Forces affecting employment dynamics in Groningen

Case study in a lagging rural region in the Netherlands

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In this report the focus is on employment dynamics in Groningen since the beginning of the 1980s. This study is part of an EU wide research project on employment development in leading and lagging rural regions of the EU.

Total employment in Groningen increased by 36,000 jobs or with one quarter in the period 1984-1995. This employment growth mainly consisted of part time jobs. Nearly 40% of employment growth occurred in the community, social and personal services sector, 30% in the financial services sector, 13% in the manufacturing sector and 12% in the trade, restaurant and hotel sector. Employment in the agricultural sector declined by over 700 jobs in this period. Employment development is the result of many interacting factors. As strengths have been identified the nice capital city of Groningen with its knowledge infrastructure, which attracts entrepreneurs, labourers and students, the education level of the labour force and the concentration of firms in a zone from the city of Groningen to Delfzijl. Weak points in the employment situation are the peripheral location of Groningen relatively to main economic centres, the presence of traditional industries and the less favoured area of East Groningen. Opportunities for further employment growth are the congestion in the Randstad, the realization of the Blue City and the abundant space for firm settlement near the energy plant in the Eems Port. Threats are competitiveness with low wage countries and changes in EU agricultural and structural policies.

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Preface

This case study on employment dynamics in Groningen has been carried out in the scope of the FAIR project 'Agriculture and employment in the rural regions of the EU (RUREMPLO; CT 96 1766)'. In that project Groningen is considered as a lagging rural region, with a relatively less favourable development of employment since the beginning of the 1980s. In total 18 case studies have been carried in the project, of which 9 in leading rural regions and 9 in lagging rural regions. Except for the Netherlands, these case studies were carried out in the next 8 EU Member States: Belgium, Germany, Greece, Spain, France, Italy, Austria and Finland. Each of the case study reports can be seen as the 'story of employment dynamics' in a certain rural region. In the scope of the RUREMPLO project the case study reports have been used to identify forces behind employment dynamics in rural regions and to formulate lessons for employment creation in rural regions of the EU.

This case study has been carried out in 1998. For the purpose of this study we have made a number of interviews with key actors in Groningen (see Annex 1 for an overview). We are grateful to all of the interviewed persons for the information they provided to us. This information forms an essential part of this case study.

We acknowledge the useful comments of Mr. J.W. Zuidema (NOM) on an earlier draft of this report.

LEI Managing director

Prof. dr. L.C. Zachariasse

The Hague, March 1999

Key issues

Local resources

1. Do local resources matter in the creation of employment?

Yes, they contribute to employment growth, but actors are needed to exploit them.

2. Identification of those local resources (including infrastructure) which are important for the creation of employment

a. The soil is rich of resources: gas, salt and magnesium chloride. These resources are processed in rather capital intensive business units. Nevertheless they generate many employment opportunities, since in particular the processing of salt attracts many firms, who use the salt as raw material. Besides the soil contains mineral water, which is used for taking cures.

b. The system of highways and waterways is rather well developed. This allows for an efficient trade of goods and services.

Economic activities

3. In which branches does employment increase (decrease)? What are the properties of these branches?

The period 1981-1995 can be divided into three subperiods. During 1981-1984 employment decreased sharply by about 5% per annum. In the years 1985-1990 a period of rapid recovery started with an annual employment growth of 3%; in the 1990s employment growth slowed down to about 0.5 % per annum.

Total employment in Groningen increased by about 36,000 jobs to 180,500 or with one quarter in the period 1984-1995. This employment growth mainly consisted of part time jobs. Nearly 40% of employment growth occurred in the community, social and personal services sector, 30% in the financial services sector, 13% in the manufacturing sector and 12% in the trade, restaurant and hotel sector. Employment in the agricultural sector declined by almost 1300 jobs and in the energy sector by about 700 jobs in this period.

About 55% of employment growth was in the community, social and personal services sector, the construction sector and the wholesale and retail trade, restaurants and hotels sector. These sectors are characterized by a limited exposure to global markets, relatively stable prices and a rather labour intensive production. The other two branches with an important contribution to employment growth are the financial and the manufacturing sectors. These sectors are exposed to global markets and fluctuating prices. The production process of both sectors varies: the financial sector is labour intensive and the manufacturing sector labour extensive. It goes without saying that the larger share of employment is created in sectors with a labour intensive way of production.

4. *Does the sectoral mix explain the dynamics in employment growth (stagnation)?*
   No, since the sectoral mix in Groningen is equal to the national average. In comparison with the other intermediate rural regions in the Netherlands, Groningen shows a relative under representation of employment in the agricultural and industry sectors.

5. *Is employment created in small or large enterprises?*
   Employment is both created in small and large enterprises. In 1996 about 27% (over 50,000 jobs) of total employment was concentrated in small firms (0-10 employees), 36 % (over 66,000 jobs) in medium sized firms (10-100 employees) and 37% (70,000 jobs) in large firms (>100 employees). The retail branch had the highest number of jobs in small firms. In the manufacturing sector and health- and welfare services sector most jobs are in large firms. Jobs in the business services sector are spread over all the size classes, but small firms are more represented.

6. *Is employment created in new or existing enterprises?*
   The total balance of jobs in new and closing companies during 1992-1996 was about 3,400 jobs, which equals to about 40% of total growth of jobs during these years. This balance is composed of jobs due to establishments (16,400 jobs) minus loss of jobs due to closings (13,000). An annual average of 2,750 enterprises was established during the period 1992-1996 in Groningen; on the other hand there was an annual average of 1,350 closing enterprises. This resulted in an annual average net increase of 1,400 enterprises and 700 jobs. The expansion of employment in existing companies amounted for about 60% of the total net increase in employment in those years.

Actors: analysis of labour supply

7. *Does the education level of the labour force matter in the creation (stagnation) of employment?*
   In 1995 about 30% of the employed population had lower secondary education, 44% upper secondary education and 27% third level education. Compared to the other intermediate rural regions in the Netherlands, Groningen has a relative over representation of employed population with third level education, while the level of population with lower secondary education is the same. The relatively high education level attracts high tech firms, especially in the neighbourhood of the city of Groningen, because of the proximity of the university, the academic hospital and activities in biotechnics and information technology. There is a shortage of employment opportunities for low educated population.

Labour market

8. *Is employment hampered by the institutional structure of the labour market?*
   For some jobs the minimum wage level is too high, which results in the disappearance of jobs or a shift of jobs to low wage countries. There is a lack of instruments to promote the employment of unemployed low skilled elder people.

