant sector;</li> <li>4. keeping of endangered animal breeds and old species of varieties and crops;</li> </ol>

		<p>5. management of meadow birds (objective: protection of nests and chicks);</p> <p>6. field border management (objective: improvement of biodiversity in protected strips);</p> <p>7. restoration, development and maintenance of parts of the countryside (objective: restoration and improvement of the ecological function of parts of the countryside);</p> <p>8. management of 'buffer zones' (objective: limiting inputs (fertiliser and plant health products) on plots of land bordering nature areas to prevent leaching in the latter);</p> <p>9. botanical management (objective: development of meadows with a high botanical value);</p> <p>10. limiting fertilisation beyond the Nitrates Directive (objective: protecting water against nitrates and eutrophication);</p> <p>11. conversion of pig farming into organic farming (objective: reducing the number of animals and promoting organic farming).</p>
7 art.25-28		<b>(g) Improving processing and marketing of agricultural products</b>
	g1	<p>The measure's main objective is to improve the added value of the products, in particularly through actions such as environmental protection, improving and monitoring quality, improving animal welfare, adapting production to cater to markets, developing new outlets, applying new technologies and encouraging of innovative investments, improving the presentation of products, and optimal use of by-products and waste.</p> <p>All schemes (except in the organic sector) envisage the 'consolidation' of the sectors without an increase in capacity. Emphasis is placed on non-productive investments in favour of the environment and which promote the welfare of animals and hygiene (beyond minimum standards).</p>
8 art.29-32		<b>(h) Afforestation of agricultural land</b>
	h1	The plan specifies 10 categories of tree species for plantation. The plantation can, if necessary, also include an understory, a border and a living fire break.
		<b>(i) Other forestry measures</b>
	i1	Support for the establishment of associations of forest holders in order to improve the economic and ecological management of sustainable forests, the improvement of alternative sources of income and the improvement of complementary recreational usage.
	i2	Support for investments for public and private forest owners in order to improve the ecological and sustainable management of forests.
9 art.33		<b>(m) Marketing of quality agricultural products</b>
	m1	<p>The products concerned are farm, regional and organic products, produced by small-scale farm production. The measure's main objective is:</p> <ul style="list-style-type: none"> <li>- to develop new outlets (inventory, public awareness and market study);</li> <li>- to optimise marketing (information and harmonisation of sales outlets);</li> <li>- to ensure the quality and quality control of labels;</li> <li>- to develop alternatives sources of income for farmers.</li> </ul>
		<b>(n) Basic services for the rural economy and population</b>
	n1	This measure is aimed at the integration of vulnerable parts of the population in rural areas and supports specific projects in agriculture and horticulture, services in sparsely-populated areas, and specific projects for accommodation for vulnerable people.
		<b>(o) Renovation and development of villages and protection and conservation of the rural heritage</b>
	o1	Support is given for:

		<ul style="list-style-type: none"> <li>- the aesthetic and sustainable adaptation to the new needs of villages;</li> <li>- upgrading of village centres;</li> <li>- integration of cultural elements;</li> <li>- restoration of buildings.</li> </ul>
		<b>(p) Diversification of agricultural activities and activities close to agriculture to provide multiple activities or alternative incomes</b>
	p1	Under this measure support is given for: <ul style="list-style-type: none"> <li>- new technologies, which bring producers and consumers closer;</li> <li>- rural tourism;</li> <li>- recreational projects that demonstrate the qualities of rural life (leisure activities, space, health, handicrafts, folk music, etc.);</li> <li>- advice on converting to alternative activities;</li> <li>- farm tourism.</li> </ul>
		<b>(t) Protection of the environment in connection with agriculture, forestry and landscape conservation as well as the improvement of animal welfare</b>
	t1	Support is given for the restoration and development of village landscapes. In particular, attention is given to the relationship between villages and landscape and the integration of villages in the landscape.

Figure 12.2 Overview of the measures in the RPD for Flanders

In order to get some insight in priorities in the long list of proposed measures in the RDP, it is useful to examine the distribution of expenditure among the various measures. From Table 12.2 it can easily be seen that about one third of expenditure is used for transitory measures. These consist mainly of rents on subsidies on investment support. From the remaining budget, about 17% of the expenditure will be used for investments in agricultural holdings and 11% is reserved for both support for young farmers and for agri-environmental measures.

#### *Federal RDP for Belgium*

Apart from the RDP for Flanders, there is also a Federal RDP for Belgium. This federal plan is applicable for the whole territory of Belgium. It includes three priority measures (RDP, 2002):

##### 1. agri-environment

On the one hand, this measure aims at promoting organic agriculture. Farmers receive conversion or maintenance premiums per hectare under a five-year contract. The target is a share of 5% organic area in total agricultural land use by 2005. On the other hand, this measure is focused on stimulating the integrated production of pome fruit, only for the years 2000-2002.

##### 2. essential services for the rural economy

In the scope of this measure support for agricultural business management is given. Farmers get a premium when they call on and apply the services of an advisor on agricultural business management during a period of five years.

Table 12.2 Total public expenditure, 2000-2006 (mln. euro)

art. 1257/99	Measures	Sub-total	National top-up	Total	in % of total
4-7	a Investment in agricultural holdings	94.50	-	94.50	17.2
8	b Setting up of young farmers	58.09	2.31	60.40	11.0
9	c Training	28.96	-	28.96	5.3
10-12	d Early retirement	-	-	-	-
13-21	e Less favoured areas and areas with environmental restrictions	16.00	-	16.00	2.9
22-24	f Agri-environment	51.67	6.76	58.42	10.7
25-28	g Improving processing and marketing of agricultural products	27.85	-	27.85	5.1
29-32	h Afforestation of agricultural land	10.46	-	10.46	1.9
29-32	i Other forestry measures	20.99	1.39	22.37	4.1
	Article 29-32, total	31.45	1.39	32.84	6.0
33	j Land improvement	-	-	-	-
33	k Reparcelling	-	-	-	-
33	l Setting up of farm relief and farm management services	-	-	-	-
33	m Marketing of quality agricultural products	3.20	-	3.20	0.6
33	n Basic services for the rural economy and population	0.00	-	0.00	0.0
33	o Renovation and development of villages and protection and conservation of the rural heritage	16.49	-	16.49	3.0
33	p Diversification of agricultural activities and activities close to agriculture to provide multiple activities or alternative incomes	0.58	-	0.58	0.1
33	q Agricultural water resources management	-	-	-	-
33	r Development and improvement of infrastructure connected with the development of agriculture	-	-	-	-
33	s Encouragement for tourist and craft activities	-	-	-	-
33	t Protection of the environment in connection with agriculture, forestry and landscape con- servation as well as the improvement of animal welfare	16.49	-	16.49	3.0
33	u Restoring agricultural production potential damaged by natural disasters and introducing appropriate prevention instruments	-	-	-	-
33	v Financial engineering	-	-	-	-
	Article 33, total	33.55	-	33.55	6.1
	Other:				
	- Evaluations	0.00	-	-	0.0
	- Former accompanying measures	3.53	-	3.53	0.6
	- Transitory measures	188.60	-	188.60	34.4
	TOTAL a)	537.39	10.45	547.84	100

a) EU contribution is about 37%.

Source: Own calculations based on RDP for Flanders, Tables 9.2-3.

### 3. environmental protection demonstration projects

This measure concerns four projects:

- a. registration and optimisation of cultivation techniques and the management of organic farms;
- b. low-impact soil cultivation;
- c. the ensilage of cereal crops;
- d. the fight against potato disease in new varieties.

Table 12.3 Total public expenditure of the Federal Plan, 2000-2006 (mln. euro)

1 Agri-environment	64.31
2 Essential services for the rural economy	6.45
3 Environmental protection demonstration projects	3.05
Total *)	156.68

\*) Including the continuation of current measures (agri-environment, afforestation of farm land, investment in farms, setting-up of young farmers, early retirement, accountancy and management advisors).

Source: Federal RDP for Belgium

#### 12.2.2 Other rural development measures

##### *Objective 2*

Four regions in Flanders are eligible under objective 2 programs 2000-2006, comprising both urban and rural areas (Objective 2 Programme for Belgium, 2002). The main rural areas are:

- the Kustgebied/Westhoek area in the province of West Flanders (87,000 inhabitants);
- the 'Meetjesland' area to the north of Ghent in the province of East Flanders (67,000 inhabitants);
- Haspengouw in the province of Limburg;
- some parts of the 'Campine' area in the province of Antwerp.

Development of tourism is a common action field in all four regions, as far as the rural parts of the objective 2 regions are concerned (the Antwerp program, for example, is largely devoted to industrial zones and urban areas and only fractionally to rural development). Village innovation and improving living conditions are other measures mentioned in the programs; the Kustgebied/Westhoek program also aims at creating green areas protected from mass tourism, and the Haspengouw program mentions diversification of agricultural holdings. The total investment in the objective 2 regions is over € 550 million, of which only a (small) part is devoted to rural development (Table 12.4).

Table 12.4 Total public expenditure for Objective 2, 2000-2006 (mln. euro)

Objective 2 region	Total investments	of which EU Structural Funds assistance
West Flanders	117.9	33.0
East Flanders	59.1	13.6
Antwerp	135.8	47.0
Limburg	240.4	92.7
Total Flanders	573	198

Source: Objective 2 programme for Belgium, 2002.

### LEADER+

The LEADER+ program for Flanders foresees in the setting up of five Local Action Groups (LAGs). Its priorities are (LEADER+, 2002):

- use of new know-how and new technologies to make goods and services in rural areas more competitive;
- improving the quality of life in rural areas;
- enhancing the value of local products; improved access to markets for small units of production by means of collective measures;
- developing natural and cultural resources, and in particular areas of Community interest, as defined under Natura 2000.

The total funds available for LEADER+ during 2000-2006 amount to € 9.3 million, of which 45% is cofinanced by EU Structural Funds.

### INTERREG

The provinces of West Flanders, East Flanders, Antwerp and Limburg (B) form the Border Region Flanders-Netherlands ('Grensregio Vlaanderen-Nederland'), together with their counterparts in the Netherlands: Zeeland, Noord-Brabant and Limburg (NL). In this region the Interreg III A Program will be performed (a combination of the former regions 'Scheldemonde' and 'Benelux Middengebied'). Out of the 5 priorities, the following ones are relevant for rural development:

- tourism;
- environment, in particular water (total EU funds € 20.4 million).

The total investment of the program amounts to € 174.8 million, of which € 84.2 million is supported by EU Structural Funds.

The province of Limburg in Flanders is part of the Euregio Maas-Rhein, where the Interreg III A programme 2000-2006 is in action (the partner regions are the Dutch province of Limburg and parts of the German Länder Nordrhein-Westfalen). The program has 5 priorities, 3 of which are in particular related to rural development, notable:



- tourism;
- conservation of environment, nature and landscape;
- rural development.

Interreg support for the second and third measures together is € 10.4 million. The first measure is part of a larger priority. Furthermore, the coastal zone is part of the North Sea Interreg III C program.

### 12.3 Assessment

#### *Development priorities*

The Rural Development Plan for Flanders 2000-2006 addresses six key points for strategic rural development:

1. maintenance and improvement of the diversity and the current quality of rural areas in Flanders;
2. development of an integrated policy centred around the sustained development of agriculture, horticulture, forestry, nature and the environment;
3. promotion of quality produce, quality management and monitoring systems as well as a system to establish communication between the producer and the final consumer;
4. promotion of the production process centred around the protection of the natural and rural environment and animal welfare;
5. promotion of diversification and differentiation in the supply of produce and services in rural regions, as well as through offering training in the agricultural, horticultural and forestry sphere;
6. maintenance of the work force and stimulation of employment in rural regions as well as the maintenance of the multifunctional role of Flemish rural areas.

In Fig. 12.3 we have first classified these 6 key points into three key priorities, and as a next step, we have indicated the planned RDP measures according to these priorities. Below we will briefly discuss these measures and assess whether the proposed measures contribute to rural development priorities.

Rural development priorities	Planned measures in RDP
<i>Strengthening the agricultural and forestry sectors</i>	
key point 3	a1, b1, c1, g1, h1, i1, m1 (43.3% of the budget)
<i>Improving the competitiveness of rural areas</i>	
key points 1, 5 and 6	n1, p1 (0.1% of the budget)
<i>Preserving the environment and rural heritage</i>	
key points 2 and 4	e1, f1, i2, o1, t1 (21.7% of the budget)

Figure 12.3 Planned RDP measures according to the rural development priorities in Flanders

### *Key priority 1*

In order to strengthen the agricultural and forestry sectors, the following measures are proposed:

- investment in agricultural holdings;
- setting up of young farmers;
- training;
- improving processing and marketing of agricultural products;
- afforestation of agricultural land;
- other forestry measures;
- marketing of quality products.

The RDP gives the following specific impact indicators:

- support for investments in agricultural structures directed at sustainable development on 10,000 farms;
- setting-up support for 2000 farmers;
- 30,000 hours per year training, 15 demonstrations per year on sustainable production, advice on conversion to organic production on 2000 farms;
- support for improvement of processing and marketing of agricultural products at 100 firms;
- construction of 10,000 ha of forests on agricultural area;
- support for 18 associations of forest holders covering 40,000 ha of forests;
- 30% in 2003 and 50% in 2006 of farm products with a quality label, to protect regional products and improve the supply and marketing of organic products.

In the RPD about 43% (about € 237 million excluding private financing) of the financial means is reserved for this priority, which shows its importance. However, the ambitions are rather large, since at least 14,000 farms (over 30% of the total number) have to be affected. This implies that - when the whole budget would be spent on investment in agricultural holdings, setting-up of young farmers and conversion to organic production - on average about 2600 euro per farm is available. It has to be wondered whether this is sufficient to meet the objectives.

### *Key priority 2*

For improving the competitiveness of rural areas the following measures are proposed:

- basic services for the rural economy and population;
- diversification of agricultural activities and activities close to agriculture to provide multiple activities or alternative incomes.

The RDP gives the following specific impact indicators:

- an unspecified number of projects for vulnerable groups in rural areas;
- 3 projects on tourism, recreation and rural renewal.

Only 0.1% of the RDP budget (580,000 euro) is reserved for this priority, which reflects its marginal importance.

### *Key priority 3*

For preserving the environment and rural heritage the following measures are proposed:

- compensation for areas with environmental restrictions;
- agri-environment measures;
- other forestry measures;
- renovation and development of villages and protection and conservation of the rural heritage;
- protection of the environment in connection with agriculture, forestry and landscape conservation as well as the improvement of animal welfare.

The RDP gives the following specific impact indicators:

- zero-fertilisation and non-use of pesticides in areas with environmental restrictions up to 15,000 ha;
- at least one quarter of the used agricultural area are involved in one or more of the agri-environmental schemes;
- support for ecological management of one third of selected forests;
- subsidies for reforestation of 130 ha forest per year;
- support for public access for 50% of the forest area eligible under measure i2;
- 8 projects on upgrading village centres;
- 12 projects on the integration of villages in the landscape.

On the whole, 22% of the total financial means of the RDP are reserved for this key priority. This budget is sufficient for a compensation of about 100 euro per ha for agri-environmental measures on about a quarter of the agricultural area in use in Flanders during the programming period. So some optimism on the contribution of the RDP to the achievement of the key priority can be reflected here.

## **12.4 Concluding remarks**

Flanders is one of the oldest industrialized regions of Northwestern Europe and has a predominantly urban character. The region is primarily a place to live and to work. Farming is soil and capital intensive and highly productive: on a relatively small average of just over 14 ha per holding, a gross margin of more than 3 ESU/ha is realized, which is 75% above the average of even the most urban regions in the EU. Maintaining the quality of water is one of the most serious environmental problems in Flanders. Water pollution is due to industry, waste water and intensive agriculture. The measures of the RDP for Flanders are mainly targeted at enhancing the sustainability of agricultural structures and agricultural production as well as agri-environmental measures. Regarding the intensity of agricultural production and its related environmental problems, the RDP seems to be a suitable approach for the rural demands in Flanders. However, considering the relatively

moderate budget of the RDP, some doubts can be raised about the realization of its aims, in particular the improvement of the sustainability of agricultural structures and agricultural production.

## 13. Case study Lombardia

### 13.1 Description of the case study region

#### *Function of the region*

Lombardia is located in the middle-northern part of Italy. It is in the center of the Po valley and includes the city of Milan. The region counts nine provinces (24,000 km<sup>2</sup>, 9 million inhabitants) and stretches from the border from Switzerland in the north, the Lago Maggiore Lake and river Ticino in the west, the river Po more or less in the south and the Garda Lake in the east. Lombardia is divided by its relief in two more or less parallel zones: mountainous in the north (divided in Alps and pre-Alps) and plains in the south (divided into upland and lowland plains). The mountains reach altitudes of 2000 and even 3000 meters; they contain extensive areas of glacier and are sparsely populated. The mountains subside gradually through a series of hills to the plain. The upland plains consist of permeable, and consequently rather poor soils. The lowland plains, on the other hand, are well drained and have an efficient irrigation system. Due to this, these plains are very fertile and constitute one of the richest agricultural areas in Italy (CEC, 1993c).

The climate is mainly continental, with cold, snowy winters and hot summers, and a mean annual temperature variation of around 30°C. In the area of the great lakes the climate becomes milder. The winter is characterized by fog, and therefore loved by painters and writers.

The region's enviable position at the heart of communications in the north of Italy and with the remainder of Europe has encouraged its intense commercial and economic activity. Lombardia has two airports, and is crossed by a number of railways lines, autostrada's and other roads. The region is strongly urbanized with an average population density of 377 inhabitants per km<sup>2</sup> and is Italy's principal economic center, generating 20% of the gross national product (Regione Lombardia, 2002). The average income per inhabitant is over 20% above the EU average (see Table 9.2). In terms of social and cultural life, Lombardia also takes a leading position in Italy.

The nine provinces of Lombardia are affected in different ways by socio-economic and demographic factors in such a way that a virtual split can be perceived between the north, the south and Milan. During the last decade, total population has increased slightly in Lombardia with 0.1% p.a. (Table 9.1). However, in the south and in the most northern part close to the border with Switzerland population declined, whereas the Milan province experienced a population increase as a result of foreign immigrants. In the northern provinces (apart from the most northern mountainous area Sondrio), almost half of the population is working in the industrial sector (Italy and EU: 33%). Milan and Sondrio are heavily committed to the services sector. In the three southern provinces the agricultural sector is of more importance than in the other provinces (CEC, 1993c). Structural changes in employment have affected the composition of the labour supply: higher levels of

education, a substantial increase in female labour on the market, and the arrival of non-Community migrant workers. There is an increase in self-employment; especially in industry and the services sector. This is the result of the region's entrepreneurial tradition. The total employment in services is increasing and that in industry decreasing. Nevertheless, Lombardia remains an industry region in comparison with the national average, with the shift to the service sector very largely dependent on industry. The public sector is rather small (Regione Lombardia, 2002).

In the whole region, the unemployment rate is rather low. In each of the region's nine provinces activity rates are above the Italian average. The female activity rate is above the national average, and females in Lombardia have a greater tendency to remain active through the middle age ranges.



Figure 13.1 Map of the region

Source: CEC (1993c), Portrait of the regions; Volume 3: Portugal, Spain, Italy and Greece; Luxe mbourg.

### *Natural and cultural heritage*

Lombardia is well provided with lakes, canals and rivers, the latter all tributaries of the river Po. The water resources of the rivers have been fundamental for the industrial development of the region, due to the power supplied by hydroelectric power stations. The habitat of the formed lakes is also supposed to be of environmental importance. Along the rivers, riverlandscapes have been developed which preserve the original features of landscape and habitat. This is important in Lombardia, a region strongly affected by men (CEC, 1993c; Regione Lombardia, 2002).

Lombardia includes a great natural patrimony, which is easily subject to deterioration due to extensive urbanization and intense industrial development. Concern for the care for the environment in its various aspects started early: safeguarding ecological equilibrium and original natural habitats, the landscape and human environments as they have evolved through history. The Region of Lombardia has thus designated a series of nature parks and reserves, especially along rivers and in the mountains. A number of the parks and reserves are protected (Stelvio National Park, 2 state nature reserves, 20 regional nature parks, 33 regional nature reserves). There are also parks and reserves which are not specifically protected (6 regional parks, 25 natural reserves, about 25 local parks of common interest and 25 natural monuments). The two most important parks are:

- the Selvio National Park (a mountain park which extends into Trentino-Alto Adige and is linked to the Swiss park of Engadina; it is the largest park in Italy and includes many glaciers and protected animal species like deer, roe deer, chamois, steenboks and golden eagles);
- the Regional Park of the Ticino (a river park which includes centers of population which are rich in historical and artistic life like Pavia and Vigevano).

Although no exact figures of the total area of the nature parks and reserves are available, according to our own rough estimate approximately 10% of the total surface of Lombardia is nature park or nature reserve.

In the Convention on Wetlands in Ramsar (1977) 6 sites in the region Lombardia are designated as Wetlands of International Importance, with a total surface area of 3,930 hectare (i.e. Isola Boscone: 201 ha; Palude Brabbia: 459 ha; Palude di Ostiglia: 123 ha; Pian di Spagna-Lago di Mezzola: 1,740 ha; Torbiere d'Iseo: 325 ha; Valli del Minicio: 1,082 ha) (Ramsar, 2002).

In the scope of the Habitat Directive, there is a Po Valley Spadefoot Project on the protection of the *pelobates fuscus insubricus*, a rare kind of a snake reptile. The species is only recorded at some 15 locations in the Po Valley and in two regions of Piedmont and in Lombardia (Po Valley Spadefoot Project, 2002).

In the old centers of cities like Milan, Brescia and Pavia and others, many castles, fortifications, walls, churches and other buildings form important elements of historical and artistic heritage. During the last two centuries, much attention has been paid to restoration of these buildings. In the cultural and literal field, Lombardia was especially affected by Romanticism, a sign of a new sensibility directed at deepening the values of the self, society, history, and the real (CEC, 1993c).

### *Agriculture*

The agricultural area is 1.2 million hectares and covers about half of the total area of Lombardia. Only 2% of the total regional labour force is employed in agriculture (Table 13.1), although in the southern part this share is somewhat higher. On average the farm size amounts to 11 hectares (Italian average: 6 ha) and yields per hectare are 1.7 ESU (European Size Units; Italian average 1.3 ESU). On the southern plains agricultural production is rather intensive, whereas the mountainous conditions in the northern part of Lombardia result in a more extensive agricultural production. The main products are milk

(27%), cattle (17%) and pigs (14%). There are some typical regional agricultural products like cooked meats, wines and special cheeses.

Over two thirds of the farmers work part-time (Table 13.1). About 60% of the farms are involved in crop farming, of which almost one third in vineyards. Due to the varied environment (plain, hills, mountains), almost all crops typical of Western Europe are found in Lombardia. The most important crops are fodder crops, alternating with cereals, wheat and maize but also oats, rye and barley. In the province of Pavia, rice growing is prevalent. In some hilly areas wine growing is typical. The most appreciated wines are those of the Oltrepo Pavese, Franciacorta, the area of Lake Garda and the Valtellina. One third of the farmers are specialised in grazing livestock; of them about half in combination with fattening (mainly pigs). In Lombardia, livestock, dairy cattle, pigs and poultry are reared intensively, an activity that is of considerable importance. Processing plants, also in the form of cooperatives, are often attached to the large farms: they convert the animal and dairy products into hams, milk, butter and cheeses.

Table 13.1 Some characteristics of the agricultural sector in Lombardia

Share agriculture in total employment, 1999 (%)	2
Growth agricultural employment, 1989-1999 (% p.a.)	-4.6
Share LFA in utilised agricultural area, 1997 (%)	19
Share of farm holders with other gainful activity, 1997 (%)	15
Share of part time farm holders, 1997 (%)	70
Utilised agricultural area per agricultural holding, 1997 (hectares)	11.0
Standard gross margins per agricultural holding, 1997 (European Size Units)	19.1
Standard gross margins per hectare utilised agricultural area, 1997 (European Size Units)	1.7
Total number of farm holdings	100,870
Specification of EU farming types (% of total):	
Specialist field crops	36
<i>of which:</i>	
- specialist cereals, oilseed and protein crops	26
- general field cropping	10
Specialist horticulture	1
Specialist permanent crops	18
<i>of which:</i>	
- specialist vineyards	14
- specialist fruit and citrus fruit	3
Specialist grazing livestock	33
<i>of which:</i>	
- specialist dairying	9
- specialist cattle-rearing and fattening	4
- cattle-dairying, rearing and fattening combined	1
- sheep, goats and other grazing livestock	19
Specialist granivores	1
Mixed cropping	4
Mixed livestock holdings	1
Mixed crops-livestock	6

Source: Own calculations based on Eurostat, Luxembourg.



## *Tourism*

The mountains, valleys and lakes are a year-round tourist attraction, not only for Italians but for foreign visitors as well, particularly German, Swiss and Dutch. For all citizens of Lombardia, the mountains offer weekends skiing and summer walking. The lakes provide a peaceful escape from the rigorous of the Milanese winter, or an opportunity for a refreshing summer swim (Regione Lombardia, 2002).

## *Other economic activities*

Total employment by sector is given in Table 13.2. The region of Lombardia was one of the first Italian regions to industrialise. At present, the most technologically advanced manufacturing sectors are engineering products, metals chemicals, rubber, printing and plastics. Some of the most prestigious companies operate in Lombardia, even if there has been a considerable reduction in the amount of large industrial plants. There are many small and medium sized companies. The present tendency is one towards tertiarisation of urban areas, decentralisation of production processes and spread of small-scale entrepreneurs. Artisan activity plays an important role: engineering, wood and furniture, textiles and footwear and building are the most developed sectors. In the services sector, the most accentuated growth has been in the field of so-called 'evolved services' like financial, banking and I.T. activities and business linked to consultancy. Most of the companies specialised in these services are concentrated in Milan and surroundings, resulting in multi-functional, integrated technological poles of advertising agencies, design studios and show rooms of the most important stylists. Large enterprises with over 10,000 employees in Lombardia are State Railways, Post and Telecommunication, IBM Italia, Standa and La Rinascente (both Retail distribution), Urban Transport Milan and Fiat. Milan is also the place for a large number of national and international Fairs. The traditional Fair has been transformed into a trade of 'events' which inform about products, processes, and technologies (CEC, 1993c; Regione Lombardia, 2002).

*Table 13.2 Employment by sector of economic activity in Lombardia, 1998 ( x 1000)*

	Agriculture	Industry	Services	Total
Employees	29	1,291	1,473	2,793
Self-employed	75	261	623	959
Total	104	1,552	2,096	3,752
As % of total	3	41	56	100

Source: Regione Lombardia, 2002.

### *Environmental concerns*

The industrialization of the region, the intensity of agricultural production in some parts of Lombardia and the large population put a large pressure on the environment (CEC, 1993). First, air pollution is especially caused by gas from waste treatment, traffic exhaust and industry. Second, the quality of the water system is a major concern as Milan and most of the other cities do not have general sewage treatment plants for waste water of industries and population. Hence, nearly all polluted water flows directly into the water courses, canals and rivers (Po and the other rivers) and reaches the Adriatic Sea in the end. As a result, some rivers and canals are so seriously polluted that they look more like open sewers and wastetips. Third, the quantity-management of the whole water system is a problem. Private households, industry and agriculture use more and more water. Due to this increased demand, the average groundwater level is gradually lowered to a worrying extent. Finally, other main environmental concerns relate to manure surpluses. Many pig farms are located in the southern provinces, on the rubble walls of the hills. The manure causes problems for the water system and in the longer term for the proper water supply for the population as well. In the early 1990s, manure regulations were introduced in Lombardia: a farm with a density of more than 30 pigs per hectare must transport the surplus manure elsewhere. For that purpose, pig farms have to make an annual plan. In most cases, pig farms apply the surplus manure onto other parcels of land in a circle of 5 to 8 km (RPD, 1993:37).

### *Development priorities*

The Rural Development Plan for Lombardia 2000-2006 addresses the following priorities:

1. support for competitiveness of holdings and for development of the agri-food productive system;
2. agri-environmental policies and support for mountain areas and the forestry and stock farming sector;
3. integrated development of rural areas and improvement of rural housing.

## **13.2 Rural development policy and related measures**

### 13.2.1 Rural Development Plan

An overview of the proposed measures in the RPD for Lombardia is presented in Fig. 13.2.

RDR measure	no.	Planned measures in RDR
1 art. 4-7		<b>(a) Investment in agricultural holdings</b>
	a1	Support is given for investments with the following objectives: - to reduce production costs; - to improve and redeploy production in accordance with market demands; - to raise the quality of production, in order to adapt it also to Community

		<p>requirements on quality;</p> <ul style="list-style-type: none"> <li>- to preserve and improve the rural environment, hygiene conditions and animal welfare;</li> <li>- to promote diversification of the activity of the holding.</li> </ul> <p>Beneficiaries are agricultural holdings (individually or in association) which, before the support is granted, meet the requirements relating to economic viability, sufficient occupational capacity and compliance with the requirements on the environment, hygiene and welfare of animals.</p>
2 art. 8		<b>(b) Setting-up of young farmers</b>
	b1	Single premium for initial setting-up for young farmers aged between 18 and 40, and whose agricultural activity as a young farmer may not be less than 5 years. Young farmers must meet the requirements on economic viability, occupational skills and the minimum standards on the environment, hygiene and animal welfare within 3 years from the date of initial setting-up.
3 art. 9		<b>(c) Training</b>
	c1	Eligible schemes are short-term training activity, seminars, demonstration visits, re-training courses for technicians and seminars and demonstration visits for technicians. Courses and short courses which are part of normal (secondary and higher) farming and forestry teaching are excluded. Beneficiaries are farmers, family co-workers, agricultural workers, foresters, and technicians working in farming and forestry.
5 art.13-21		<b>(e) Less favoured areas and areas with environmental restrictions</b>
	e1	Compensatory allowances are given per hectare in less favoured areas, areas subject to environmental constraints and areas affected by specific handicaps. The aim of the scheme is to maintain the human presence in the territory by continuation of farming in marginal areas, whilst, in areas subject to environmental constraints, it is intended to stimulate the use of eco-compatible agricultural techniques. Beneficiary farmers and cooperatives have to continue the activity for at least 5 years from the date of the first payment and to adopt good agricultural practice, compatible with protection of the environment and conservation of the natural space.
6 art.22-24		<b>(f) Agri-environment</b>
	f1	There are six types of action:
		<p><b>1. integrated agricultural production</b></p> <p>The commitments for integrated production provided include the following obligations:</p> <ul style="list-style-type: none"> <li>- to alternate crops;</li> <li>- to fertilise on the basis of a plan for use of fertilisers which takes account of: the chemical and physical characteristics of the land; the kind of crops planted and the inputs of nutritional elements; the type of fertiliser used and the type of crop rotation;</li> <li>- to increase the effectiveness of use of organic nitrogen by 30% in good agricultural practice;</li> <li>- to reduce the use of 'chemical' nitrogen;</li> <li>- to manage the land with agronomic operations (ploughing, set-aside, winter grassing) to maintain the fertility of the land;</li> <li>- to use integrated-combat techniques in protection of the crops;</li> <li>- to monitor the effectiveness of farm machinery.</li> </ul> <p>The minimum area to qualify for the action is:</p> <ul style="list-style-type: none"> <li>- 1 hectare for grassland and 0.5 hectares for tree growing in the mountains or hills;</li> </ul>

		- 2 hectares for grassland and 1 hectare for tree growing in the plain areas.
		<p><b>2. organic agricultural production</b></p> <p>Adoption and maintenance of production as defined in Regulation (EEC) 2092/91. The minimum area qualifying for the action is one hectare for grassland and 0.5 hectares for tree growing. To be entitled to the support provided for organic animal husbandry, holdings must have a fodder area of at least 3 hectares and livestock of at least 6 LU.</p>
		<p><b>3. low-intensity plant production and the conversion of crop sowings to grassland</b></p> <p>Conversion of areas previously devoted to annual grassland to permanent meadow by the sowing or conservation of existing areas of meadow, pasture meadow and extensive pastureland.</p> <p>The beneficiary undertakes to comply with the following technical requirements:</p> <ul style="list-style-type: none"> <li>- to make hay at least once a year, if the areas under the intervention are not grazed, with a requirement to gather the hay;</li> <li>- not to use pesticides or herbicides;</li> <li>- not to have more than 1.4 LU/ha grazing on the pastures.</li> </ul> <p>The minimum area to qualify for the action is:</p> <ul style="list-style-type: none"> <li>- 1 hectare, for conversion of arable land into permanent meadow and/or floodable meadow (in the plain and hills), and for maintenance of permanent meadow and floodable meadow and meadow-pastureland, particularly in the mountains;</li> <li>- 10 ha for maintaining and managing low-intensity pastureland systems, particularly in the mountains.</li> </ul>
		<p><b>4. environmental improvement of the rural territory</b></p> <p>This action is directed at:</p> <ul style="list-style-type: none"> <li>- maintaining hedges and rows of trees;</li> <li>- introduction of new rows of trees and/or hedges;</li> <li>- maintenance of <i>bocage</i> and wooded <i>maquis</i>;</li> <li>- maintenance of firm and forestry water systems in the mountains, with interventions of restoration, consolidation and upkeep;</li> <li>- upkeep of springs by cleaning the outlet once a year and conservation and/or restoration of the well-head vegetation;</li> <li>- re-modelling the banks of artificial water courses (exclusively at district level);</li> <li>- converting arable land for crops or poplar forests into more natural <i>maquis</i>-clearings or wetlands;</li> <li>- establishing and conserving breeding and feeding areas for fauna in the collection ponds for irrigation water.</li> </ul> <p>To qualify for the action providing interventions of a linear nature, it is essential that action be taken on at least 100 metres; for all other interventions, the minimum qualifying area is 1 hectare.</p>
		<p><b>5. protection of local animal breeds threatened with extinction</b></p> <p>The local animal breeds threatened with extinction include the cattle Varzese ottonese, the sheep Pecora di Corteno, and the goats Capra orobica or di Valgerola, Capra frisa valtellinese or frontalsca, capra bionda dell'Adamello, capra Varzaschese. The stock farm must be situated in the areas of origin and diffusion specified by the region. It must also:</p> <ul style="list-style-type: none"> <li>- rear groups of animals of the breed under premium for five years without crossing, without reducing the total head count during that time;</li> <li>- comply with all the requirements set out in the Specifications for the Herd Book and the Stock Register for the relevant breed.</li> </ul>
		<p><b>6. environmental certification of the agricultural holding</b></p> <p>Aid will be allocated only to holdings that have actually obtained certification in</p>