Actors: analysis of strategies

9. *Does the capacity of actors matter in the creation (stagnation) of employment?*
The insufficient cooperation with the provinces of Drenthe and Friesland, and the rather strict attitude of policy makers towards entrepreneurs were weak points in the early 1980s. However, since the end of the 1980s the attitude of policy makers towards entrepreneurs has been changed and in recent years the cooperation between policy makers of the three northern provinces has been improved as well. Policy makers are rather dynamic and dare to launch innovative plans.
Groningen has a long tradition of industrial entrepreneurship. Entrepreneurs are conscious of making their business sites attractive for other firms in order to increase the density of actors in the network, increase opportunities for complex building and for sharing service units.
Due to the dependent attitude of Groningen people, their capacity to innovate is rather low. However, when they are convinced by other people of an innovation, they put their doubts aside and embrace the new ideas. Innovating local actors are mainly originating from the groups of young people, policy makers and entrepreneurs.
The attitude of labourers to work is general referred to as good and loyal. In the eastern part of the region there is a tradition of social unrest. However, this does usually not endanger employment opportunities, since policymakers feel often pressed to provide extra financial support in order to prevent or to roll off social disturbances, and since trade unions emphasize the continuity of enterprises.

10. *Specify the role of internal and external networks in the creation (stagnation) of employment and give an analysis of which actors come to exercise power over others within and through networks*
Networks are small, surveyable and characterized by easy communication. Groningen is a small region and local actors know each other. Although on the whole the functioning of the networks is assessed to be reasonable or good, also some critical remarks can be made. The weaknesses of the small networks are that actors are not very critical to each other in fear to loose the unity among actors, that the actors are too much inward looking and that the density among actors is too low. As a result of the low density, contacts between actors have the character of sociability instead of an incentive to innovate, which often occurs in 'more stressed' networks, i.e. networks in an environment with a high density of actors and a high frequency of contacts. With regard to this aspect the functioning of the network could be improved. Entrepreneurs themselves are active in increasing the density of actors in their business sites. AKZO Nobel advertizes in its mission that 'AKZO Nobel Delfzijl is an attractive place of settlement for business units, joint ventures and other firms'. Firms in Veendam pushed for the establishment of the Rail Service Centre Groningen and entrepreneurs in knowledge intensive activities in the city of Groningen – in tandem with the university- created an attractive atmosphere for other firms. So in the corridor Groningen-Veendam-Delfzijl, in which about 70% of employment is located, entrepreneurs contributed to an attractive business climate.
Within the networks some local leaders can be identified: actors who are able to push

and to activate other actors to a large extent. As Groningen has quite a long tradition of industrial entrepreneurship, local leaders in the networks of entrepreneurs consist both of native Groningen entrepreneurs as well as entrepreneurs of non-Groningen origin. As immigrants usually tend to do, these newcoming entrepreneurs have the capability to mobilize other local actors, probably due to the fact that their attitude differs from the local actors in Groningen.

11. *Give an identification of the most effective policies and strategies towards maintaining or augmenting employment and indicate their local implementation (indicate why policies and strategies failed in maintaining or augmenting employment)*
    - Cooperation of enterprises with the University of Groningen and the Academic Hospital.
    - Extension of activities based on available raw materials.
    - The construction of the Rail Service Centre Groningen in Veendam.
    - Relocation of government services to peripheral parts of the country: for Groningen this concerns mainly the relocation of a part of the PTT, the national public post and phone company, from The Hague to the city of Groningen and the Dienst voor het Wegverkeer (Service for Road Traffic) to Veendam.
    - The harbour area 'Eemshaven' was delivered during the economic stagnation in the beginning of the 1980s. However, no additional policies were implemented to exploit the harbour area, and it was not integrated in the regional economy. Due to these reasons this harbour failed.

12. *How do farm households adapt to the situation of decreasing employment in the agricultural sector? What are the perspectives for tourism on the farm, landscape conservation and pluriactivity for farm households?*
    The share of agriculture in total employment is only a few percents, which is even below the national share. Sofar the most important strategy of farm households has been to adapt by farm enlargement, mainly by an increase in the agricultural area and predominantly in arable and dairy production. This strategy is still dominant but other strategies are gaining in importance. In this respect a slight tendency towards diversification of farm activities and the introduction of on-farm activities like processing of farm products, forestry and nature conservation can be mentioned. On the whole farm women are better qualified for a job outside the farm than men. It is expected that the percentage of farm women involved in off farm activities will increase, as they tend to continue their own labour perspective for which they have been qualified.
    Nevertheless, compared to other EU countries, in the Netherlands pluriactivity on and off farm is less important. Coherent with the competitiveness of land use, cultural values, conditions to get a loan for investments, agricultural policies and municipal and national policies, that support only to take over a *viable* farm which is able to provide a main source of income, there is more often a separation between agricultural activities and other activities.

1. Introduction

1.1 Objective, approach and plan of this case study

This case study is carried out in the scope of the FAIR project 'Agriculture and employment in the rural regions of the EU' (RUREMPLO; CT 96 1766). In this project an analysis is made of the development of employment in the rural regions of the EU against the background of a downward trend in the agricultural labour force. For this purpose a quantitative analysis of socio-economic characteristics in all EU regions and 18 case studies in leading and lagging rural regions in 9 EU Member States have been carried out in order to reveal forces behind employment dynamics. Based on the findings of the project a number of key messages emerge for policy consideration on employment opportunities in rural regions of the EU.

In RUREMPLO rural regions are viewed from the territorial approach, which means that rural regions are expressed as a territorial unit with one or more towns, with a local economy and a relatively low population density. Hence, a rural region is considered as an economic unit with an internal socio-economic structure and a system of local agents. The size of territorial units is for example that of départements in France, Regierungsbezirke in Germany, provincies in the Netherlands and counties in the UK. This territorial approach differs from other approaches from rural, for example those in which rural is more or less synonym to agriculture, to non-urban, to a specific set of social values etcetera.

During the last decade a number of rural regions in the EU showed a considerable employment growth in their non-agricultural sectors, while employment in other rural regions stagnated. In the RUREMPLO project we have labelled the first group as 'leading regions' and the second group as 'lagging regions'. In each of the participating countries in the project we have selected a leading and a lagging rural region for a case study analysis. In the Netherlands these regions are Drenthe (Terluin et al., 1999a) and Groningen. The other regions in which case studies have been carried out are: Luxembourg (B), Niederbayern (GER), Lüneburg (GER), Korinthia (GR), Fthiotis (GR), Albacete (SP), Zamora (SP), Alpes de Haute Provence (FR), Ardennes (FR), Nièvre (FR), Pesaro (IT), Macerata (IT), Osttirol (AUS) Liezen (AUS) Keski- Suomen Lääni (FIN) and Mikkelin Lääni (FIN). The approach of RUREMPLO is comparing pairs of leading and lagging rural regions within EU Member States. Thus, the RUREMPLO project analyses rural employment conditions and trends within given national policy settings. Its focus is on rural/rural, rather than on rural/urban or rural to national comparisons.