		<p>accordance with the rule applied and, at the same time, take part in one of the actions 1, 2, 3 or 4 above.</p> <p>Compliance with good agricultural practice is essential for calculating commitments to beneficiaries, and is required for the entire holding, even if the holding is not entirely included within the action.</p> <p>Beneficiaries are agricultural holdings, individually or in partnership. For action 4 and 5, non-farmers can be allowed as well.</p>
7 art.25-28		<b>(g) Improving processing and marketing of agricultural products</b>
	g1	<p>The scheme is aimed at:</p> <ul style="list-style-type: none"> <li>- making innovative investments;</li> <li>- application of new production technologies;</li> <li>- improvement and control of quality;</li> <li>- guidance of basic production in accordance with the anticipated trend of the markets or encouragement to create new outlets for agricultural production;</li> <li>- improvement and rationalisation of marketing channels and processing, and protection of the environment;</li> <li>- improvement of presentation and packaging of products;</li> <li>- adoption of technologies for better use or elimination of by-products or waste;</li> <li>- improvement and control of hygiene and health conditions.</li> </ul> <p>Expenditure is allowed for financing:</p> <ul style="list-style-type: none"> <li>a. the construction and restoration of immovable property;</li> <li>b. the purchase of existing real estate property as part of a development project, in case it is cheaper than new investments;</li> <li>c. the purchase of new machinery, plant and tools, including computer programs;</li> <li>d. overheads up to a maximum of 12% of total investments.</li> </ul> <p>Interventions are allowed in the following sectors: meat, dairy products, vine-and-wine, fruit and vegetables, cereals, olive oil, flower-growing, animal feedstuffs, mushrooms and medicinal plants. Apart from fruit and vegetables, flower-growing, mushrooms and medicinal plants, investment aid is not granted where they lead to an increase in regional processing capacity.</p>
8 art.29-32		<b>(h) Afforestation of agricultural land</b>
	h1	<p>There are four types of intervention:</p> <ol style="list-style-type: none"> <li>1. reafforestation for protection and environmental purposes;</li> <li>2. plantations of timber-producing tree species;</li> <li>3. plantations of species of trees to produce biomass;</li> <li>4. plantations of fast-growing species of trees.</li> </ol> <p>Support is granted for planting, upkeep for the first 5 years (except plantations of fast-growing species), to offset the loss of income over 20 years (except plantations of fast-growing species). Local authorities and associations thereof are paid only planting aid. Local authorities may apply for support only for long-cycle plantations for reafforestation for protection and environmental purposes.</p>
		<b>(i) Other forestry measures</b>
	il	<p>These measures are intended to maintain, restore and enhance forestry resources; and to enhance the management and sustainable development of forestry and the extension of afforested areas. Twelve types of interventions are allowed:</p> <ul style="list-style-type: none"> <li>a. improvement of forest areas;</li> <li>b. nurseries of native species;</li> <li>c. adaptation and creation of forest roads and trails;</li> <li>d. improvement and rationalisation of processes for harvesting, processing and marketing products;</li> <li>e. promotion of forestry products, development of eco-certification and local timber products;</li> </ul>

		<p>f. promotion of associations of proprietors to manage forests;</p> <p>g. reinstatement and restoration of forest areas damaged by biotic and non-biotic disasters;</p> <p>h. interventions for the prevention, tracing and extinction of forest fires;</p> <p>i. environmental monitoring of forest resources;</p> <p>j. afforestation of non-agricultural land;</p> <p>k. maintenance and improvement of ecological stability;</p> <p>l. forest planning.</p>
		<b>(j) Improvement of land</b>
9 art.33	j1	<p>The objective of this measure is to maintain and improve the management and multi-functionality of the mountain-pasture system. The following types of intervention are allowable:</p> <p>a. Integrated interventions of extraordinary restructuring compatible with the environment (using traditional material), restoration of existing buildings and construction of new buildings, transformation and/or completion of the access road system and the construction of water- or power-supply systems, and agronomic improvement of pastureland;</p> <p>b. Creation of pilot and/or model mountain pastures;</p> <p>c. Consolidation of any erosion or subsidence found on the mountain pasture.</p> <p>The beneficiaries of the contributions are public or private, individual or associated proprietors of mountain pastures and pasturelands, and tenants with multi-year contracts. Interventions on mountain pastures subject to a constant loading may be financed, provided they are not concerned in application of other measures in the Regulation.</p>
		<b>(l) Setting-up farm relief and farm management services</b>
	l1	<p>Aid is granted for relief workers at farmers associations whose activities are aimed at creating new work openings for the unemployed and for young people looking for a first job, and giving young people setting up on a farm a standard of living and work suited to the new demands.</p>
		<b>(m) Marketing of quality agricultural products</b>
	m1	<p>Five types of intervention are permissible:</p> <p>a. Protection and marketing of agricultural products and foodstuffs with a geographical indication, a designation of origin, or a certificate of specific character (Regulations 2081/92 and 2082/92);</p> <p>b. Organisation of innovative systems of marketing;</p> <p>c. Design and production of trade marks, labels, packaging and novelties accompanying the product, exclusively for DOP, PGI, DOC, DOCG and IGT products and for organic-farming products;</p> <p>d. Definition of new specifications, verification and review of existing specifications;</p> <p>e. Implementation of programmes of certification and control.</p> <p>Eligibility requirements: products with a designation of origin or attestation of specificity, or produced using organic-agriculture techniques; products intended to initiate a procedure of recognition or to obtain a quality mark.</p>
		<b>(n) Basic services for the rural economy and population</b>
	n1	<p>Support is given for the provision of basic and specialist technical and economic information on how:</p> <ul style="list-style-type: none"> <li>- to implement services with the purpose of encouraging the introduction and spread of farming practices with a smaller impact on the environment, of stockfarming methods that improve the hygiene and welfare of animals;</li> <li>- to improve the competitiveness and the yield from holdings; to encourage the highlighting of products made using environmentally -friendly processes;</li> <li>- to encourage improvement in the quality of agricultural products and links among and integration within the various stages of production processes;</li> </ul>

		- to facilitate farm re-organisation processes aimed at productive diversification and at non-food products.
		<b>(o) Renovation and development of villages and protection and conservation of the rural heritage</b>
	o1	<p>Under this measure, five types of intervention are allowable:</p> <ol style="list-style-type: none"> <li>1. Reinstatement and/or restoration of small market towns, buildings and isolated constructions;</li> <li>2. Reinstatement and/or restoration of hydraulic constructions and buildings, irrigation ditches, canals and cascades of historical and environmental interest;</li> <li>3. Reinstatement and/or restoration of buildings, whether or not located on farms;</li> <li>4. Reinstatement of existing farm structures, to be exploited for cultural purposes, through the creation of museums, in association with dissemination activities;</li> <li>5. Design and creation of access routes.</li> </ol> <p>The measure aims at cultural or leisure purposes. Eligibility requirements: projects for the creation of routes or to reinstate a small town or isolated building are allowed provided they are of substantial architectural interest and are under the aegis of the Heritage Ministry and that public use and enjoyment are guaranteed. For public structures, interventions may also involve the inside, provided the building is open to the public. For private structures, only interventions on the outside are allowed. The measures applies only to Objective 2 areas.</p>
		<b>(p) Diversification of agricultural activities and activities close to agriculture to provide multiple activities or alternative incomes</b>
	p1	Intervention is aimed at the restoration and conversion of farm buildings and/or purchase of plant and tools for agri-tourism, teaching or leisure. The objectives of the measure are to provide alternative incomes and to diversify related activities in the rural environment of agricultural holdings and to encourage permanence of rural populations, particularly in marginal areas, through the creation of new work openings, in particular aimed at women.
		<b>(q) Agricultural water resources management</b>
	q1	<p>The objective of this measure is to pursue better management of water resources, having regard for the links with and effects on the environment, the rural territory and the agricultural landscape. The measure is restricted to the territory classified as requiring improvement in the regional legislation.</p> <p>The types of intervention permissible are directed at new projects and special maintenance operations for collective water systems, water savings, and creation and development of systems and application of innovative technologies for managing, using and protecting water resources.</p>
		<b>(r) Development and improvement of infrastructure connected with the development of agriculture</b>
	r1	This measure aims to maintain general conditions suitable for permanence of population in the least favoured rural (= mountain) areas. Types of intervention allowable are the conversion and/or construction of infrastructure such as roads between farms, field and forest tracks, rural water systems and power lines.
		<b>(t) Protection of the environment in connection with agriculture, forestry and landscape conservation as well as the improvement of animal welfare</b>
	t1	This measure allows for integrated projects for complete restoration, conservation and maintenance of the environment of degraded sites. The projects must also include a plan for use and enjoyment of the restored site. Any benefits derived from use of the site for teaching, demonstration or tourist purposes must be re-used for its maintenance and enhancement. The measure may be activated only in Objective 2 areas.
		<b>(u) Restoring agricultural potential damaged by natural disasters and</b>

		<b>introducing appropriate prevention instruments</b>
	u1	The objective of the measure is restoration of the vine-growing stock which suffered from a serious epidemic of golden flavescence. Support is given for carrying out phytosanitary treatment and grubbing-up and re-planting of vines which fell victim to the parasite.

Figure 13.2 Overview of the measures of the RDP in Lombardia

Table 13.3 Total public expenditure, 2000-2006 (mln. euro)

art. 1257/99	Measures	Total	in % of total
4-7	a Investment in agricultural holdings	113.574	14
8	b Setting up of young farmers	9.301	1
9	c Training	0.349	0.04
13-21	e Less favoured areas and areas with environmental restrictions	6.01	0.7
22-24	f Agri-environment	354.26	44
25-28	g Improving processing and marketing of agricultural products	89.021	11
29-32	h Afforestation of agricultural land	111.422	14
29-32	i Other forestry measures	15.43	2
	Article 29-32, total	126.852	16
33	j Land improvement	8.269	1
33	l Setting up of farm relief and farm management services	0.471	0.1
33	m Marketing of quality agricultural products	5.17	1
33	n Basic services for the rural economy and population	14.496	2
33	o Renovation and development of villages and protection and conservation of the rural heritage	2.592	0.3
33	p Diversification of agricultural activities and activities close to agriculture to provide multiple activities or alternative incomes	6.892	1
33	q Agricultural water resources management	35.97	4
33	r Development and improvement of infrastructure connected with the development of agriculture	12.4	2
33	t Protection of the environment in connection with agriculture, forestry and landscape conservation as well as the improvement of animal welfare	2.889	0.4
33	u Restoring agricultural production potential damaged by natural disasters and introducing appropriate prevention instruments	13.426	2
	Article 33, total	75.239	9
	Other:		
	- Evaluations	0.513	0.1
	- Transitory measures	2.98	0.4
	TOTAL a)	805.435	100

a) EU contribution is about 42%.

Source: Own calculations based on RDP of Lombardia, Annex.



In order to get some insight in priorities in the long list of proposed measures in the RDP, it is useful to examine the distribution of expenditure among the various measures. From Table 13.3 it can easily be seen that the emphasis in this RDP is on agri-environmental measures, to which 44% of the budget is dedicated. Forestry measures are the second most important item with a budget share of 16%. The third most important item in the budget is investment in agricultural holdings (share of 14%) and the fourth one is improving processing and marketing of agricultural products (11%).

### 13.2.2 Other rural development measures

#### *Objective 2*

Objective 2 areas for the programming period 2000-2006 amount to approximately 20% of Lombardia 's total surface area. Of the total costs of 510 million euro, the EU Structural Funds will contribute 200 million euro (Objective 2 Programme Lombardia, 2002). The general objective of the Objective 2 programme is aimed at raising and developing business and local communities, restoring employment and protecting the region's environment.

#### *LEADER+*

The plan for the LEADER+ programme in Lombardia (2000-2006) was approved by the EU Commission in November 2001. Regional authorities will select six Local Action Groups to implement the programme. The total funds available for LEADER+ during 2000-2006 amount to 24.1 million euro, of which 30% is cofinanced by the EU Structural Funds (LEADER+, 2002). Rural areas eligible for the LEADER+ programme cover about one third of the total area of Lombardia. The LEADER+ programme is geared in particular to innovation, integration and quality of the local production system, increasing the rural area's capacity to attract firms and new residents, turning to account an integrated utilization of the local heritage and organizing integrated communication to raise the profile of the rural areas and its resources.

#### *INTERREG IIIA*

The Interreg IIIA co-operation programme from 2001 till the year 2006 covers all those territories situated at the external frontier between Italy and Switzerland and involves a portion of the border that extends for 706 km of length in which more than 4 million people live (81% in Italy and 19% in Switzerland) (Interreg programme for Italy and Switzerland, 2002). The total funds available for Interreg IIIA during 2001-2006 amount to 74.4 million euro, of which 34% is cofinanced by the EU Structural Funds. The primary objective of this programme is to strengthen the process of cross border co-operation favouring the integration of the border areas, stimulating a balanced and long-lasting development in the respect of the safeguard of the delicate alpine ecosystems and increasing exchanges between the border areas both at a institutional and social level.

### 13.3 Assessment

#### *Development priorities*

The Rural Development Plan for Lombardia 2000-2006 addresses the following priorities:

1. Support for competitiveness of holdings and for development of the agri-food productive system;
2. Agri-environmental policies and support for mountain areas and the forestry and stock farming sector;
3. Integrated development of rural areas and improvement of rural housing.

In Fig. 13.4 we have classified the planned RDP measures according to these priorities. Below we will briefly discuss these measures and assess whether the proposed measures contribute to rural development priorities.

Rural development priorities	Planned measures in RDP
1	a1, b1, c1, g1, l1, m1, n1, u1 (31% of the budget)
2	e1, f1, h1, i1 (61% of the budget)
3	j1, o1, p1, q1, r1, t1 (8% of the budget)

Figure 13.4 Planned RDP measures according to the rural developments priorities in Lombardia

#### *Key priority 1*

The priority on support for competitiveness of holdings and for development of the agri-food productive system is aimed at preserving and increasing the present levels of productivity, and at maintaining the level of employment in the primary sector, in particularly that of women. By addressing this priority it is hoped to achieve:

- strengthening of the potentially competitive holdings, in terms of their physical and economic scale, and raising the occupational capacity of operators;
- relative increase in value added, including transfers, with a long-term stabilisation ranging from 65% to 70% of gross marketable production from agriculture;
- increased diversification of activities on the farm and of the openings for developing complementary activities in rural areas, particularly in the mountains;
- keeping present levels of productivity within the context of the natural upward trend in yields due to genetic advance, subject to agri-environmental requirements;
- stimulating production into non-surplus sectors, for food and also energy purposes;
- improvement in capacity for processing agricultural products, especially in associated form;
- raising the quality of agri-food production, for better protection of consumers.

On the whole, 31% of the total financial means of the RDP are reserved for this key priority. Given the more than 100,000 farms in Lombardia, the budget of 113.5 million euro allows for a moderate investment subsidy on modernisation of the farm structure of about 11,000 euro on 10% of the farms. The relatively large budget of 89 million euro for improvements in processing and marketing of agricultural products may contribute to the

realization of an increase in value added of agricultural products and the capacity for processing agricultural products.

### *Key priority 2*

The second priority of the RDP - agri-environmental policies and support for mountain areas and the forestry and stock farming sector - seeks to actively protect the land by means of a permanent human presence and the pursuit of the kind of farming that is needed to consolidate the land for the benefit of the whole community, less intensive use of farming areas, more oriented towards protection of the landscape in order to contribute to diversification with other activities that can supplement agricultural incomes. Effects expected from this priority are:

- reducing the expected loss of agricultural areas, through better protection of the land in the more fertile areas and halting the abandonment of land in the mountains;
- highlighting the existing forestry resources and increasing the production potential;
- stabilising population density in mountainous and less-favoured areas;
- extending the areas covered by agri-environmental measures, particularly through integrated and organic farming operations;
- maintaining biodiversity and protecting the traditional landscape, especially in the regions park zones.

In the RDP, over 60% of the total financial means are reserved for this key priority, which shows its importance. The largest part of these means (354 million euro) is reserved for agri-environmental measures. Assuming a premium of 250 euro per hectare, this budget is sufficient for supporting agri-environmental measures on 236,000 ha (about 20% of total agricultural area). The other main measure to achieve this priority is afforestation of agricultural land with a budget of 111 million euro. Given a premium of 7350 euro per ha for the afforestation of agricultural land for five years, the budget allows for the afforestation of over 150,000 ha of agricultural land, which corresponds to about 14% of the total agricultural area. Whereas the budget for both the agri-environmental measures and the afforestation of agricultural land can affect a considerable share of the agricultural area, the budget for less favoured areas is only moderate with 6 million euro. Given the fact that 19% of the agricultural area in Lombardia is classified as LFA, it seems clear that only a small part of LFA farmers can be supported by this budget.

### *Key priority 3*

The priority on integrated development in rural areas addresses the issue of preserving a social environment and exploiting productive systems characteristic of the territory. Expected effects are:

- turning round the substantial incidence of ageing of farmers, and reducing the number of proprietors aged over 55 to below 50% of total;
- reducing the differences in average per-capita income as between the urban and rural populations, and as between farming and rural populations;

- stabilising the percentages of active agricultural population in the rural areas, with particular attention to mountain and less favoured areas within Objective 2.

Less than 10% of the financial means of the RDP are reserved for this key priority, indicating its relatively low importance. The largest part of these means (36 million euro) is reserved for a better management of water resources in rural areas. Over 12 million euro is reserved for infrastructure in LFA, 8 million euro for the maintenance and management of mountain pastures and 7 million euro for restoration of farm buildings and agrotourism. Although the RDP may contribute to relief some needs in the scope of integrated rural development in Lombardia, it has to be kept in mind that the Objective 2 programme for Lombardia is also partly directed at integrated rural development.