The aim of this case study is to analyse the development of employment in Groningen during the period 1980-1997. In order to visualize forces, which affect the employment development in rural regions, we have designed a field of force (figure 1.1). In this field the current global restructuring process, due to rapid technological changes in the communications and information sectors and due to political changes, is taken into account. This process results in an intensification of the external integration of rural regions. From the design of the field of

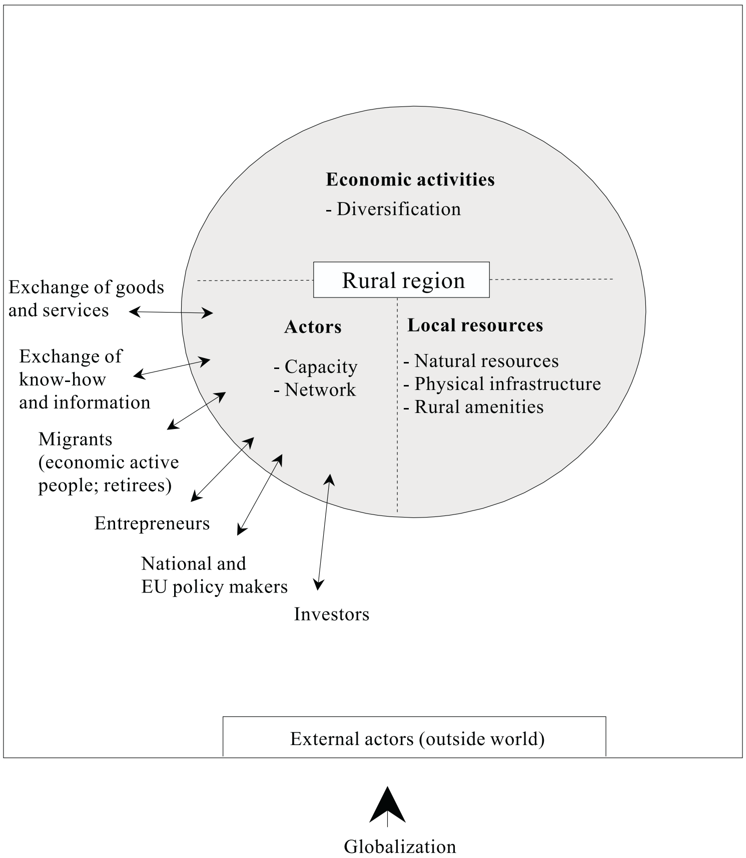


Figure 1.1 Field of force of a rural region

force it is clear that we assume that both endogenous and exogenous forces are important for the development of employment in rural regions. In the case study we pay especially attention to the networks of internal and/or external actors, who affect the development of employment (see for more information on the field of force Terluin et al., 1999b). In order to asses the strengths of the various factors in the field of force, a further step in the case study was to make a SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis of these elements. We have carried out a SWOT analysis for 1980 (beginning of the period under study) and 1997 (ending year of the period under study). The case studies are based on statistical analysis, on literature study and on interviews with relevant actors in the region (see Annex 1 for an overview of interviewed persons for the purpose of this case study).

In order to guarantee the comparability of the 18 case studies in the project, we have made a detailed guideline with questions around the 3 main components of the field of force: local resources, economic activities and actors (RUREMPLO team, 1997). In this guideline also the issues to be treated in the various chapters in each case study report are given.

The plan of this study is as follows. In this chapter introductionary remarks are made on the reasons behind the selection of Groningen as a case study region, on the history of Groningen, on the economic and geographical environment and on the institutional setting. In the second chapter local resources are discussed and in chapter 3 an analysis of economic activities is made. Labour supply is examined in chapter 4 and the functioning of the labour market is described in chapter 5. Strategies of the economic actors are elaborated in chapter 6 and in the last chapter a synthesis of the development of employment is given.

1.2 Reasons behind selection of Groningen in the case study

In RUREMPLO a leading region is defined as a region which manages to increase the non-agricultural employment and which simultaneously maintains or increases its population base. A lagging region is defined as a region in which employment stagnated or declined during the last decade. A general guideline for the selection of lagging regions in the case study is that the rate of non-agricultural employment growth is 0.25 percent points or more below the national rate.

It is rather difficult to make an analysis of employment development in the provinces of the Netherlands since 1980 till now, due to lack of a consistent time series for this period and due to the creation of a new province (Flevoland) in 1986. Several data sources for employment data for short intervals since 1980 exist, but often these time series cannot be linked to each other and show sometimes even opposite trends. In this report we use several data sources for employment, and if appropriate we will indicate difficulties with the interpretation of the data.

Discussion reasons for selection of Groningen

In the Netherlands a time series at provincial level on employment at the place of work for the 1980s and more recent years is only available for the period 1980-1991 (Eurostat). We used this series for the selection of a leading and a lagging region. In the Netherlands there are 5 intermediate rural regions 1: Groningen, Friesland, Drenthe, Flevoland and Zeeland. There is one rural region with a relatively low performance in employment in the 1980s: Groningen. Its growth rate of non-agricultural employment (measured at the place of work) amounted to 2.6% per annum compared to a national average of 2.9% per annum during the years 1980-1991 (Eurostat data). Besides, its population stagnated during the 1980s. Since the other 4 rural regions experienced a higher rate of employment growth in the period 1980-1991, we selected Groningen for the case study of a lagging rural region. The region is situated in the northern part of the Netherlands (map 1.1).

In a more detailed look at the time series of the above used regional employment data from Eurostat for the years 1980-1991 we discovered that there was a break between 1985 and 1987, that the year 1986 for all provinces was missing, that there were no data for industrial employment for the year 1989 and that the years 1980-1985 were missing for Overijssel, Gelderland and Flevoland. Simply calculating an annual growth rate by using the beginning and end year of the series yields too high growth rates. Growth rates, calculated as the average of yearly

1 Based on the criterium of population density, Groningen,Friesland, Drenthe, Flevoland and Zeeland are classified as 'intermediate regions' and Overijssel, Gelderland, Utrecht, Noord-Holland, Zuid-Holland, Noord-Brabant and Limburg as 'most urban regions' (see OECD, 1994 and Terluin et al., 1999b).

Map 1.1 Location of Groningen in a broader EU context

growth rates for the period 1980-1985 and 1987-1991, resulted in moderate growth rates. By using these rates, non-agricultural employment growth in Groningen amounted to 0.0% per year and that for the Netherlands as a whole 0.7%. So by using these growth rates, we still fit within the criteria for selecting a lagging region in our RUREMPLO project.

When we try to extend the period 1980-1991 to more recent years, we have to use another source of employment data, the provincial employment database PWR. These data are based on a census by the province of Groningen, whereas Eurostat data are based on a labour survey by the Central Bureau of Statistics of the Netherlands. Both refer to employment at the place of work. PWR data are available for the years 1981 and 1984-1996. The problem with the time series of Eurostat and PWR is that these are badly comparable and sometimes even show opposite results. Dutch experts in regional employment data prefer PWR data (see for example Stelder and Van Dijk, 1997). Annual growth rates of employment according to PWR for the period 1981-1996 in Groningen amount to 0.7% (0.5% in 1981-1991). This is slightly below the level in Drenthe (annual increase of 0.8% in 1981-1996 and 0.6% in 1981-1991), which has been selected as a leading rural region in our RUREMPLO project. This small difference raises the question whether Groningen can still be considered as a lagging rural region.