### **13.4 Concluding remarks**

Lombardia is Italy's principal economic centre. Its location at the heart of infrastructural connections between the north of Italy and other parts of Europe has encouraged its intense commercial and economic development. Lombardia is strongly urbanized with an average population density of 377 inh/km<sup>2</sup>. Industrialization, intensive livestock production (especially in the southern part of the region) and extensive urbanization put great pressure on the environment. The lack of sewage treatment plants in the main cities result in a high degree of water pollution. The two main priorities of the RDP are strengthening of the competitiveness of the agricultural sector and the agribusiness and preserving the environment and mountainous areas. Considering the relatively large budget for agri-environmental measures, perspectives for its contribution to preserving the environment are promising, whereas the more moderate financial means for the priority on strengthening of the competitiveness of the agricultural sector and the agribusiness raise some doubts about its achievement.

## 14. Comparative analysis of rural development plans in the four case studies in most urban regions

### 14.1 Introduction

In Chapters 10-13, we have analysed the RDPs in the Southern Netherlands, North Rhine-Westphalia, Flanders and Lombardia. In this chapter, a comparative analysis is made of these four most urban regions. In Section 14.2, the focus is on socio-economic characteristics in the four case study regions. In Section 14.3, the RDPs in the four regions are compared from different viewpoints: rural development priorities, distribution of expenditure over the different rural development measures, and the contents of each rural development measure in the RDP. In the last section, we make some concluding remarks.

### 14.2 Socio-economic characteristics of the four regions

In the description of the socio-economic characteristics of the four case studies in the most urban regions in the previous chapters, we used six main headings: 1. function of the region; 2. natural and cultural heritage; 3. agriculture; 4. tourism; 5. other economic activities; and 6. environmental and water concerns. In this section, we use these main headings as starting point in the comparative analysis of the socio-economic characteristics.

#### *Function of the region*

All four regions are important economic centres with a rather long industrial and commercial tradition. As a result, these regions are highly urbanised. Despite their average high population density, all regions include parts with a lower population concentration (Fig. 14.1). Sometimes these rural parts are scattered like in the Southern Netherlands and Flanders, whereas in North Rhine-Westphalia and Lombardia the rural parts cover more extensive areas further away from the metropolitan centres.

Southern Netherlands	<ul style="list-style-type: none"> <li>- The region consists of three provinces, of which Noord-Brabant and Limburg have a higher population density (resp. 476 and 526 per km<sup>2</sup>), whereas Zeeland constitutes of isles and peninsulas with a lower population density (207 per km<sup>2</sup>). Main cities are Eindhoven (204,000 inh.) and Maastricht (122,000 inh.). Sometimes the province of Noord Brabant is called the second Randstad of the Netherlands.</li> </ul>
North Rhine-Westphalia	<ul style="list-style-type: none"> <li>- This region with the Rhine-Ruhr area forms the base of Germany's economic power;</li> <li>- The region is highly urbanised and 30 out of Germany's 84 largest cities are located there.</li> </ul>
Flanders	<ul style="list-style-type: none"> <li>- Flanders is one of the oldest industrialised regions of Northwestern Europe and has a predominantly urban character: no location is at a larger distance than 40 km away from a city;</li> <li>- The countryside is flat in general, but there are also hilly parts. Furthermore, there are polders, sandy plateaus and a valley around the river Meuse.</li> </ul>
Lombardia	<ul style="list-style-type: none"> <li>- Lombardia is Italy's principal economic centre. Its favourable location at the heart of communications in the north of Italy and with the remainder of Europe has encouraged its intense commercial and economic activity;</li> <li>- The region is strongly urbanized with an average population density of 377 inh. per km<sup>2</sup>. Milan is the biggest city (1.9 million inh.);</li> <li>- Lombardia is divided in two more or less parallel zones: mountains in the North (Alps and pre-Alps) and plains in the south (upland and lowland plains).</li> </ul>

Figure 14. 1 Function of the four regions

### *Natural and cultural heritage*

The landscape in all four regions is very diverse. Southern Netherlands is flat, whilst Lombardia is partly a mountainous area. In all regions nature and conservation areas have been designated with varying degrees of protection. On the whole, the surface of such protected areas varies widely: from about 10% of the total area in Flanders and Lombardia to over two-thirds in Southern Netherlands (Fig. 14.2). Due to the differences in the degree of protection, it is difficult to indicate the impact of this protection on economic activities. Cultural heritage is mainly concentrated in the cities.

Southern Netherlands	<ul style="list-style-type: none"> <li>- The landscape in Southern Netherlands is diverse. The province of Zeeland is made up of isles and peninsulas with open areas with cultivated land, water and coastal zones. Noord Brabant and Limburg are endowed with nature areas, forests, heather, river landscapes and hills;</li> <li>- About two-thirds of the region's surface is eligible for some degree of protection, for example, in the scope of the so-called Ecologische Hoofdstructuur (Ecological Main Structure), the Habitat and Birds Directive;</li> <li>- Cultural heritage is concentrated in the area close to the Belgian border.</li> </ul>
North Rhine-Westphalia	<ul style="list-style-type: none"> <li>- The 14 natural parks, the 1796 nature reserves and 2011 protected nature zones cover nearly 40% of the total area of North Rhine-Westphalia;</li> <li>- The capital Düsseldorf is the cultural centre with a fine opera house, many concert halls, galleries and art exhibitions, theatres and museums. Cologne and Aachen are other cultural centres.</li> </ul>

Flanders	<ul style="list-style-type: none"> <li>- Original nature is scarce in Flanders. In fact, present 'natural' areas are semi-nature. A further fragmentation of nature values is considered to be a serious problem since certain thresholds can be crossed, below which values can be lost permanently;</li> <li>- Flanders has a relatively short history of conservation of natural heritage. Fragmentation of property is a major problem in the formation of national parks. At this moment, approximately 8% of the territory consists of nature and conservation areas;</li> <li>- Cultural heritage is concentrated mainly in the cities and include Medieval and Renaissance paintings, architecture and traditions.</li> </ul>
Lombardia	<ul style="list-style-type: none"> <li>- There are many lakes, canals and rivers in Lombardia, of which the Po is the main river;</li> <li>- The region of Lombardia has designated a series of nature parks and reserves, especially along rivers and in the mountains, which cover approximately 10% of the total surface of Lombardia;</li> <li>- Cultural heritage is found in the old centres of cities like Milan, Brescia and Pavia. This includes castles, fortifications, walls, churches and other buildings.</li> </ul>

Figure 14.2 Natural and cultural heritage in the four regions

### Agriculture

In all regions the share of agriculture in total employment is close to 2%. In all regions, one third or more of the farms are specialized in livestock, often with a rather intensive character. The share of LFA in total agricultural area varies from nothing in Flanders to 21% in North Rhine-Westphalia (Fig. 14.3).

Southern Netherlands	<ul style="list-style-type: none"> <li>- In Zeeland there are many landbounded farms, especially arable farms. Both large and small scale farming occur. There is an increasing tendency towards multifunctional agriculture, in particularly agrotourism in the coastal zones. There is an influx of dairy farmers from other Dutch regions due to low land prices and little environmental problems;</li> <li>- Agriculture in Brabant and Limburg is characterised by intensive agricultural production. This results in environmental problems and a conflicting situation with other functions in the region. The reconstruction of pig breeding takes place in both provinces, which also affects the coherence with landscape. Many farmers recently joined the so-called opkoopregeling (buy up arrangement) and closed their businesses because of animal diseases and bad foresights;</li> <li>- the share of the agricultural sector in employment is 4%;</li> <li>- 6% of the agricultural area is classified as LFA.</li> </ul>
North Rhine-Westphalia	<ul style="list-style-type: none"> <li>- About half of the total area of the region is used for agricultural purposes; the share of the agricultural sector in employment is 2%;</li> <li>- Most of the farms (37%) are specialised in livestock (particularly in the district of Düren), about 23% is specialised in field crops (particularly in the Höxter area) and about 30% in mixed farming;</li> <li>- 21% of the agricultural area is marked as LFA.</li> </ul>

Flanders	<ul style="list-style-type: none"> <li>- The share of the agricultural sector in employment is 2%;</li> <li>- Although livestock farming is the largest sector with 39% of the farm holdings, mixed farming is traditionally relatively important (22%), as well as crops and horticulture (together 28%). Flanders has specialized in products and branches where no EU or light market regulations exist, such as horticultural products, pigs and poultry;</li> <li>- Farming is soil and capital intensive and highly productive: on a relatively small average of 14.4 ha per holding, a gross margin of 3.3 ESU/ha is realized, which is 75% above the average of even the most urban regions in the EU;</li> <li>- A typical characteristic of agriculture is the fragmentation of cultivated area: as a consequence of urban growth and terminated agricultural activity, many farms became partly or completely encapsulated by other economic activities or infrastructure development;</li> <li>- No part of the region is classified as LFA.</li> </ul>
Lombardia	<ul style="list-style-type: none"> <li>- About 2% of the total labour force is employed in agriculture and over two thirds of all farmers work part-time;</li> <li>- On the southern plains agriculture is rather intensive with industrial raising of livestock, dairy cattle, pigs and poultry, whereas agricultural production in the mountains in the north has an extensive character;</li> <li>- The main products are milk (27%), cattle (17%) and pigs (14%). There are some typical regional agricultural products like cooked meats, wines and special cheeses;</li> <li>- 19% of the agricultural area is classified as LFA.</li> </ul>

Figure 14.3 Agriculture in the four regions

### Tourism

In these highly urbanised regions, tourism is a minor economic activity in terms of employment. Tourist activities are mainly in the outskirts of the region or in scattered rural parts. In North Rhine-Westphalia and Flanders, tourist areas mainly fulfil the recreational needs of people that live close by, whereas tourist areas in the Southern Netherlands and Lombardia also attract many foreign visitors (Fig. 14.4).

Southern Netherlands	<ul style="list-style-type: none"> <li>- The coastal zones in Zeeland, the rural parts in Northern Brabant and the middle part and the southern part with its hilly surroundings in Limburg are main tourist areas;</li> <li>- Zeeland attracts many tourists from Germany and the Randstad, whilst most tourists in Brabant and Limburg come from the Randstad and other parts of the Netherlands.</li> </ul>
North Rhine-Westphalia (NRWF)	<ul style="list-style-type: none"> <li>- There are some traditional tourist areas in NRWF (Sauerland, the Dutchy of Berg, Siebengebirge, Teutoberg forest) that play an important role in recreational needs of inhabitants of the Rhine-Ruhr area.</li> </ul>
Flanders	<ul style="list-style-type: none"> <li>- Main tourist attractions are the coastal zone, the cities of culture (Antwerp, Ghent, Bruges, Mechelen, Leuven, etc.) and the more rural parts in the north and east of the region;</li> <li>- Tourism in Flanders is largely a domestic activity.</li> </ul>
Lombardia	<ul style="list-style-type: none"> <li>- Mountains, valleys and lakes are a year-round tourist attraction for both Italian and foreign visitors.</li> </ul>

Figure 14.4 Tourism in the four regions



### *Other economic activities*

All four regions were relatively early industrialised compared to other regions in their own countries. Nowadays, they are all services-based economies, with a decreasing share of employment in the industry sector and an agricultural sector that counts for about 2% of total employment (Fig. 14.5).

Southern Netherlands	<ul style="list-style-type: none"> <li>- The services sector provides employment for more than two-thirds of the people, of which half of the jobs are provided by the public sector. Nearly 30% of the people are working in the industry sector;</li> <li>- Main planned infrastructure projects are the improvement and extension of highway systems, the connection of the Randstad to the high speed lines in Belgium and the Ruhr area and the development of business parks.</li> </ul>
North Rhine-Westphalia	<ul style="list-style-type: none"> <li>- The services sector in the region is rapidly developing and provides employment for about 63% of the working population.</li> </ul>
Flanders	<ul style="list-style-type: none"> <li>- The share of the services sector amounts to 69% of the total labour force. The share of industry is 30%;</li> <li>- An open investment and business climate has contributed to a relatively high proportion of foreign and multinational firms;</li> <li>- The processing of agricultural (mainly animal) products is well established in Flanders with 7% of total industrial employment.</li> </ul>
Lombardia	<ul style="list-style-type: none"> <li>- Lombardia is one of the first industrialized regions in Italy. Nowadays respectively 41% and 56% of the total labour force is employed in industry and services;</li> <li>- Some of the most prestigious companies are operating in Lombardia although the amount of large industrial plants is reducing;</li> <li>- The present tendency is towards tertiarisation of urban areas, decentralisation of production processes and spread of small-scale entrepreneurs. Artisan activity plays an important role.</li> </ul>

Figure 14.5 *Other economic activities in the four regions*

### *Environmental and water concerns*

In all regions the pressure on the environment and water systems is high due to industrialization, increasing intensification of agricultural production, traffic and high population density (Fig. 14.6).

Southern Netherlands	<ul style="list-style-type: none"> <li>- High environmental pressure from intensive livestock farming (water, soil, air and odour pollution);</li> <li>- Relatively little pressure from heavy industry;</li> <li>- In Southern Netherlands, threats of rivers flooding is a major concern.</li> </ul>
North Rhine-Westphalia	<ul style="list-style-type: none"> <li>- Economic development in NRWF has adverse effects on the environment. In particular, the pollution of the Rhine by the productive forces in the Rhine-Ruhr area is a main concern;</li> <li>- Intensification in agriculture has harmful side effects on the environment, like the pollution of soil, ground and surface waters.</li> </ul>

Flanders	<ul style="list-style-type: none"> <li>- The maintenance of the quality of water is a very serious environmental challenge, especially pollution caused by nitrates and pesticides from agricultural activity. The discharge of waste water from purification plants contributes to water pollution too;</li> <li>- Air pollution is another important environmental problem due to industrial activity, traffic and intensive livestock farming;</li> <li>- Natural fertilisers are a heavy burden for the soil as the total production of manure on agricultural farms (pigs, poultry) is too large to apply to Flanders territory.</li> </ul>
Lombardia	<ul style="list-style-type: none"> <li>- The industrialization, the intensity of agricultural production and the high population density put a large pressure on the environment. This includes air pollution (waste treatment, traffic exhaust and industry), diminishing quality of water systems (no general sewage treatment plants, manure surplus) and groundwater levels going down (high use of water by households, industry and agriculture).</li> </ul>

Figure 14.6 Environmental and water concerns in the four regions

### 14.3 The Rural Development Plans in the four regions

In this section we compare the RDPs of the four case study regions from different viewpoints. First, we focus on the development priorities in the four RDPs and the distribution of expenditure over these priorities. Second, we analyse the distribution of expenditure over the different measures (a)-(v) in the four RDPs. Finally, we discuss the contents of each measure (a)-(v) in the four RDPs.

#### *Development priorities in the four RDPs*

The priorities of the second pillar of the CAP, as announced in Agenda 2000, are (EC, 1999:1):

- Strengthening the agricultural and forestry sectors;
- Improving the competitiveness of rural areas;
- Preserving the environment and rural heritage.

Broadly speaking, the key priorities for action in the RDPs in North Rhine-Westphalia, Flanders and Lombardia coincide with these priorities (Fig. 14.7). For the Southern Netherlands, the question is somewhat more complicated: it has no RPD of its own, but it is part of the RPD for the Netherlands as a whole. The RPD for the Netherlands distinguishes 6 development priorities, which differ slightly from the development priorities defined for the Southern Netherlands (see Fig. 10.4). However, it is quite easy to convert the rural development priorities of the Southern Netherlands and those of the Dutch RDP into the three main priorities distinguished in the RPDs for the other three regions.

On the whole, it may be said that the development priorities in the RDPs mainly address the socio-economic issues with regard to inadequacies in the structure of the agricultural sector, the degradation of natural environment and rural heritage, and the strengthening of rural tourism. The priorities are hardly focussed on other economic

sectors, for example, industries and services, in which the major part of the rural labour force is employed.

Priority	corresponding with key priority in RDPs of			
	SN *)	NRW	Flanders	Lomb.
Strengthening the agricultural and forestry sectors	1	1, 3	3	1, 2
Preserving the environment and rural heritage	1, 2, 3	3	2, 4	2
Improving the competitiveness of rural communities and areas	4, 5, 6	2	1, 5, 6	3

Figure 14.7 Priorities of the four RDPs

\*) Numbers refer to the development priorities in the RDP of Netherlands.

### *Distribution of expenditures over priorities*

In order to get insight in the distribution of expenditure of each RDP over these priorities, we have grouped the expenditures for the RDP measures a-v according to these priorities in Table 14.8. In the RDPs of Southern Netherlands and North Rhine-Westphalia the emphasis in the expenditure is on preserving the environment and rural heritage. In the Southern Netherlands, this is an absolute top priority, absorbing over 70% of the financial means, whereas in North Rhine-Westphalia also a substantial part (nearly 40%) of the financial means is reserved for the strengthening of the agricultural and forestry sectors. In Flanders, the strengthening of the agricultural and forestry sectors is the most important priority in the RDP with a share of over 40% of the RDP budget. In the RDP of Lombardia the priorities of strengthening of the agricultural and forestry sectors and preserving the environment and rural heritage are more or less of the same weight with both a share of approximately 45% in the budget. In all four RDPs, improving the competitiveness of rural communities has the lowest priority. In Flanders, the budget for this priority is even negligible.