Table 1.1 Total employment (at the place of work) in Groningen and Drenthe, 1981-1996

	Groningen in persons	1981=100	Drenthe in persons	1981=100
1981	168,980	100	125,298	100
1982	NA	NA	120,365	96
1983	NA	NA	117,513	94
1984	144,636	86	116,388	93
1985	147,939	88	118,145	94
1986	151,970	90	121,734	97
1987	152,330	90	124,766	100
1988	167,098	99	127,539	102
1989	172,113	102	128,806	103
1990	176,755	105	131,891	105
1991	177,448	105	133,385	106
1992	178,327	106	135,231	108
1993	179,985	107	137,066	109
1994	178,893	106	136,420	109
1995	180,501	107	138,690	111
1996	187,131	111	140,839	112

Sources: PWR Groningen and PWR Drenthe; adaption LEI.

When we have a closer look at the employment data (table 1.1), we can see that on the whole Drenthe had a more positive employment experience than Groningen, although differences are rather small. During the first half of the 1980s Groningen had a sharper decrease in employment (5% per annum in 1981-1984) relatively to Drenthe (2.5% per annum in 1981-1984). In the second part of the 1980s Groningen showed also a higher annual increase in employment (over 3% per annum in 1984-1990) compared to Drenthe (2% per annum in 1984-1990). However, in the first half of the 1990s employment growth in Groningen stagnated (+0.5% per annum in 1990-1995), whereas that in Drenthe showed a moderate increase (1% per annum in 1990-1995). In 1996 employment in Groningen jumped again to a high extent, and in that year the increase in employment since 1981 was more or less similar to that in Drenthe. Based on these figures it can be concluded that Drenthe and Groningen are not very extreme cases of a leading and a lagging region.

1.3 Brief historical overview of the region

The region of Groningen is often referred to as 'Stad en Ommeland (City and Surrounding)', which emphasizes the regional function of the city of Groningen. The city of Groningen has been legally constituted in 1040. Since the Middle Ages the city was the central market place in the region. Waterways to support this market function were constructed, mainly in the 16th and 17th century (Kooij, 1987:1). Till 1900 considerable areas of land were reclaimed from the sea in the northern and eastern part of the region (Keuning, 1974:8). Especially in the eastern part this resulted in colonization of non-native labourers, with a different mentality relatively to the native population. During the industrialization in the second half of the 19th century various plants arose in the production of textiles, bicycles, sugar, tobacco, coffee, tea and book printing in the city of Groningen. At this time its services function was also further enhanced, especially in the trade of grain ((Kooij, 1987:369). Outside the city activities in the agro industry (in particular starch potatoes and cardboard) and shipbuilding became important, mainly in the south eastern part of the region.

After the Second World War about 30% of employment was in agriculture. Due to the exodus of agricultural labourers as a consequence of mechanisation, shortages of employment opportunities arose, in particular in the Oldambt (eastern part of the region), Westerwolde/Kanaalstreek (south eastern part of the region) and Westerkwartier (western part of the region) (Bosscher, 1994:166-7). Especially in East Groningen this situation resulted in a political radicalization, i.e. huge support for the communist party. Moreover, the region was confronted with a negative emigration balance. From the 1950s the Dutch government implemented an industrialization policy for the whole country, in which it aimed at the creation of jobs in the peripheral parts of the country and a relief of the congestion of economic activities in the western part of the country. Partly due to this policy several firms like Philips and AKZO settled in the region. Moreover, the discovery of large amounts of gas in the soil resulted in employment creation. In 1970 the construction of the Eemshaven (port at the Eems in the north eastern part of Groningen) started. However, no big firms settled in the site near the port, as this was hampered by the economic crisis of the 1970s. At the beginning of the 1980s it can be said that the transformation from an agrarian economy to an industrial economy had been completed, and that a phase started of a decline of the share of industries in employment and a further increase in the share of services (table 1.2). Although employment opportunities have been increased outside the agricultural sector, at the beginning of the 1980s the region suffered from a relatively high rate of unemployment, reflecting a situation of too few jobs.

Table 1.2 Sectoral distribution of employment in Groningen, 1973-1995 (%)

	1973	1980	1990	1995
Agriculture	10	7	4	4
Industries	40	33	26	23
Services	50	59	69	71

Sources: Eurostat (1993) for 1973; Eurostat Regio Database for the other years.

1.4 Geographical and economic environment

Geographical environment

Groningen is one of the three northern provinces of the Netherlands. These are characterized by a relatively low density of population and economic activities and are located at the periphery of the Netherlands. This common starting point sometimes results in a natural cooperation to face problems in certain fields.

Table 1.3 Economic environment

	Groningen	the Netherlands
Population in 1996 (million)	0.56	15.49
Size of the region (km²)	2,967	41,029
Population density (inhabitants/km²)	185	378
Population growth 1980-1996 (% per annum)	0.04	0.6
Employment growth 1980-1991(% in persons per annum)	0.0	0.7
Population 15-65 years (as % of total population):		
1980	65	66
1996	69	68
GDP per capita in ecu [1]		
1980	17,000	8,800
1993	22,300	17,300
Sectoral employment as % of total employment, 1995		
Agriculture	2.3	3.7
Industries	24.3	22.6
Services	70.4	70.6
Unemployment rate (%):		
1987	14.0	9.9
1995	9.7	7.3
Population in main cities, 1995		
Groningen	171,000	
Hoogezand-Sappemeer	34,000	
Delfzijl	33,000	

Source: Eurostat Regio database.

The province of Groningen borders on the Wadden Sea and Germany. There are several landscape types in Groningen but the largest part of the province is flat, with open views over extensive fields, sometimes bordered by rows of trees. The capital city of the province, which is also called Groningen, is the sixth largest city in the Netherlands. It is not only the centre of the province of Groningen but a centre for all three northern provinces. A large part of the population of the province lives in the city of Groningen (about 30%). The city has a large number of educational establishments, including a University. There are several museums and other cultural amenities, congress facilities, a wide variety of shops, which are concentrated in the old inner city, and outstanding medical centres. There are also a number of smaller cities like Hoogezand-Sappemeer, Winschoten, Stadskanaal, Veendam and Delfzijl. These are all in the eastern part of the province (Eurostat, 1993).