### *Expenditure for the separate measures of the RDPs*

The share of each measure in total expenditure of the four RDPs is presented in Table 14.2. Investments in agricultural holdings (article 4-7) is relatively important in North Rhine-Westphalia, Flanders and Lombardia with a share of about 15% in the budget, whereas in Southern Netherlands this measure is of less importance. Support for young farmers (article 8) absorbs one tenth of the budget in Flanders, whereas its share in the budgets of North Rhine-Westphalia and Lombardia is negligible. This measure is not applied in Southern Netherlands. Expenditure for training (article 9) is limited, with a share of 5% in Flanders and a share of less than 1% in the other regions. Compensatory allowances for less favoured areas (article 13-21) absorbs 14% of the expenditure for the RDP in North Rhine-Westphalia, whereas in the other regions expenditures are very limited. Agri-environmental measures (article 22-24) is the group of measures to which a considerable amount of money is spent in each region: when the former accompanying measures are

Table 14.1 Distribution of expenditure of each RDP over these priorities (%)

Priority	Distribution of expenditure in %			
	SN	NRW	Flanders a)	Lombardia
1.Strengthening the agricultural and forestry sectors	14 (measures: a, c, g, h, i, m)	39 (measures: a, b, c, g, h, i, l, m)	43 (measures: a, b, c, g, h, i, m)	47 (measures: a, b, c, g, h, i, l, m, n, u)
2.Preserving the environment and rural heritage	72 (measures: e, f, k, q, t)	52 (measures: e, f, k, t)	23 (measures: e, f, i, o, t)	45 (measures: e, f)
3. Improving the competitiveness of rural communities and areas	13 (measures: n, o, p, r, s)	9 (measures: o, p, q)	0.1 (measures: n, p)	8 (measures: j, o, p, q, r, t)

a) Figures do not add up to 100 as 34% of the budget is reserved for transitory measures.

included, the share in expenditure ranges from about 11% in Flanders to 44% in Lombardia. Support for improvement of the processing and marketing of agricultural products (article 25-28) is moderate: it is between 0.5% in Southern Netherlands and 11% in Lombardia. The share of forestry measures (article 29-32) in the budget is of relatively more importance: it fluctuates from about 6% in Southern Netherlands and Flanders to 16% in Lombardia. Finally, article 33 on promoting the adaptation and development of rural areas absorbs most of the expenditures in the RDP of Southern Netherlands: about two thirds of all financial means. In North Rhine-Westphalia about one sixth of the budget is reserved for this article, while in Flanders and Lombardia respectively 6 and 9% of the financial means is spent on this article. Article 33 is rather heterogeneous in composition. In Southern Netherlands, most of the expenditure is reserved for reparable (mainly requiring agricultural area for conversion into nature area) (measure k), water management (measure q) and improvement of the structure of nature areas (measure t), whereas in North Rhine-Westphalia article 33 expenditure is for a major part spent on reparable (measure k) and village development and protection of rural heritage (measure o).

Table 14.2 Distribution of the total public RDP budget over measures, 2000-2006 (%)

art. 1257/99	Measures	SN	NRW	Flanders	Lomb.
4-7	a Investment in agricultural holdings	6.1	14.7	17.2	14
8	b Setting up of young farmers	-	1.1	11.0	1
9	c Training	0.4	0.6	5.3	0.04
10-12	d Early retirement	-	-	-	-
13-21	e Less favoured areas and areas with environmental restrictions	0.9	13.6	2.9	1
22-24	f Agri-environment	8.5	29.7	10.7	44
25-28	g Improving processing and marketing of agricultural products	0.5	9	5.1	11
29-32	h Afforestation of agricultural land	1.0	2.5	1.9	14
29-32	i Other forestry measures	5.2	10.2	4.1	2
	Article 29-32, total	6.1	12.7	6.0	16
33	j Land improvement	-	-	-	1
33	k Reparcelling	20.2	5.6	-	-
33	l Setting up of farm relief and farm management services	-	0.8	-	0.1
33	m Marketing of quality agricultural products	0.7	0.5	0.6	1
33	n Basic services for the rural economy and population	1.0	-	0.0	2
33	o Renovation and development of villages and protection and conservation of the rural heritage	2.8	7.2	3.0	0.3
33	p Diversification of agricultural activities and activities close to agriculture to provide multiple activities or alternative incomes	3.1	1.1	0.1	1
33	q Agricultural water resources management	10.2	0.3	-	4
33	r Development and improvement of infrastructure connected with the development of agriculture	2.6	-	-	2
33	s Encouragement for tourist and craft activities	3.2	-	-	-
33	t Protection of the environment in connection with agriculture, forestry and landscape conservation as well as the improvement of animal welfare	20.2	0.4	3.0	0.4
33	u Restoring agricultural production potential damaged by natural disasters and introducing appropriate prevention instruments	-	-	-	2
33	v Financial engineering	-	-	-	-
	Article 33, total	64.1	16.3	6.1	9
	Other:				
	- Evaluations	1.0	0.2	0.0	0.1
	- Former accompanying measures	11.7	1.6	0.6	-
	- Transitory measures	0.6	-	34.4	0.4
		-	-	100	-
	Total public expenditure for the RDP (in million euro)	1057 a)	855.76	547.84	805.435

a) For the whole country.

Source: Own calculations based on the RDPs of the regions.

The top 3 of measures with the highest expenditure in each RDP is summarized in Table 14.3.

Table 14.3 Top 3 measures in each region

Region	Art.	Measure	As % of total expenditure	
SN	33	Promoting the adaptation and development of rural areas	64	
		<i>of which:</i>		
	k	Reparcelling	20	
	t	Protection of the environment in connection with agriculture, forestry and landscape conservation as well as the improvement of animal welfare	20	
	22-24	f	Agri-environment (including former accompanying measures)	20
NRW	22-24	f	Agri-environment (including former accompanying measures)	31
	33	Promoting the adaptation and development of rural areas	16	
		<i>of which:</i>		
		o	Renovation and development of villages and protection and conservation of the rural heritage	7
			k	Reparcelling
4-7	a	Investment in agricultural holdings	15	
Flanders	4-7	a	Investment in agricultural holdings	17
	8	b	Setting up of young farmers	11
	22-24	f	Agri-environment (including former accompanying measures)	11
Lomb.	22-24	f	Agri-environment (including former accompanying measures)	44
	29-32	h-i	Afforestation measures	16
	4-7	a	Investment in agricultural holdings	14

#### *Comparison of the intended measures a-v in the four RDPs*

Until now we have focussed on the distribution of expenditures on the different measures a-v in the RDPs. Now we turn to a comparison of the contents of each measure a-v in the four RDPs. This comparison is especially interesting from the viewpoint whether different regions plan to use different measures under each of these groups.

##### *a Investment in agricultural holdings*

On the whole, support is given for investments in structural improvement, rationalisation and reduction of production costs, diversification of production, machinery, new products, diversification and experiments. All investments must comply with minimum standards regarding the environment, hygiene and animal welfare.

*b Setting up of young farmers*

This measure is applied in North Rhine-Westphalia, Flanders and Lombardia. It consists of a premium for young farmers setting up as farmer. Compliance with the minimum standards regarding the environment, hygiene and animal welfare and the assurance of economic viability are required.

*c Training*

In all four RDPs, training is directed at a wide range of items, like diversification on the farm, nature and landscape conservation, environmental protection, food safety, integrated forestry and marketing and processing of agricultural products. In all cases, training is aimed at a wide group of persons such as farmers, forest and woodland owners, and other persons engaged in farming and forestry activities.

*d Early retirement*

This measure is not applied in the RDPs of the four selected regions.

*e Less favoured areas and areas with environmental restrictions*

In the RDP of the Netherlands, North Rhine-Westphalia and Lombardia compensatory allowances per hectare are given to farmers in LFA provided that they commit themselves to good farming practices with regard to the environment and maintaining the countryside. In the RDP of Flanders - a region with no LFA - support is given to farmers in areas subject to environmental restrictions. In the RDPs of North Rhine-Westphalia and Lombardia such areas are also classified. In order to get support in these areas, farmers have to apply eco-compatible techniques.

*f Agri-environment*

Under this heading, farmers receive payments for managing and developing landscape features and habitats. For this purpose, in all RDPs a large number of schemes with detailed descriptions are developed. In all RDPs, several of the agri-environmental schemes refer to support for organic farming. In North Rhine-Westphalia, Flanders and Lombardia, support for conservation of domestic animals races threatened with extinction is included.

*g Improving processing and marketing of agricultural products*

In all four RDPs, support can be given for innovative investments, application of new production technologies, creation of new market outlets, improving and rationalisation of market channels and processing, introduction of technology directed at the protection of the environment and control of hygiene and health conditions. In the RDPs of Flanders and Lombardia support can also be given for the adoption of technologies for a better use or elimination of by-products or waste.

*h Afforestation of agricultural land*

This measure is applied in all RDPs: whereas in the Netherlands, Flanders and Lombardia both permanent and temporary afforestation of agricultural land is allowed, in the RDP of North Rhine-Westphalia the measures refer only to permanent afforestation.

*i Other forestry measures*

In all RDPs support for the maintenance and improvement of the ecological stability of forests can be given. Grants for afforestation of non-agricultural land are allowed in the RDPs of the Southern Netherlands and Lombardia, whereas processing and marketing of forest products can be supported in the RDP of North Rhine-Westphalia and Lombardia. The RDPs of North Rhine-Westphalia, Flanders and Lombardia foresee also support for associations of forest holders. In addition, the RDP of Lombardia gives also support for adaptation and creation of forest roads and trails, for prevention, tracing and extinction of forest fires, for environmental monitoring of forest resources and for forest planning.

*j Land improvement*

This measure is only applied in the RDP of Lombardia. It aims at the maintenance and improvement of the management and the multi-functionality of the mountain-pasture system.

*k Reparcelling*

This measure is only applied in the RDPs of the Southern Netherlands and North Rhine-Westphalia. In both plans, support for preparation and realization of land consolidation plans is given. The RDP of the Southern Netherlands foresees also in purchase of agricultural area with high nature value for conversion into nature and recreation area and in improvements in infrastructural facilities after land consolidation.

*l Setting up of farm relief and farm management services*

This measure is only applied in the RDP of North Rhine-Westphalia and Lombardia. In Lombardia support is granted for relief workers at farmers associations who are involved in employment creation, whereas in North Rhine-Westphalia support is directed at organizations who stimulate new farm management services.

*m Marketing of quality agricultural products*

In the RDPs of the Southern Netherlands, North Rhine-Westphalia and Flanders. support is given for the marketing of a wide range of quality products, whereas in Lombardia support is limited to marketing of organic products and products with a designation of origin or attestation of specificity.

*n Basic services for the rural economy and population*

This measure is only applied in the RDPs of the Southern Netherlands, Flanders and Lombardia. In the RDP of the Southern Netherlands, a wide range of basic services is supported, like an information shop, meeting places, infant welfare centres, child health care, public traffic and activities focussed on development and conservation of cultural values and regional identity. In Flanders support for basic services mainly concern the integration of vulnerable parts in rural areas and specific projects in agriculture and horticulture. In the RDP of Lombardia, support is limited to the provision of information on basic services.



*o Renovation and development of villages and protection and conservation of the rural heritage*

In all four RDPs, support is given to the renovation and development of villages (upgrading of village centres, traffic situation within villages and public spaces) and protection and conservation of the rural heritage.

*p Diversification of agricultural activities and activities close to agriculture to provide multiple activities or alternative incomes*

This measure is applied in all four RDPs. In the RDPs of the Southern Netherlands and North Rhine-Westphalia, diversification refers to a wide range of activities, such as traditional products, nature recreation, tourism, care and non-agricultural activities on farms and the introduction of ICT activities. In the RDP of North Rhine-Westphalia, the formation of associations, strategy concepts on diversification and demonstration projects can also be supported. In the RDP of Flanders, the emphasis is on new technologies, which bring producers and consumers together, tourism, and advice on converting to alternative activities. In Lombardia, diversification measures are mainly restricted to the restoration and conversion of farm buildings for agrotourism, teaching or leisure.

*q Agricultural water resources management*

In the RPD of the Southern Netherlands, a wide range of water management activities is supported, aimed at the improvement of hydrological systems directed at conservation, recovering or development of natural and cultural landscapes, agriculture, and if possible, combined with restricting water annoyance, protection of drink water resources, and prevention of desiccation. Support for integrated water management by Water Boards is given as well. In the RDP of North Rhine-Westphalia, support is aimed at various aspects of techniques, management and efficiency of irrigation systems. In the RDP of Lombardia attention is paid to collective water systems, reducing the use of water and innovative technologies for managing, using and protecting water resources. In the RDP of Flanders, the measure is not applied.

*r Development and improvement of infrastructure connected with the development of agriculture*

In the RDP of the Southern Netherlands, support is given for the construction or maintenance of secondary roads with a local function and for bicycle tracks along local roads aimed at the improvement of road safety; in the RDP of Lombardia support is given for conversion and/or construction of roads between farms, field and forest tracks, rural water systems and power lines in LFA. In the RDP of North Rhine-Westphalia and Flanders, the measure is not applied.

*s Encouragement for tourist and craft activities*

This measure is only applied in the RDP of the Southern Netherlands. Support is given for the provision of recreation facilities and the enhancement of rural tourism like hiking, bicycle and horse roads, parking places, banks, visitors' centres and the design of plans for rural tourism.

*t Protection of the environment in connection with agriculture, forestry and landscape conservation as well as the improvement of animal welfare*

In the RDP of the Southern Netherlands, support is targeted at the improvement of the structure of nature areas, the closing down of sewerage spillovers, purging of small-scale polluted soils, the design of local or regional nature and landscape programmes, development of public green spaces in land consolidation projects, the purchase of land for nature development, starting-up costs for mobilizing partnerships for agricultural nature conservation and starting-up costs for environmental projects at individual farms. In the RDP of North Rhine-Westphalia support is given for two pilot projects, which have to provide information on the protection of species of wild plants and the protection of traditional farm cultivars. In the RDP of Flanders, support under this measure is given for the restoration and development of village landscapes. Finally, in the RDP of Lombardia support under this measure is given for integrated projects for complete restoration, conservation and maintenance of the environment of degraded sites; where possible these sites must be used for teaching, demonstration or tourist purposes.

*u Restoring agricultural production potential damaged by natural disasters and introducing appropriate prevention instruments*

This measure is only applied in the RDP of Lombardia and refers to the restoration of the vine-growing stock which suffered from a serious epidemic of golden flavescence. Support is given for carrying out phytosanitary treatment and grubbing-up and re-planting of vines which fell victim to the parasite.

*v Financial engineering*

This measure is not applied in the RDPs of the four selected regions.

#### **14.4 Concluding remarks**

From the comparative analysis of the RDPs in the Southern Netherlands, North Rhine-Westphalia, Flanders and Lombardia, the following conclusions can be drawn:

1. The key priorities for action in each RPD coincide with those announced in Agenda 2000:
  - Strengthening the agricultural and forestry sectors;
  - Improving the competitiveness of rural areas;
  - Preserving the environment and rural heritage.
2. The emphasis in the expenditure in the RDPs of Southern Netherlands and North Rhine-Westphalia is on preserving the environment and rural heritage. In the Southern Netherlands, this is an absolute top priority, absorbing over 70% of the financial means, whereas in North Rhine-Westphalia also a substantial part of the financial means (nearly 40%) is reserved for the strengthening of the agricultural and forestry sectors. In the RDP of Flanders, the strengthening of the agricultural and forestry sectors is the most important priority in the RDP with a share of over 40% of the RDP budget. In the RDP of Lombardia the priorities of strengthening of the

agricultural and forestry sectors and preserving the environment and rural heritage are more or less of the same weight as both have a share of approximately 45% in the budget. In all four RDPs, improving the competitiveness of rural communities has the lowest priority. In Flanders, the budget for this priority is even negligible.

3. From the comparison of the intended measures a-v, it appears that a major difference is whether or not these are included in the RDPs. The measures on investments in agricultural holdings (a), training (c), less favoured areas (e), agri-environmental measures (f), improving processing and marketing of agricultural products (g), afforestation (h, i), renovation and development of villages (o), diversification of agricultural activities and activities close to agriculture to provide multiple activities or alternative incomes (p) and protection of the environment in connection with agriculture (t) are implemented in all four RDPs, whereas the other measures are only implemented in some of the four regions or not at all.
4. With regard to planned measures within the priorities of strengthening the agricultural and forestry sectors and improving the competitiveness of rural areas, differences are not very large between the four RDPs. However, this is not the case for achieving the priority of preserving the environment and rural heritage. In Lombardia, planned measures under this priority refer mainly to compensations in LFA (e) and agri-environmental measures (f). Although in the Southern Netherlands, North Rhine-Westphalia and Flanders these two measures are also intended to contribute to the priority of preserving the environment and rural heritage, in these three regions a number of measures under article 33 play a major role towards achieving this priority as well. In all three RDPs, measures on protection of the environment in connection with agriculture (t) are intended. In addition, in the Southern Netherlands and North Rhine-Westphalia reparation (k) is also an important measure for achieving the priority of preserving the environment and rural heritage. Finally, in the RPD of the Southern Netherlands agricultural water resource management (q) is also included under this priority, whereas in the RDP of Lombardia, renovation and development of villages and protection and conservation of the rural heritage (o) will be used for the achievement of this priority.

## 15. Recommendations for a regional differentiation of rural development policy in the EU

### 15.1 Introduction

In this study we undertook a comparative analysis of the Rural Development Plans (RDPs) in four intermediate rural regions (Northern Netherlands, Lower Saxony, Wales and Emilia Romagna) and four most urban regions (Southern Netherlands, North Rhine-Westphalia, Flanders and Lombardia). Such plans are designed in the scope of the second pillar of the Common Agricultural Policy (CAP). In particular, we focused on the question whether the Rural Development Plans consisted of a tailor-made package of rural development measures suiting the specific needs of the region. The reason for this particular analysis was the introduction of the menu approach in the second pillar, which, after all, enables Member States and regions to design Rural Development Plans with a tailor-made set of measures which address their specific rural development priorities. Although such a regionally differentiated approach was already applied before in selected regions in the context of EU Structural Policies, its horizontal application in the second pillar over the whole territory of the EU may be considered as a new element. Given the wide range of socio-economic, ecological and physical circumstances in the EU regions, the purpose of our comparative analysis was to explore whether the current menu of rural development measures of the Rural Development Regulation (RDR) offers sufficient alternatives to meet the specific needs of EU regions or whether the menu should be extended. The findings of our analysis may serve as input in the debate on the future orientation of EU rural development policy.