The province is connected to the national motorway system and is also easily accessible by well developed roads from Germany by the highways A28 and the A7. The A28 connects Groningen and Zwolle (capital city of the province of Overijssel). From Zwolle it is easy to go to the rest of the Netherlands. The A7 crosses the province from west to east, going from the province of North-Holland over the 'Afsluitdijk' and the province of Friesland and the

[1] The high GDP per capita in Groningen is the result of the inclusion of gas revenues. When GDP per capita is corrected for this, it is below the GDP per capita in the Netherlands as a whole. In 1995 (the corrected) GDP per capita in Groningen was 17,840 ecu and in the Netherlands as a whole 19,290 ecu (Stelder and Van Dijk, 1997).

Map 1.2 Provincies of the Netherlands

province of Groningen to Germany. There are good rail connections with the rest of the Netherlands and the province has three seaports in the north: Lauwersoog, Eemshaven and Delfzijl. There are also canals in this area which at one time were used to transport potatoes and cardboard. Eight kilometres out of the city of Groningen is the Groningen Airport Eelde (located in the north of Drenthe). This airport has grown from a small local airport to the main regional airport of the northern part of the Netherlands. The province has underground one of the largest deposits of gas in the world (Eurostat, 1993).

The city of Groningen, which is located at only one kilometre from the northern border of Drenthe, is an important location for (North) Drenthe from the perspective of employment. Many people live in Drenthe and work in Groningen and commute daily.

The European integration emphasizes the significance of foreign markets. This is a positive development for Groningen because it is located at the periphery of the domestic market. Due to the expansion of the EU with Scandinavian countries and the possible future expansion to the Central and Eastern European countries, Groningen becomes a relatively more central location.

1.5 Institutional setting

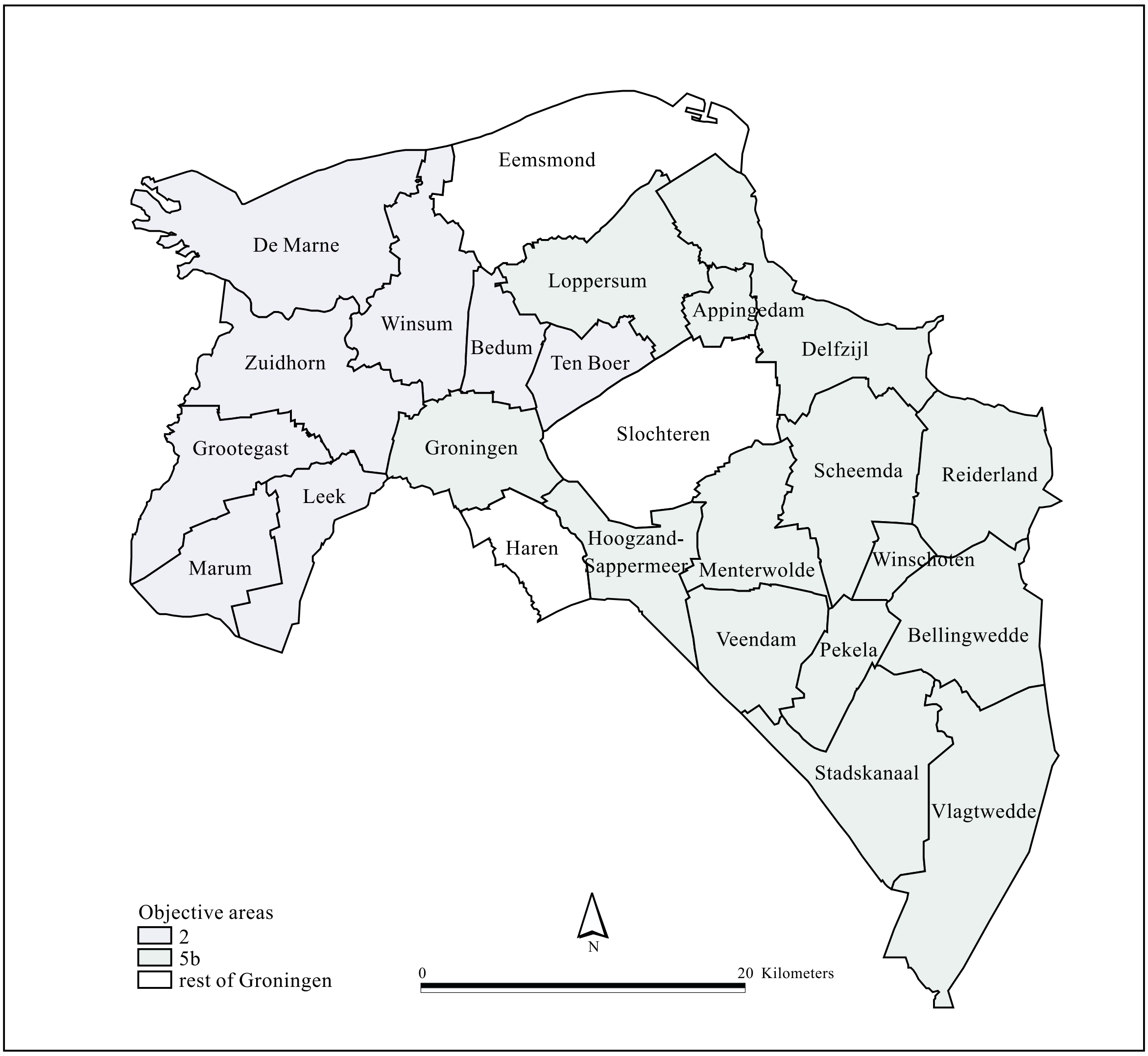
The Netherlands are divided into 12 provinces (map 1.2), each with an own administration. This administration makes decisions about developments at the provincial and local level. Groningen is one of the provinces of the Netherlands. It has its own tasks but cooperates closely with other administrative institutions like the Dutch government, municipalities, the other two provinces in the north: Friesland and Drenthe, the Water Boards (waterschappen) and business, organizations and institutions. The province of Groningen constitutes the administrative level between the Dutch government and its 25 municipalities. Compared to the Dutch government the province of Groningen has mainly an executive task but it also makes some policy, for example in the field of infrastructure. The national government can decide that the province administration contributes to the execution of higher hierarchic regulations. So far as regulation and administration of its own housekeeping is concerned, the province administration is autonomous.

The mutual relation with other provinces is called IPO (interprovincial consultation). IPO is an organization of and for the provinces. It protects the interests of the provinces and serves as a coordinator and negotiator with the national government. The municipalities of Groningen (together with the province of Groningen and employers) care for a good settlement environment. Therefore they arrange sufficient and well-accessible industrial sites, and strive after a good skilled working population and a good connection between education and labour market. The municipalities of Groningen also have a mutual organization, namely the society of the municipalities of Groningen. This cooperation of all municipalities of Groningen is aimed at the protection of interests and is a department of the Society of Dutch municipalities.

Objective 2 and 5b areas

Since 1989 East Groningen (the municipalities of Loppersum, Appingedam, Menterwolde, Scheemda, Reiderland, Veendam, Vlagtwedde, Bellingwolde and Stadskanaal, Groningen, Delfzijl and Hoogezand-Sappemeer) is eligible for objective 2 support from the EU Structural Funds (map 1.3). This area covers about 45% of Groningen. The area was selected as an objective 2 region because its industry is in decline. Some weaknesses exist in this area: it is highly dependent on small enterprises (99% of the enterprises have less than 100 employees), it has a low export quote and a high unemployment rate compared to the national level.