#### *Plan of this chapter*

The plan of this chapter is as follows. The Rural Development Regulation outlines three main rural development priorities. In our analysis of the selected Rural Development Plans, we were struck by the fact that it appeared that all eight case study regions identified these three development priorities to be their rural development needs. However, it also appeared that in the different RDPs different measures from the RDR menu were implemented to address these development priorities. Probably, this is due to some overlap in the RDR development priorities and the fact that RDR measures may contribute to more than one development priority. In Section 15.2, we discuss the relation between the three rural development priorities and RDR measures and we make some suggestions for a possible reformulation of these priorities. Then, in Section 15.3 we turn to the rural development priorities in the eight case study regions and compare them with our analysis of the socio-economic situation in the case study regions. In Section 15.4 we present an overview of which RDR measures are used in the case study regions and indicate which measures are often used and which measures are not or less often used. In Section 15.5 we formulate some recommendations which may contribute to a further regional differentiation of a

future rural development policy in the EU. Finally, in the last section the discussion on the on the future orientation of EU rural development policy is opened and some first comments are put forward.

## 15.2 Reconsidering the development priorities of the second pillar

In the Agenda 2000 reforms, the second pillar of the CAP was introduced as the new rural development policy of the EU. In the second pillar, three rural development priorities are defined (EC, 1999:1):

- strengthening the agricultural and forestry sectors;
- improving the competitiveness of rural areas;
- preserving the environment and rural heritage.

In order to address these priorities, a menu of measures can be implemented which are given under nine chapters in the Rural Development Regulation (RDR) (Regulation (EC) No. 1257/99). In the RDR, however, it is not indicated which specific measures should be used to achieve one of the three above mentioned rural development priorities. In Figure 15.1 we have tried to relate the nine chapters of the RDR 1257/99 to the rural development priorities. It appears that some of the chapters may contribute to the achievement of several priorities, which is mainly due to the fact that the three rural development priorities are formulated in such a way that they are not mutually exclusive. For example, both strengthening the agricultural and forestry sectors, while aiming at preserving the environment and rural heritage also, may contribute to strengthening the competitiveness of rural areas at the same time.

<i>Rural development priority</i>	<i>RDR 1257/99 chapters</i>
Strengthening the agricultural and forestry sectors	Investments in agricultural holdings; Setting-up aid for young farmers; Vocational training for farmers; Early retirement; Improving processing and marketing of agricultural products; LFA and areas with environmental restrictions; Forestry measures; Promoting the adaptation and development of rural areas .
Improving the competitiveness of rural areas	Promoting the adaptation and development of rural areas; Investments in agricultural holdings; Setting-up aid for young farmers; Vocational training for farmers.
Preserving the environment and rural heritage	Vocational training for farmers; LFA and areas with environmental restrictions; Agri-environment measures; Forestry measures; Promoting the adaptation and development of rural areas.

Figure 15.1 Indication of the possible relationship between RDR rural development priorities and RDR chapters

*Relationship between development priorities and measures in the case study regions.*

In order to show that this complicated relationship between development priorities and measures is not only a theoretical issue, but a real feature, we give an indication of which measures are implemented in the case study regions in order to achieve a specific rural development priority (Fig.15.2). For this purpose, we have used the measures a-v (Regulation (EC) No. 1750/99), which can be seen as a further specification of the nine chapters of the RDR. On the whole, it appears that the measures a (investments in agricultural holdings), h (Afforestation of agricultural land) and i (Other forestry measures) largely contribute to the rural development priority on the strengthening of the agricultural and forestry sectors, whereas measures e (Less favoured areas and areas with environmental restrictions) and f (Agri-environment) are in all case study regions used to achieve the rural development priority on preserving the environment and rural heritage. In particular measures m-u all part of article 33 of the RDR (Promoting the adaptation and development of rural areas)-are implemented in the case study regions for the realization of different rural development priorities.

	<i>Rural development priority</i>		
	Strengthening the agricultural and forestry sectors	Improving the competitiveness of rural areas	Preserving the environment and rural heritage
Northern Netherlands	a, c, g, h, i, m	n, o, p, r, s	e, f, k, q, t
Lower Saxony	a, c, g, h, i, m	n, o, r, s	e, f, k, t, u
Wales	a, h, i, p, s	c, g	e, f, n, o, t
Emilia Romagna	a, b, c, g, h, i,	m, o, p, q, r	e, f, t
Southern Netherlands	a, c, g, h, i, m	n, o, p, r, s	e, f, k, q, t
North Rhine-Westphalia	a, b, c, g, h, i, l, m	o, p, q	e, f, k, t
Flanders	a, b, c, g, h, i, m	n, p	e, f, i, o, t
Lombardia	a, b, c, g, h, i, l, m, n, u	j, o, p, q, r, t	e, f

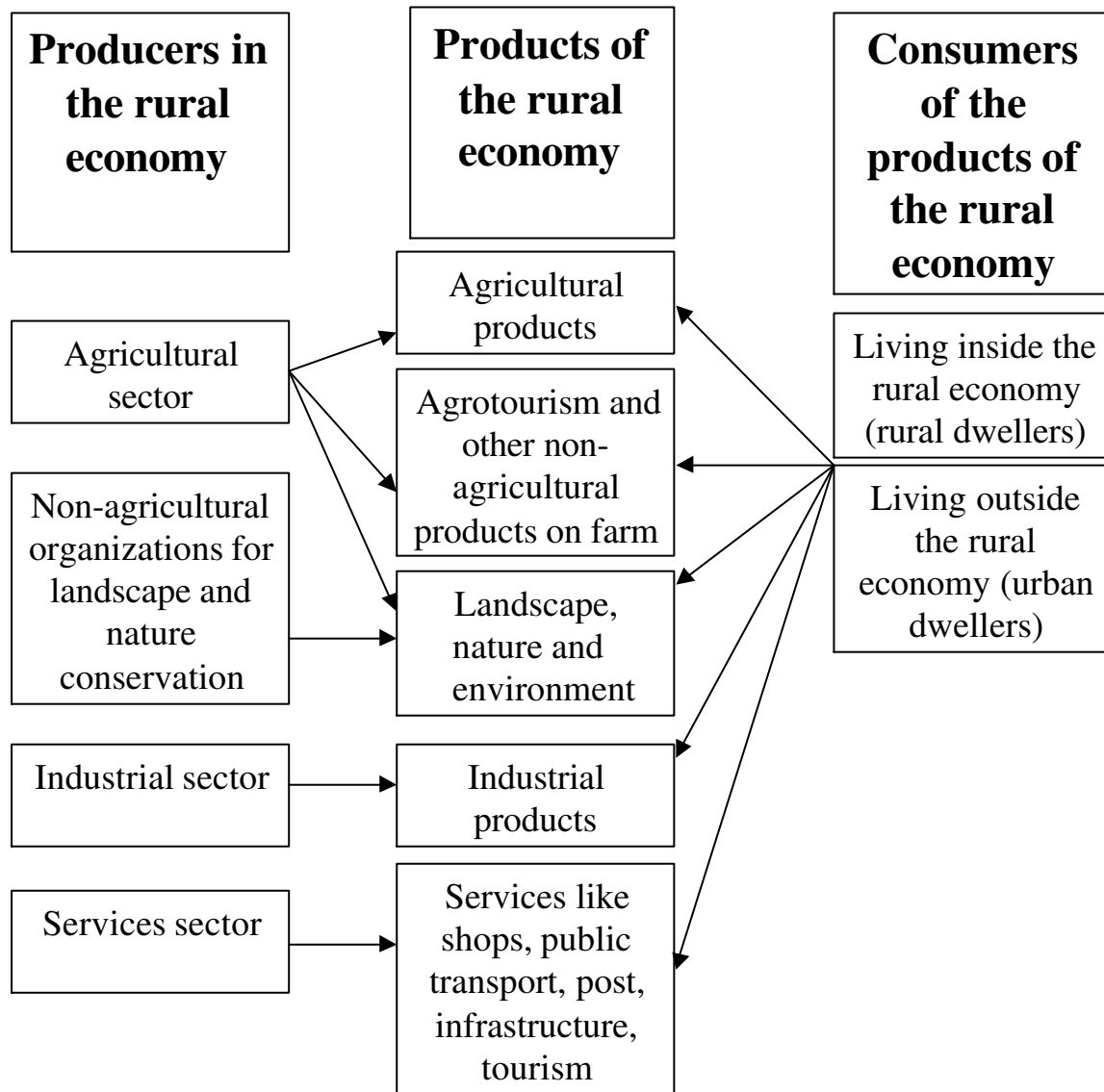
*Figure 15.2 Implemented measures (a-v) for the achievement of the rural development priorities in the case study regions*

*Assessment of the three rural development priorities*

The findings above suggest that the three development priorities of the second pillar are not mutually exclusive, but that some overlap exists. Moreover, it appears that it is not always clear which measures contribute to the achievement of which development priorities. In the assessment of the implementation and impact of the second pillar policies in the case study regions, this gives rise to some intransparency. One may well wonder whether such intransparency could be avoided by a reformulation of rural development priorities and measures in such a way, that overlap no longer occurs. Here, we first provide an attempt at such a reformulation of rural development priorities. Then, in Section 15.4 we turn to the rural development measures.

### *Supply and demand in the rural economy*

For the purpose of reformulating the rural development priorities, we give a design of supply and demand in the rural economy (Fig. 15.3). The mix of producers, products and consumers in the rural economy differs among regions in the EU. Below, we briefly discuss producers, products and consumers in the rural economy.



*Figure 15.3 Supply and demand in the rural economy*

### *Producers and products in the rural economy*

Agriculture is one of the suppliers in the rural economy. The properties of the agricultural sector largely vary in the EU, which may, for example, be illustrated by the following dialectic pairs:

- a. modern technology versus traditional technology;
- b. intensive production versus extensive production;
- c. favourable production circumstances versus difficult production circumstances;
- d. bulk production versus regional and high quality products;
- e. employing a substantial share of the labour force versus a limited share in employment.

For long, farmers were assumed to produce just food. However, due to food surpluses, environmental deterioration, consumer concerns and WTO negotiations, the concept of the European agricultural model has been launched recently, in which farmers are seen as producers of both food and landscape/nature. In contrast to food, landscape and nature are public goods. The production of landscape and nature includes a proper management of flora, fauna, water, soil and air. Along with farmers, nature conservation organizations are also involved in the production of nature and landscape. In a sense, farmers and nature conservation agencies are competitive suppliers of nature and landscape, which gives rise to discussions about the most efficient type of supply of nature and landscape. Finally, in order to diversify income sources on farm, a number of farmers provide non-agricultural products on farm, like agrotourism, meeting and education facilities.

Apart from farmers and nature conservation agencies, other main producers in the rural economy are the industrial and the services sector. Industrial production varies from large scale production to craft activities, whereas services may include shops, public transport, postal facilities, infrastructure, tourism and IT activities. As in the case of agriculture, the properties of the industrial and services sectors and their products largely vary among regions too.

### *Consumers in the rural economy*

Consumers of the products of the rural economy live both in the rural economy (rural dwellers) and outside the rural economy (urban dwellers, but consumers from other rural regions as well). Non-tradable products of the rural economy like landscape, natural and environmental qualities, and shops can only be consumed in the rural economy itself. This implies that consumers from outside have to move into the rural economy in order to consume these goods.

### *Recommendations for five rural development priorities*

Given our outline of the rural economy, for transparency's sake we think it is useful to link development priorities to each of the relationship between supplier and product



distinguished in Figure 15.3, and to formulate the five following mutually excluding rural development priorities:

- a. strengthening sustainable production of agricultural and forest products (i.e. foodstuffs, feed and forest products);
- b. stimulating the production of landscape and nature and sound environmental management by farmers;
- c. encouraging agrotourism and other non-agricultural activities on farm;
- d. enhancing the production of landscape and nature and sound environmental management by nature conservation organizations (including improvement of the conditions of landscape and nature);
- e. consolidating economic activities of the industrial and services sectors in rural areas.

It should be noted that these five development priorities are not new, but a reformulation of the three rural development priorities of Agenda 2000 only. This also implies that the rural development priorities address a sectorial and a territorial function simultaneously, as may be distinguished in the current second pillar as well (Saraceno, 2002). The first three development priorities are directed at the agricultural sector, and as such, they may be characterized as sectorial policy: rural development policy coincides with agricultural policy. On the other hand, the last development priority included is concerned with the industrial and services sector, which means that in this case rural development policy may be considered territorial policy. Priority (d) on enhancing the production of landscape and nature by nature conservation organizations may be seen both in terms of sectorial or territorial policies, depending on whether these nature conservation organizations are considered as part of the agricultural sector or as a part of the services sector.

In the Mid-Term Review of the CAP (EC, 2002a), the Commission has put forward a number of proposals to consolidate and strengthen the second pillar in the coming years. These proposals are aimed at the extension of the scope of the accompanying measures to address concerns about food safety and quality better, to help farmers to adapt to the introduction of demanding standards, and to promote animal welfare. In particular, it is proposed to include two new chapters in the RDR: one on 'Food quality' and the other on 'Meeting standards'. In addition, it is proposed to include a possibility for animal welfare payments in the agri-environmental chapter of the RDR. The chapter on 'Food quality' intends to encourage the participation of farmers in quality guarantee and certification schemes including geographical indications and designation of origin and organic farming, and to give support for producer groups for the promotion of quality and certification schemes. The chapter on 'Meeting standards' aims to help farmers to adapt to demanding standards based on Community legislation in the field of environment, food safety and animal welfare as well as implementing farm audits. In our opinion, these proposals do not imply a major shift of the second pillar but should be considered in terms of sharpening some rural development aspects already present in the current policies. Hence the proposals may easily be classified in the scheme of rural development priorities defined above: the two new chapters address the rural development priority (a) on strengthening sustainable production of agricultural and forest products, whereas the enlargement of the agri-environmental chapter with animal welfare payments fits within priority (b)

stimulating the production of landscape and nature and sound environmental management by farmers.

### **15.3 Assessment of the rural development priorities in the case study regions**

When comparing the rural development priorities in each Rural Development Plan (RDP) in the eight case study regions (Fig.15.4), it appears that the development priorities in all regions are rather similar to each other and that they can be more or less summarized as (1) strengthening the agricultural and forestry sectors, (2) improving the competitiveness of rural areas and (3) preserving the environmental and rural heritage. These are exactly the same development priorities as provided in the second pillar. This observation gives rise to the question whether the development priorities identified in the eight RDPs address the real and specific rural development needs in each region, or whether these are simply attributed to the second pillar's priorities. Given the wide range of socio-economic and ecological conditions - especially between the groups of intermediate rural and most urban regions - our hypothesis is that the latter is the case.

In order to test this hypothesis, we have identified an alternative set of rural development priorities in each of the case study regions, based on our analysis of the socio-economic situation in the case study regions in the previous chapters (Fig.15.5). From our analysis, it appears that all four most urban regions face three major rural development concerns:

1. conservation of nature and landscape;
2. environmental pollution from intensive agriculture;
3. lack of basic services and economic activities in some rural parts of the region.

In two of the intermediate rural regions - Lower Saxony and Emilia Romagna - the same rural development concerns are identified, whereas in the other intermediate rural regions Northern Netherlands and Wales rural development concerns refer to conservation of nature and landscape and lack of basic services and economic activities in rural parts. When we relate these rural development concerns to the rural development priorities of the RDP, then it can be said that rural development priority (3) on preserving the environmental and rural heritage is a concern in all our case study regions. When we further assume that the concern on lack of basic services and economic activities in some rural parts of the region coincides with rural development priority (2) on improving the competitiveness of rural areas, then this rural development priority is also topical in all case study regions. Finally, the rural development concern on environmental pollution from intensive agriculture identified in six out of eight case study regions, may be considered as part of rural development priority (3) on preserving the environmental and rural heritage. Based on these findings, namely that two of the three rural development priorities of the RDR prove to be a concern indeed in the case study regions, we may conclude that our hypothesis that the development priorities in the eight RDPs have simply been attributed to the second pillar's priorities as they have currently been formulated, may only partly be accepted.

With regard to the rural development concerns identified in the eight case study regions, we wish to make three comments. First, the fact that we found that the conservation of nature and landscape is a concern in all case study regions, has to be considered in the context of the selection of case studies. Four of them are most urban regions, in which nature and landscape are under high population and economic pressure, whereas nature and landscape in the four other regions are an important public good, to be available and accessible for a large number of tourists. Second, it needs to be stressed that the rural development concern on the lack of basic services and economic activities plays a role in some rural parts of the regions only. On the whole, at regional level the provision of basic services and economic activities is no problem given the existence of large urban centres in all case study regions. However, in the more remote and less densely populated parts of the case study regions, large distances may hamper the access to these basic services and economic activities. Finally, the fact that the rural development priority of the RDP on strengthening the agricultural and forestry sectors was not identified as a rural development concern in our case study regions, does not imply that this priority is not at all a rural development concern as such. In the most urban and intermediate rural regions we studied, the agricultural sector is rather small in terms of employment and tends to be rather modern. However, if we had included other regions in our set of case study regions, for example, rural regions with a relatively large and traditional agricultural sector, then we might well have identified strengthening the agricultural and forestry sectors as a rather more prominent rural development priority. These observations illustrate once more the need to design rural development plans which do address the specific mix of needs and qualities characteristic of a particular rural area in such a way as to make rural development work.