Since 1994 the municipalities of De Marne, Winsum, Zuidhorn, Bedum, Grootegast, Marum, Leek and Ten Boer (all in West Groningen) have been added as an objective 5b area (map 1.3). This area covers about 25% of Groningen. West Groningen has a strong rural character. During the last five years the population has considerably declined and aged. A relatively large share (12%) of the inhabitants is employed in the agricultural sector. The unemployment rate is higher than the national average. The liveability of the region declines because of the declining population and the disappearance of community, social and personal services services.



Map 1.3 Municipalities in Groningen

2. Analysis of local resources

2.1 Introduction

The basic idea of our research project RUREMPLO is that economic development, and particularly one of its components that is employment growth can be understood only at a disaggregated territorial level. Economic fundamentals, agents' behaviour and strategies express themselves in a specific geographical context that usually takes the form of a *local economy.* In this idea of a local economy, territory is by definition a basic economic resource. In a more realistic and complex sense, we should say that territory could be at the same time a resource and a handicap, an obstacle to economic activities and a resource mobility.

The aim of this chapter is to represent the regional endowments of territorial resources and handicaps to support the explanation of activities and behaviour that will be described and analysed in the following chapters.

2.2 Physical variables

We consider four categories: *land use*, *weather, mineral resources and water resources*. All these aspects represent relevant variables for economic development affecting directly or indirectly economic activities and behaviour of actors.

2.2.1 Land use

The area of Groningen covers about 3,000 km^2 (table 2.1), which is roughly 7% of the total Dutch area. About 65% of the area in Groningen is used for agriculture and 1% for forestry

Table 2.1 Some physical variables in Groningen, 1980-1994

Variable	1980	1985	1990	1994
Total area (km²)	2,967	2,967	2,967	2,967
Forest area (1,000 ha)	2 a)	3	4 b)	
Agricultural area (1,000 ha)	176	174	169	165
of which:				
- area with permanent crops (1,000 ha)	1	1	0	1
- area with permanent meadows (1,000 ha)	55	57	55	54
- area with arable crops (1,000 ha)	120	117	114	111
% LFA in agricultural area			2 c)	

a) 1979; b) 1989; c) 1989/1990.
Source: Eurostat Regio Database and EUROFARM/FSS; adaption LEI.

Table 2.2 Some physical variables in Groningen and other regions, 1990 (as % of total area)

Variable	Groningen	National		
		total	intermediate regions	most urban regions
Forest area (%) b)	1	7	4	10
Agricultural area (%)	57	49	48	49
of which a)				
- area with permanent crops (%)	0	2	1	2
- area with permanent meadows (%)	33	53	43	59
- area with arable crops (%)	67	45	56	39
% LFA in agricultural area c)	2	6	4	6

a) Expressed as percentage of agricultural area; b) 1989; c) 1989/90.
Source: Eurostat Regio Database and EUROFARM/FSS; adaption LEI.

(table 2.2). Other user functions of the area are housing (4%), traffic (3%) and nature (2%) (CBS/LEI, 1997). In the period 1983-1993 the agricultural area decreased by 10% (RuG, 1986 and 1996).

Groningen can be divided roughly into four agricultural regions; Southwest Groningen, Central Groningen, North Groningen and East Groningen. Southwest Groningen (also called the Southwestern quarter) mainly consist of pasturelands on sand/peaty soil. Dairy and intensive live stock are the most important agricultural activities. Central Groningen has a clayey soil. The most important agricultural activity is dairy. This in contrast to North Groningen, where there are almost no dairy activities. North Groningen can be divided in an area called the Oldambt and an area called the northern grow area (Hogeland). The northern grow area has a light clayey soil which is suitable for the production of potatoes and sugar beets. The Oldambt has a heavy clayey soil and consists mainly of arable farming (cereals). Some of the farms have intensive livestock as a second activity. East Groningen mainly consists of arable farming (starch potatoes) on sand soils and reclaimed moors (Provincie Groningen, Landbouwnota, 1994).

2.2.2 Weather

Groningen has a moderate maritime climate with relatively warm winters and cool summers. The average temperature per year, the number of sunshine hours and the amount of precipitation is a little below the averages for the Netherlands, but differences are marginal (table A2.1).

2.2.3 Mineral resources

In Groningen there is one of the largest gas deposits in the world, which produces about half of total Dutch gas production. The first large gas reservoir was discovered at Slochteren in 1960, and many more are now being exploited (Eurostat, 1993). Because of the gas revenues, the GDP per inhabitant is much higher in Groningen than in the Netherlands as a whole. When the gas revenues are not counted, the GDP per inhabitant in Groningen is even lower than in the Netherlands as a whole (Europese Commissie Bureau, 1995).

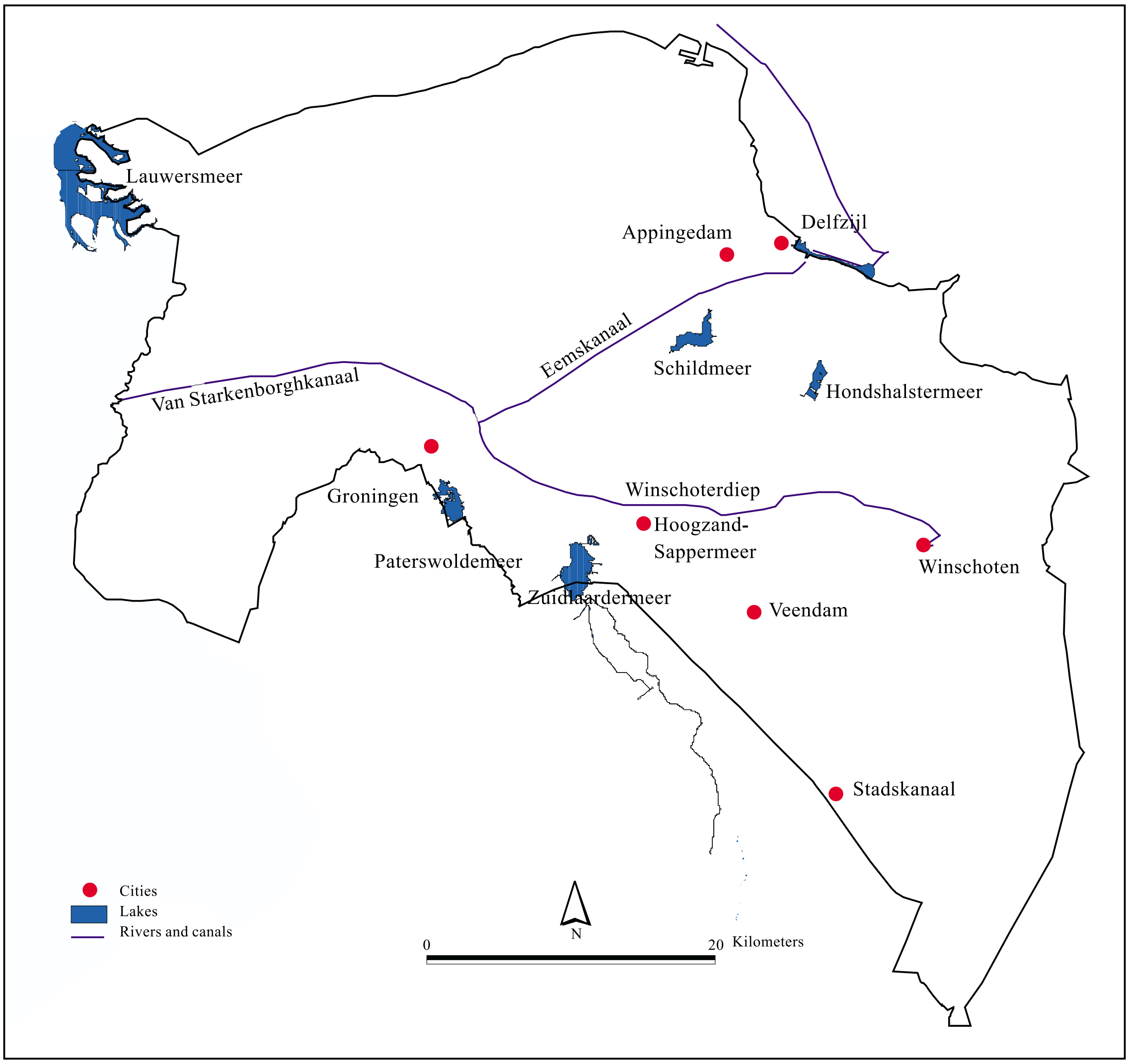
2.2.4 Water resources

The province of Groningen has two seaports (Eemshaven and Delfzijl) and two fishing ports (Lauwersoog and Termunterzijl). The port of Eemshaven is accessible for ships with a depth till 11 meters; the port of Delfzijl is accessible for ships with a depth till 9.2 meters. There are liners to Schiermonnikoog, Borkum (Germany), Hanko (Finland), Lomonosov, St. Petersburg (Russia), Piraéus, Thessaloniki (Greece) and Puerto Deseado (Argentina) (Provincie Groningen, 1996).

The development of the peat colonial area in Groningen involved the digging of canals. In former times these canals were used to transport peat, potatoes and cardboard to the city. Here the goods were used or transported to other locations (Europese Commissie Bureau, 1995). Nowadays the water way network in the Netherlands is divided into main transport axes, main waterways and other waterways. The Eemskanaal (from the port of Delfzijl to the city of Groningen) and the Van Starkenborgkanaal (from the city of Groningen to the province of Friesland) can be entitled as main waterways (map 2.1). The Aduarderdiep (from the city of Groningen to Aduarderzijl) and the Hoendiep (from the city of Groningen to the Van Starkenborgkanaal) have local functions for the opening up of local industry. The Noord-Willemskanaal (from the city of Groningen to Assen) and the Reitdiep (from the city of Groningen to the Lauwers lake) have also local functions. The other waterways in the province have mainly a recreational function (Provincie Groningen, 1994). The city of Groningen is accessible for ships till 2000 metric tons by the Eemskanaal. The canals to the province of Friesland, Veendam and Winschoten are navigable till 1,350 metric tons. The total length of the navigable canals in Groningen is 436 km.

2.3 Infrastructure resources

We define infrastructure resources as the set of services available on the territory that allows the connection between activities, agents and urban centres. This connection is fundamental to allow for efficient trade, mobility of resources and information exchange. Therefore, high infrastructure endowments and balanced distribution on the territory is a fundamental requisite for economic development and for the existence of efficient local and interregional markets. We consider only the stock of infrastructure (table 2.3 and A2.2), since the flow of services is considered in the chapter about economic activity; two relevant aspects are considered in this section: transportation and energy.



Map 2.1 Main waterways in Groningen

Table 2.3 Infrastructure endowments in Groningen and other regions, 1990

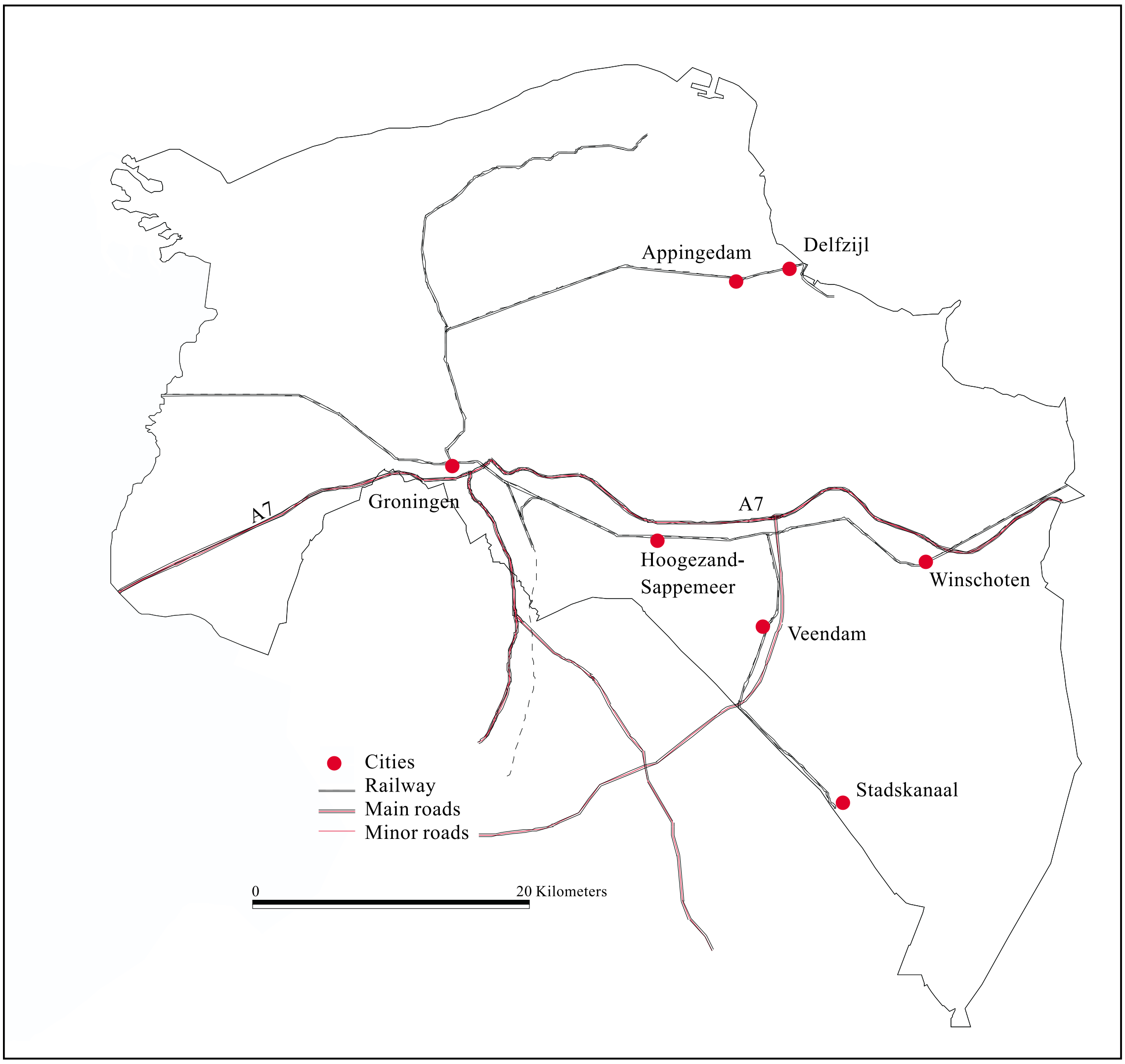
Variable	Groningen	National		
		total	intermediate regions	most urban regions
Motorways, density (M/Km² total area)	19	52	44	57
Other roads, density (M/Km² total area)	1,604	2,503	2,325	2,621
Railways, density (M/Km² total area) a)	64	69	33	92
Navigable canals and rivers, density (Km/total area)	0.15	0.09	0.08	0.08