Case study region	Rural development priorities in the RDP
<i>Intermediate rural regions</i>	
Northern Netherlands	<ol style="list-style-type: none"> <li>1. Developing sustainable agriculture;</li> <li>2. Improving the quality of nature and landscape;</li> <li>3. Sustainable water management;</li> <li>4. Economic diversification</li> <li>5. Promoting tourism and recreation;</li> <li>6. Improving the quality of rural life.</li> </ol>
Lower Saxony	<ol style="list-style-type: none"> <li>1. Improvement of production structures and marketing;</li> <li>2. Multi-sector measures for rural development;</li> <li>3. Agricultural environment and compensatory measures in conjunction with agriculture and forestry, landscape conservation and the improvement of animal protection.</li> </ol>
Wales	<ol style="list-style-type: none"> <li>1. To create stronger agriculture and forestry sectors;</li> <li>2. To improve the economic competitiveness of rural communities and areas;</li> <li>3. To maintain and protect the environment and rural heritage.</li> </ol>
Emilia Romagna	<ol style="list-style-type: none"> <li>1. To support the modernisation and diversification of the productive structure;</li> <li>2. To develop agricultural activities compatible with the environment;</li> <li>3. To support the sustainable and integrated development of rural areas.</li> </ol>
<i>Most urban case study</i>	

<i>regions</i>	
Southern Netherlands	<ol style="list-style-type: none"> <li>1. Developing sustainable agriculture;</li> <li>2. Improving the quality of nature and landscape;</li> <li>3. Sustainable water management;</li> <li>4. Economic diversification;</li> <li>5. Promoting tourism and recreation;</li> <li>6. Improving the quality of rural life.</li> </ol>
North Rhine-Westphalia	<ol style="list-style-type: none"> <li>1. improvement of the production and marketing structure in agriculture;</li> <li>2. measures for rural development;</li> <li>3. measures addressing agri-environment, compensation and forestry.</li> </ol>
Flanders	<ol style="list-style-type: none"> <li>1. Maintenance and improvement of the diversity and the current quality of rural areas in Flanders;</li> <li>2. Development of an integrated policy centered around the sustained development of agriculture, horticulture, forestry, nature and the environment;</li> <li>3. Promotion of quality produce, quality management and monitoring systems as well as a system to establish communication between the producer and the final consumer;</li> <li>4. Promotion of the production process centered around the protection of the natural and rural environment and animal welfare;</li> <li>5. Promotion of diversification and differentiation in the supply of produce and services in rural regions, as well as through offering training in the agricultural, horticultural and forestry sphere;</li> <li>6. Maintenance of the work force and stimulation of employment in rural regions as well as the maintenance of the multifunctional role of Flemish rural areas.</li> </ol>
Lombardia	<ol style="list-style-type: none"> <li>1. Support for competitiveness of holdings and for development of the agri-food productive system;</li> <li>2. Agri-environmental policies and support for mountain areas and the forestry and stock farming sector;</li> <li>3. Integrated development of rural areas and improvement of rural housing.</li> </ol>

Figure 15.4 Overview of rural development priorities in the RDPs of the eight case study regions

Case study region	Rural development concerns according to our analysis
<i>Intermediate rural regions</i>	
Northern Netherlands	<p>The region can be said to have a tourist function. In this context, main development concerns are:</p> <ul style="list-style-type: none"> <li>- to improve the quality of nature and landscape, especially by establishing a network of large-scale protected areas;</li> <li>- to promote sustainable water management by means of optimising water levels for agriculture and nature, improving infrastructures for water supply and drainage and offering opportunities for water holding capacity;</li> <li>- to enhance the quality of life, especially with regard to the provision of and access to basic services and public transport.</li> </ul>
Lower Saxony	<p>The rural parts of the region are attractive for tourism. Main rural development priorities are related to environmental concerns such as:</p> <ul style="list-style-type: none"> <li>- the loss of semi-natural and extensively used cultural landscape biotopes;</li> <li>- the high share of intensively used agricultural land with high pollution of nitrates;</li> <li>- a poor condition of a large part of the forests;</li> <li>- a loss of endangered species;</li> <li>- lack of basic services and economic activities in some rural parts of the region.</li> </ul>

Wales	The region can be said to have a tourist function. In this context, main development concerns are: <ul style="list-style-type: none"> <li>- conservation of traditional farming practices in order to safeguard the countryside and valuable habitats;</li> <li>- strengthening tourist and other economic activities in rural parts.</li> </ul>
Emilia Romagna	The rural part of the region has a tourist function. In this context, main rural development concerns are: <ul style="list-style-type: none"> <li>- water pollution in the Po basin;</li> <li>- maintenance of farming in the mountain areas;</li> <li>- environmental pollution by intensive agriculture in the lowlands;</li> <li>- lack of basic services and economic activities in some rural parts of the region.</li> </ul>
<i>Most urban case study regions</i>	
Southern Netherlands	The region is mainly a place to live and work, with a tourist function in the rural parts of Zeeland. Its rural development concerns are: <ul style="list-style-type: none"> <li>- to relieve environmental pressure from intensive livestock farming;</li> <li>- to improve the quality of nature and landscape, especially by establishing a network of large-scale protected areas;</li> <li>- lack of basic services and economic activities in some rural parts of the region.</li> </ul>
North Rhine-Westphalia	The region is highly industrialized. Its rural development priorities are related to concerns such as: <ul style="list-style-type: none"> <li>- environmental pressure from intensive agricultural production;</li> <li>- irrigation with adverse effects on the environment;</li> <li>- the improvement of the quality of nature and landscape,</li> <li>- <u>lack of basic services and economic activities in some rural parts of the region.</u></li> </ul>
Flanders	The region is one of the oldest industrialized regions of Northwestern Europe. Main rural development concerns are: <ul style="list-style-type: none"> <li>- fragmentation of property, which hampers the formation of national parks;</li> <li>- maintaining the quality of water, which suffers from environmental pollution and the use of pesticides;</li> <li>- environmental pressure from intensive livestock farming;</li> <li>- lack of basic services and economic activities in some rural parts of the region.</li> </ul>
Lombardia	The region is Italy's principal economic centre. Main rural development concerns are: <ul style="list-style-type: none"> <li>- large environmental pressure: air pollution, diminishing quality of the water system, decreasing ground water levels and manure surpluses;</li> <li>- safeguarding ecological equilibrium in original natural habitats and landscapes</li> <li>- <u>lack of basic services and economic activities in some rural parts of the region.</u></li> </ul>

Figure 15.5 Overview of rural development concerns in the eight case study regions according to our analysis

#### 15.4 Use of rural development measures in the case study regions

In this section we focus on the use of the rural development measures in the eight case study regions. For this purpose, we have used the measures a-v (Regulation (EC) No. 1750/99), which may be seen as a further specification of the nine chapters of the Rural Development Regulation. From the overview of the distribution of expenditure among the various rural development measures in the case study regions (Table 15.1), it can easily be seen which measures are used often and which measures are hardly ever implemented. According to the degree of implementation and the share in the RDP budget, we have clas-

Table 15.1 Distribution of the total public RDP budget over measures in the case study regions, 2000-2006 (%)

art. 1257/99	Measures	Intermediate rural regions				Most urban regions				
		NN	LS	Wales	ER	SN	NRW	Fland.-	Lomb.	
4-7	a	Investment in agricultural holdings	6.1	15.2	0.5	19.9	6.1	14.7	17.2	14.1
8	b	Setting up of young farmers	-	-	-	8.9	-	1.1	11.0	1.2
9	c	Training	0.4	0.6	1.1	0.8	0.4	0.6	5.3	0.04
10-12	d	Early retirement	-	-	-	-	-	-	-	-
13-21	e	Less favoured areas and areas with environmental restrictions	0.9	0.3	44.8	2.1	0.9	13.6	2.9	0.7
22-24	f	Agri-environment	8.5	9.2	28.3	41.6	8.5	29.7	10.7	44.0
25-28	g	Improving processing and marketing of agricultural products	0.5	4.3	2.5	8.3	0.5	9	5.1	11.0
29-32	h	Afforestation of agricultural land	1.0	1.0	2.1	4.2	1.0	2.5	1.9	13.8
29-32	i	Other forestry measures	5.2	3.0	0.4	2.1	5.2	10.2	4.1	1.9
		Article 29-32, total	6.1	4.0	2.5	6.3	6.1	12.7	6.0	15.7
33	j	Land improvement	-	-	-	-	-	-	-	1.0
33	k	Reparcelling	20.2	11.9	-	-	20.2	5.6	-	-
33	l	Setting up of farm relief and farm management services	-	-	-	-	-	0.8	-	0.1
33	m	Marketing of quality agricultural products	0.7	0.2	-	1.9	0.7	0.5	0.6	0.6
33	n	Basic services for the rural economy and population	1.0	0.2	0.8	-	1.0	-	0.0	1.8
33	o	Renovation and development of villages and protection and conservation of the rural heritage	2.8	15.5	0.8	1.5	2.8	7.2	3.0	0.3
33	p	Diversification of agricultural activities and activities close to agriculture to provide multiple activities or alternative incomes	3.1	-	0.4	1.6	3.1	1.1	0.1	0.9
33	q	Agricultural water resources management	10.2	-	-	1.4	10.2	0.3	-	4.5
33	r	Development and improvement of infrastructure connected with the development of agriculture	2.6	7.9	-	2.9	2.6	-	-	1.5
33	s	Encouragement for tourist and craft activities	3.2	0.7	0.8	-	3.2	-	-	-
33	t	Protection of the environment in connection with agriculture, forestry and landscape conservation	20.2	4.0	0.8	0.1	20.2	0.4	3.0	0.4
33	u	Restoring agricultural production potential damaged by natural disasters	-	25.6	-	-	-	-	-	1.7
33	v	Financial engineering	-	-	-	-	-	-	-	-
		Article 33, total	64.1	66	3.5	7.6	64.1	16.3	6.1	9.3
		Other:								
-		Evaluations	1.0	0.1	0.0	0.5	1.0	0.2	0.0	0.1
-		Former accompanying measures	11.7	0.3	16.8	2.2	11.7	1.6	0.6	-
-		Transitory measures	0.6	-	-	-	0.6	-	34.4	0.4
		TOTAL (in million euro)	1057 a)	1684	813	852	1057 a)	855.76	547.84	805.435

a) For the whole country.

<i>Group 1</i>	<i>Used in all case study regions, share in budget largely varies a)</i>
a	Investments in agricultural holdings
e	Less favoured areas with environmental restrictions
f	Agri-environment
t	Protection of the environment in connection with agriculture, forestry and landscape conservation as well as the improvement of animal welfare
<i>Group 2</i>	<i>Used in all case study regions, limited share in budget b)</i>
c	Training
g	Improving processing and marketing of agricultural products
h	Afforestation of agricultural land
i	Other forestry measures
o	Renovation and development of villages and protection and conservation of the rural heritage
<i>Group 3</i>	<i>Often used, share in budget largely varies c)</i>
k	Reparcelling
<i>Group 4</i>	<i>Often used, limited share in budget d)</i>
b	Setting up of young farmers
m	Marketing of quality agricultural products
n	Basic services for the rural economy and population
p	Diversification of agricultural activities and activities close to agriculture to provide multiple activities or alternative incomes
q	Agricultural water resources management
r	Development and improvement of infrastructure connected with the development of agriculture
s	Encouragement for tourist and craft activities
<i>Group 5</i>	<i>Hardly used e)</i>
j	Land improvement
l	Setting up of farm relief and farm management services
u	Restoring agricultural production potential damaged by natural disasters and introducing appropriate prevention instruments
<i>Group 6</i>	<i>Not used</i>
d	Early retirement
v	Financial engineering

Figure 15.6 Classification of rural development measures according to the degree of use and the share in the budget in the eight case study regions

a) Share in budget is at least in one case study region 20% or more; b) Share in budget is 10% or less; c) Measure is used in 4-7 case study regions and share in budget is at least in one case study region 20% or more; d) Measure is used in 4-7 case study regions and share in budget is 11% or less; e) Measure is used in one or two case study regions.

sified the measures a-v into six groups (Fig.15.6). Nine out of the total of 22 rural development measures are used in all eight case study regions. From these, the agri-environmental measures (f) in all regions have a relatively high share in the budget, whereas the share in the budget of measure (a) on investments in agricultural holdings varies from 0.5% in Wales to 17% in Flanders, that of measures (e) on less favoured areas with environmental restrictions from 0.3% in Lower Saxony to 45% in Wales and that of measure (t) on protection of the environment in connection with agriculture, forestry and landscape conservation from 0.4% in Lombardia to 20% in the Northern and Southern Netherlands. The other five rural development measures (c), (g), (h), (i) and (o), which are used in all case study regions, only have a limited share in the budget. Eight rural

development measures are used often in the case study regions, of which measure (k) on re-parcelling has a substantial share in the budget in some case study regions, whereas the share of the other measures often used is limited. Finally, measures (j) on land improvement, (l) on setting up of farm relief and farm management services and (u) on restoring agricultural production potential damaged by natural disasters are only used in one or two case studies while measures (d) on early retirement and (v) on financial engineering are used not at all.

#### *Do we need all 22 RDR measures?*

From our overview of measures implemented in the case study regions (Fig.15.6), it appears that five RDR measures are hardly or not used. Of course, when we had included other regions in our set of case studies, we might have found other results. Nevertheless, the question is valid whether it is necessary to include all 22 measures in the RDR. With regard to the measures (d) and (v) that are not used in our case study regions, we think we have to maintain measure (d) on early retirement, as this may still prove to be useful in regions with a relatively large traditional agricultural sector, for example, in the accession countries. In our opinion, measure (v) on financial engineering may be omitted; eventually, such services can be included in measures (c) and (l). With regard to the three measures (j), (l) and (u) that are hardly used, we found that measure (j) on land improvement is very close to measure (k) on re-parcelling, so we propose to include measure (j) into measure (k). Measure (l) on setting up farm relief and management services may be included in a new RDR chapter on 'Meeting standards' as proposed by the Commission in the Mid-Term Review (EC, 2002). From measure (u) on restoring agricultural production potential damaged by natural disasters one may wonder whether a response to natural disasters should be part of rural development policy or that it needs to be addressed by ad hoc measures. We would prefer the latter and therefore, we propose to skip measure (u) from the RDR. Finally, in the group of measures often used, we found that the interpretation of measure (t) on the protection of the environment in connection with agriculture, forestry and landscape conservation, which is widely used in the Northern and Southern Netherlands, is very close to measures (f), (k) and (q). So we propose to skip measure (t) from the RDR. In summary, we suggest to skip measures (t) and (u) and to include measures (j) and (v) into other RDR measures, resulting in a reduction of the RDR to 18 measures.

#### *Towards a diet menu approach*

Despite the menu approach in the Rural Development Regulation, it appears that in the Rural Development Plans of our case study regions a rather large number of measures is implemented in each case. Although we found from our analysis of the socio-economic situation in the case study regions that strengthening of the agricultural and forestry sectors was no rural development priority, all case study regions included measures like (a), (g), (h), (i) and often (m) as well to achieve this aim. In a sense, the implementation of a wide range of measures aimed at various priorities in the RDP, involves a risk to fragment financial resources and may result in relieving the rural needs of a region insufficiently.



Therefore, in order to suit measures to the region's rural development needs properly, it should be considered to use the menu approach in such a way that one's plate is not overloaded with all kinds of different food, but that the plate will only be filled with ingredients according to the regional diet. In the end, such a diet menu approach may even imply that a region implements one or two measures from the RDR only.

### **15.5 Recommendations for a future rural development policy in the EU**

In designing recommendations for a future rural development policy of the EU, we were guided by the following considerations:

1. Given the wide range of socio-economic, ecological and physical circumstances in the EU, the menu of rural development measures should offer sufficient alternatives to meet the specific rural development needs of each region.
2. In order to avoid overlap between the rural development priorities, we propose to formulate them in such a way that they are mutually exclusive. We have attempted to define five alternative rural development priorities, based on the perception of the relationships between suppliers and products in the rural economy (see Fig. 15.3).
3. In our discussion of the use of the 22 RDR measures a-v in the case study regions, we suggested to skip measure (t) on the protection of the environment in connection with agriculture, forestry and landscape conservation, and measure (u) on restoring agricultural production potential damaged by natural disasters, and to include measures (j) and (v) into other RDR measures.
4. Our analysis of the 22 RDR measures did not result in the identification of main gaps in the menu of measures. Hence, we do not propose to extend the current menu of RDR measures, with the exception of the introduction of a new measure on a further strengthening of quality assurance and certification schemes, so as to anticipate the proposals in the Mid-Term Review (EC, 2002a).
5. In order to prevent the situation that a RDR measure may contribute to more than one rural development priority, we think it may be useful to split some RDR measures into more specific measures, contributing just to one rural development priority. This would increase the transparency in the relationship of RDR measures and rural development priorities. This is proposed more specifically for measures (i) on other forestry measures, (k) on reparaelling and (q) on agricultural water resources management.

Based on these considerations, we present an outline of future rural development policies in the EU below (Fig.15.7). In this outline, it is indicated how the proposed measures and the measures a-v of Regulation (EC) No. 1750/99 actually relate to one another.

Measure no.	Priorities and measures	Corresponding Reg. 1750/99 measure no.
	<b>Priority 1 Strengthening sustainable production of agricultural and forest products (i.e. foodstuffs, feed and forest products)</b>	
1.1	Investment in agricultural holdings	a
1.2	Setting up of young farmers	b
1.3	Training (including vocational training to help farmers to adapt to demanding standards based on Community legislation)	c *)
1.4	Early retirement	d
1.5	Afforestation of agricultural land	h
1.6	Investments in forests and improvements in forest management	i
1.7	Reparcelling of agricultural land	k
	<i>of which:</i>	
1.7.1	Support for the preparation and realization of land consolidation plans	k
1.7.2	Land consolidation of agricultural area	k
1.7.3	Improvements in infrastructural facilities after land consolidation	k
1.8	Encouraging the participation of farmers in quality assurance and certification schemes	**)
	<b>Priority 2 Stimulating the production of landscape and nature and sound environmental management by farmers</b>	
2.1	Less favoured areas and areas with environmental restrictions	e
2.2	Agri-environment	f
2.3	Animal welfare payments	***)
2.4	Agricultural water resources management	q
	<b>Priority 3 Encouraging agrotourism and other non-agricultural activities on farm</b>	
3.1	Diversification of agricultural activities and activities close to agriculture to provide multiple activities or alternative incomes	p
	<i>of which:</i>	
3.1.1	Restoration and conversion of farm buildings for agrotourism, teaching, leisure and care activities	p
3.1.2	Support for farm diversification	p
	<b>Priority 4 Enhancing the production of landscape and nature and sound environmental management by nature conservation organizations (including improvement of the conditions of landscape and nature)</b>	
4.1	Sustainable forest management	i
4.2	Reparcelling of nature conservation areas	k
	<i>of which:</i>	
4.2.1	Buying of agricultural land for nature conservation or recreation purposes	k
4.2.2	Improvements in infrastructural facilities in nature conservation areas	k
4.3	Water management in nature conservation areas	q

	<b>Priority 5 Consolidating economic activities of the industrial and services sectors in rural areas</b>	
5.1	Improving processing and marketing of agricultural and forestry products	g, i
5.2	Setting up of farm relief and farm management services	l
5.3	Marketing of quality agricultural products	m
5.4	Basic services for the rural economy and population (i.e. collective basic and tailor made services like information shops, meeting places, infant welfare centres, public transport)	n
5.5	Renovation and development of villages (including the protection and conservation of the rural heritage)	o
5.6	Development and improvement of local infrastructure in rural areas (i.e. construction of secondary roads, bicycle, field and forest tracks, and drinking water supply systems)	r
5.7	Encouragement for tourist and craft activities	s

Figure 15.7 Outline of future rural development priorities and measures in the EU

\*) Anticipating on proposed new RDR chapter 'Meeting standards' in the Mid-Term Review; \*\*) Anticipating on proposed new RDR chapter 'Food quality' in the Mid-Term Review; \*\*\*) Anticipating on the extension of the RDR chapter 'Agri-environment' in the Mid-Term Review.

### *Towards regional differentiation of rural development policy in the EU*

The above menu of rural development measures is rather extensive in order to suit the wide range of socio-economic, ecological and physical circumstances in the EU regions. However, this long list does not imply that regions need to include all these measures in their rural development plans. On the contrary, we propose that regions would select only those measures in their rural development plan which really address the rural development needs in their region, even if this results in a rural development plan with only one or two rural development measures. Such an approach of selecting rural development measures according to regional needs will result in a large variation in rural development measures implemented and may be considered regional differentiation of EU rural development policy. Such an approach also requires a flexible attitude of the EU Commission in agreeing to regionally differentiated rural development plans.

### **15.6 The floor is open for discussion**

Our comparative analysis of four intermediate rural and four most urban regions in the EU and their Rural Development Plans gives rise to a number of suggestions to reformulate the aims and measures of the EU Rural Development Regulation. In doing so, this study contributes to e.g. the ongoing dialogue on the future development of the second pillar of the Common Agricultural Policy. The European Commission already formulated proposals to reform rural development policies in the context of the Mid-Term Review of the CAP (EC, 2002a). These proposals are aimed at strengthening the second pillar of the CAP by e.g. integrating aspects like the care for food quality and animal welfare into rural development policies. Moreover, the financial impact of the RDR could be enhanced by

the introduction of modulation at a European level. In the near future, these proposals will have to be discussed and considered by the member states. The Dutch Government will also need to develop a position on these proposals, based on the experience with the RDPs in the recent past. Apart from the outline of future rural development priorities and measures in the EU presented in the previous section, several other items for discussion are suggested in this section.

#### *Shift from sectorial policy towards tailor-made territorial policy?*

In the light of the typology of Saraceno (2002), that distinguishes between sectorial and territorial policies, the question arises how the European Commission's proposals are to be understood. The way these were introduced by Commissioner Fischler, the proposals may be seen as a policy aimed at strengthening the societal and public function of agriculture. In this sense, the Mid-Term Review (EC, 2002a) may be a further step towards facilitating agriculture in improving its response to ever changing and higher societal demands in terms of both food production and sound environmental management or stewardship. The tendency to decouple income support from production and the kind of agricultural practices aimed at in the context of rural development policies clearly points in this direction.

At the same time, it is to be recognized that there is a territorial dimension to agriculture too, particularly to land bound agriculture. Essentially, this form of agriculture is and has been involved in the production of a number of environmental qualities of rural areas. These may include public goods like scenic values, quietness and space, landscape, nature and biodiversity as well as sound quality of water, air and soil. A transition of agriculture towards more sustainable forms of agriculture strengthening the kind of environmental stewardship involved, is intractably linked with territorial policies, since land bound agriculture is by far the most important land use in our rural areas. This does not take away from the fact, however, that there are a number of other (economic) activities that are also of relevance to the quality of life in the rural areas. Seen from this perspective the (economic) relevance of agriculture is relatively small.

In the Netherlands, the current use of the second pillar has emphasized the territorial dimension to some extent already. About two thirds of the financial means in its RDP are aimed at Article 33 measures. Even though, the question remains whether the differences that do exist between the various regions within the Netherlands have been sufficiently taken into account by opting for a Rural Development Plan at a national, rather than a regional level.

#### *Common policy or renationalization?*

If the reform of the CAP is approached from the perspective of the enlargement of the European Union, there is an even more obvious need for rural development policies to be formulated in such a way as to enable the development of tailor-made policy packages which suit the specific needs of a particular region. After all, the span will be enormous, with widely differing ecological, physical, climatic, economic, demographic and cultural circumstances between regions. This in turn gives rise to the question whether rural

development and indeed agricultural policies at a European level should not be focused on those policy dimensions only, which we absolutely need to regulate internationally, e.g. from a need to provide for a level playing field in terms of economic competition. All other dimensions of rural development policies could then freely be pursued at a national level, which would enable member states to develop the tailor-made policy packages needed in their particular circumstances.

*Future relationship between European policies for regional, rural and agricultural development?*

Yet another important dimension of this discussion is the relationship between a number of different European policies themselves. In the course of this study we came across several European Union policies having an impact on rural and/or territorial development also, e.g. Objective 2, LEADER and Interreg. Interestingly, some of these are laying great emphasis on the development of policy packages by the local population itself, which in a way would ensure tailor-made plans that will suit the specific contextual needs. The question is whether these policy measures that are usually aimed at a number of different economic functions which are most often situated in the settlements in the rural regions concerned, could not be successfully merged with those that are to be included in the reformulated second pillar of the CAP, or even the future CAP itself. This might deliver a rather more integrated policy framework aimed at truly multifunctional, territorial and regional development in the widely differing regions that are part of Europe.

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## Annex 1. Territorial scheme in this project

### *Territorial scheme of the OECD*

In the scope of the Project on Rural Indicators, the OECD has made a typology of rural regions, which covers its whole territory (OECD, 1994). The typology consists of three types of regions, derived on population density:

1. predominantly rural regions;
2. significantly rural (or: intermediate) regions;
3. predominantly urban regions.

The typology is based on a territorial scheme of two hierarchical levels: the local community level and the regional level. Local communities are basic administrative units with a very detailed grid, like cantons in France, districts in the UK and municipalities in the Netherlands. Regions are larger administrative units or functional zones with a less detailed grid, like *aemter* in Denmark, *provincias* in Spain and *provinces* in Belgium and the Netherlands. When population density in local communities is less than 150 inhabitants per square kilometre, the community is classified as 'rural'; when population exceeds 150 inhabitants per square kilometre as 'urban'<sup>1</sup>. As a second step, regions are divided into three groups (Fig. A1):

- when more than 50% of the population of the region lives in rural local communities, the region is classified as 'predominantly rural';
- when between 15 and 50% of the population of the region lives in rural local communities, the region is classified as 'significantly rural' or 'intermediate'<sup>2</sup>;
- and when less than 15% of the population of the region lives in rural local communities, the region is classified as 'predominantly urban'.

Moreover, when regions include a city of 200,000 inhabitants or more, the region is classified as intermediate; when regions include a city of 500,000 inhabitants or more, the region is classified as predominantly urban.

Within the scope of this scheme, a basic set of socio-economic indicators for these regions has been collected as well. The OECD designed this scheme and database of internationally comparable indicators in order to help member countries to improve their monitoring of changes and trends in rural economies, and to contribute to a sounder basis for decision making in rural development policy.

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<sup>1</sup> For Japan the threshold is 500 inhabitants per square kilometre.

<sup>2</sup> Originally, the term 'significantly rural' was used; as this was difficult to interpret for many users, later the term 'intermediate' was introduced.

### Adjustment of the OECD scheme in this study

In this project we have used this methodology for classifying EU15 regions. However, since we use larger regions (108 regions in the EU against about 500 by the OECD) we have adopted the labels of the three groups as follows:

1. most rural regions;
2. intermediate rural regions;
3. most urban regions.

The main reason for using regions at a higher aggregation level was agricultural data availability (in particular from the Farm Accountancy Data Network (FADN) and to a lesser extent from the Farm Structure Survey (FSS)). Due to our classification of regions at a higher aggregation level, we skipped the criteria on the presence of big cities in the region. An overview of our classification of EU 15 regions is presented in Table A2.1.

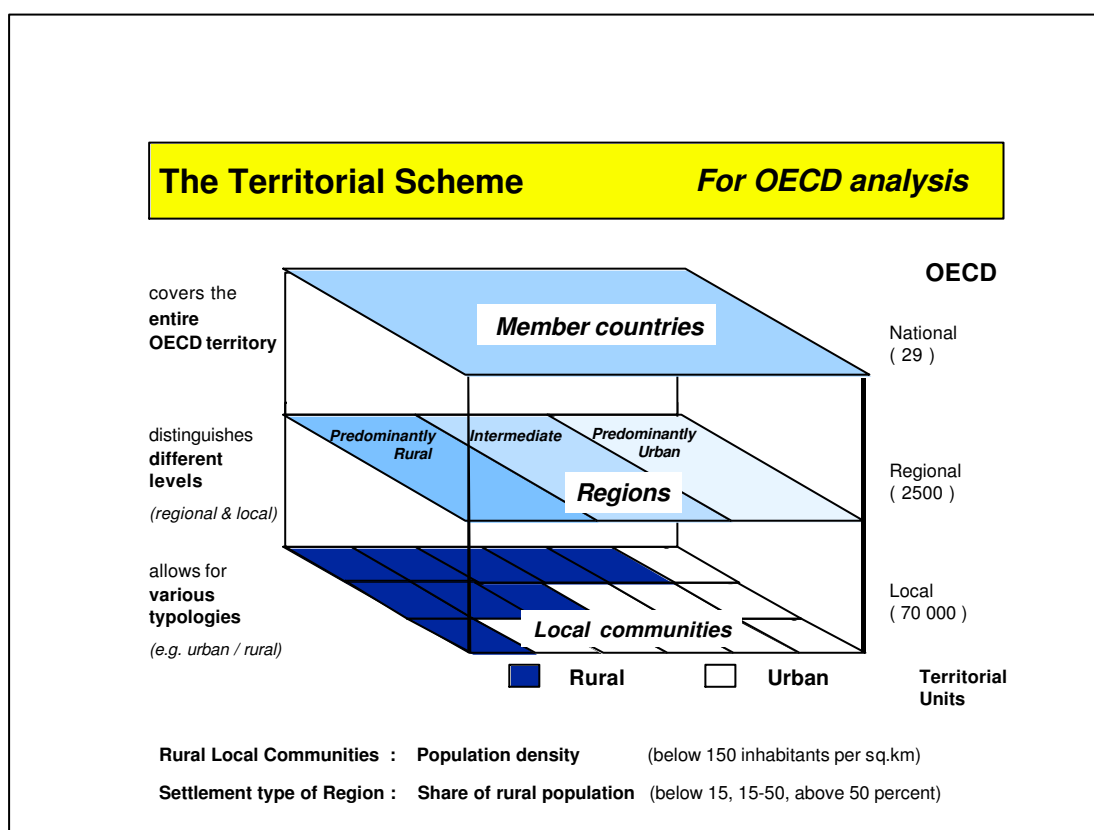


Figure A1 The territorial scheme for OECD analysis  
Source: OECD, 1996.

## Annex 2. Tables

Table A2.1 *Classification of EU 15 regions according to rurality in this study*

Country	Most rural regions	Intermediate rural regions	Most urban regions	Total number of regions per country
Belgium		Région Wallonne	Bruxelles-Brussel Flanders	3
Denmark		Danmark		1
Germany (West)		Schleswig-Holstein Niedersachsen Rheinland-Pfalz Bayern	Saarland Hamburg Bremen Nordrhein-Westfalen Hessen Baden-Württemberg	10
Germany (East)	Brandenburg Mecklenburg- Vorpommern	Sachsen-Anhalt Thüringen	Sachsen Berlin	6
Greece	Kentriki Ellada Nisia Aigaiou, Kriti	Voreia Ellada	Attiki	4
Spain	Castilla-La Mancha Extremadura	Galicia Asturias Cantabria Navarra La Rioja Aragón Balears Castilla y León Murcia Andalucía (including Ceuta & Melilla) Canarias	País Vasco Cataluña Madrid Comunidad Valenciana	17
France	Champagne-Ardenne Picardie Centre (FR) Basse-Normandie Bourgogne Franche-Comté Pays-de-la-Loire Bretagne Poitou-Charentes Aquitaine Midi-Pyrénées Limousin Auvergne Corse	Haute-Normandie Lorraine Alsace Rhône-Alpes Languedoc-Roussillon Provence-Alpes-Côte-d'Azur	Île-de-France Nord-Pas-de-Calais	22

Table A2.1 Classification of EU 15 regions according to rurality in this study (continued)

Country	Most rural regions	Intermediate rural regions	Most urban regions	Total number of regions per country
Ireland		Ireland		1
Italy	Valle d'Aosta Umbria Molise Basilicata Sardegna	Piemonte Trentino-Alto Adige Veneto Friuli-Venezia Giulia Emilia-Romagna Toscana Marche Abruzzo Calabria Puglia Sicilia	Lombardia Liguria Lazio Campania	20
Luxembourg (LU)	Luxembourg (LU)		1	
Netherlands		Noord-Nederland	Oost-Nederland West-Nederland Zuid-Nederland	4
Austria	Südösterreich	Ostösterreich Westösterreich		3
Portugal	Alentejo-Algarve	Norte-Centro (PT) Lisboa e Vale do Tejo (Ribatejo e Oeste)		3
Finland	Sisä-Suomi (Itä-Suomi) Pohjanmaa (Väli-Suomi) Pohjois-Suomi	Etelä-Suomi		4
Sweden	Södra och Mellersta Sveriges skogs- och mellanbygds-län Län i Norra Sverige	Södra och Mellersta Sveriges slättbygds-län		3
United Kingdom		England-West Wales Scotland Northern Ireland	England-North England-East	6
Total number of regions in the EU	32	50	26	108

Source: Own calculations based on OECD.



Table A2.2 *Intermediate rural regions with a population density between 140 and 250 inhabitants per km<sup>2</sup>*

Country	Region	inh./km <sup>2</sup>
Austria	Ostösterreich	145
Belgium	Région Wallonne	198
France	Provence-Alpes-Côte-d'Azur	143
France	Haute-Normandie	145
France	Alsace	208
Germany (East)	Thüringen	153
Germany (West)	Bayern	171
Germany (West)	Schleswig-Holstein	175
Germany (West)	Rheinland-Pfalz	203
Italy	Marche	150
Italy	Friuli-Venezia Giulia	151
Italy	Toscana	153
Italy	Piemonte	169
Italy	Emilia-Romagna	179
Italy	Sicilia	199
Italy	Puglia	211
Italy	Veneto	244
Luxembourg (LU)	Luxembourg (LU)	165
Netherlands	Noord-Nederland	197
Spain	Baleares	147
Spain	Canarias	220
United Kingdom	Wales	141

Source: Own calculations based on Eurostat, Luxembourg.

Table A2.3 *Most urban regions in the highest quintile of population density (out of a group of 108 EU regions)*

Country	Region	inh./km <sup>2</sup>
Belgium	Bruxelles-Brussel	5,913
Germany (East)	Berlin	3,835
Germany (West)	Hamburg	2,253
Germany (West)	Bremen	1,660
France	Île-de-France	910
Greece	Attiki	906
Netherlands	West-Nederland	844
Spain	Madrid	629
Germany (West)	Nordrhein-Westfalen	527
Netherlands	Zuid-Nederland	488
United Kingdom	England-East	446
Belgium	Flanders	438
Italy	Campania	426
Germany (West)	Saarland	419
United Kingdom	England-North	379
Italy	Lombardia	377
Netherlands	Oost-Nederland	335
France	Nord-Pas-de-Calais	322
Italy	Lazio	305
Italy	Liguria	302
Germany (West)	Baden-Württemberg	291
Germany (West)	Hessen	286
Spain	País Vasco	283

Source: Own calculations based on Eurostat, Luxembourg.