a) 1985.
Source: Eurostat, Regio Database; adaption LEI.

2.3.1 Transportation

Roads

The important roads in the Netherlands can be divided as follows; E-roads, A-roads and N-roads. The N-roads are provincial roads and the A-roads are national four-lane roads that are connected to other national and international roads. A-roads and N-roads that cross the Dutch border are also called E-roads. Groningen has several N-roads, 2 A-roads (A28 and A7) which are also E-roads (E232 and E20) (map 2.2). The A7 goes from Amsterdam, over the 'Afsluitdijk', via the province of Friesland and Groningen, via Bremen (Germany) to Lübeck (Germany). The A28 is a connection between Utrecht, Zwolle and Groningen. The N33 is an important connection between Assen (capital city of Drenthe), Veendam and Delfzijl/Eemshaven. Table A2.3 shows distances (respectively in kilometres and in minutes) between locations in Groningen and to locations outside Groningen.



Map 2.2 Main roads in Groningen

Railways

There are 5 main railway lines in Groningen:

- a railway from Zwolle to Groningen. The travel distance between Zwolle and Groningen amounts to 60 minutes. This railway line directly connects Zwolle with other main destinations in the Netherlands. From Zwolle it takes about 1 hour and 10 minutes to reach Amsterdam and about 1 hour and 40 minutes to reach Rotterdam and The Hague by train;
- a railway from Groningen to Leeuwarden (capital city of the province of Friesland) with a travel distance of about 50 minutes;
- a railway from Groningen to Roodeschool (near the port of Eemshaven) with a travel distance of about 45 minutes;
- a railway from Groningen to Delfzijl with a travel distance of about 40 minutes;
- a railway from Groningen to Nieuweschans with a travel distance of about 50 minutes. After Nieuweschans, the railway crosses the border with Germany and goes to Bremen, Hamburg and Hanover.

The international rail connection to Germany is as follows:

- from Groningen to Hanover, crossing the border near Nieuweschans. It takes about 4 till 5 hours to reach Hanover;
- from Groningen to Bremen, crossing the border near Nieuweschans. This journey takes about 3 till 4 hours;
- from Groningen to Dortmund, which passes Oberhausen and crosses the border near Zevenaar (Gelderland). In the Netherlands the railway route is: Groningen - Zwolle - Arnhem - Zevenaar. The travel distance amounts about 4 hours and 15 minutes.

Groningen Airport Eelde

Groningen has one important regional airport, located 8 kilometres out of the border of the province, in Eelde (the province of Drenthe). Because the province of Groningen also finances this airport, it is called 'Groningen Airport Eelde'. The airport exists for 65 years and has grown from a small local airport to the regional airport of the north of the Netherlands. Besides the several holiday destinations (like Crete, Faro, Barcelona, Mallorca, Turkey and the Canary Islands), there are also scheduled flights between Groningen Airport Eelde and Amsterdam Airport Schiphol. On working days there are 7 flights and in the weekends 2 flights a day. The duration of the flight is about 30 minutes. Groningen Airport Eelde also offers business flights. The northern international enterprises use a large share of these flights. By now the airport has about 70,000 passengers a year and transports 3 million kilograms of airfreight. In 1984 the airport had about 31,000 passengers (Groningen Airport Eelde, 1985 and 1996).

Inland Container Terminal Veendam

In 1995 the Rail Service Centrum Groningen (RSCG) in Veendam has been opened. This is the largest inland container terminal of the Dutch railways. The RSCG is concentrated on the transfer of goods from roads on trains and vessels. Each year, 60,000 containers are processed.

This is not much compared to the transfer of Rotterdam. For that reason Veendam aims at added value activities. The RSCG takes care of the financial winding up of the container transportation. It has also customs facilities on its disposal. The RSCG is located at the route Rotterdam-Delfzijl/Eemshaven and is an important link in the intercontinental connection to North Germany, Scandinavia and the Baltic countries.

2.3.2 Telecommunications

The telecommunication facilities in the Netherlands (and so in Groningen) are good. Everyone can be connected to the telephone net and to Internet.

2.4 Urban structure and geographical position

We can represent a regional territory as a *network of services* that flow between nodes that are represented by firms or other centres of economic activities. Therefore, urban centres represent naturally main nodes in this network. In this section we want to study how urban structure is distributed in the regional territory and how people and economic activities agglomerate and evolve through time. Furthermore, we must take into account that local economies and markets are usually open economies highly influenced by activities and performance of neighbourhood regions. This is the issue of the geographical location of the region under study.

Concentration of population

The first 4 cities of Groningen are the city Groningen (171,000 inhabitants), Hoogezand-Sappemeer (34,000 inhabitants), Stadskanaal (33,000 inhabitants) and Delfzijl (31,000 inhabitants). In 1995 approximately 48% of the population lived in these cities (table 2.4). During the period 1980-1995 this percentage changed from 46% to 48%. In the other intermediate regions the percentage of people living in the first four cities is more or less the same, but in the most urbanized regions the concentration index is lower. This is due to the fact that there are a large number of urban centres in those regions.

Table 2.4 Concentration index in Groningen and other regions, 1990

Variable	Groningen	National		
		total	intermediate regions	most urban regions
Quota of population living in the first 4 towns (as % of total population	48	37	47	35

Source: CBS, Bevolking der gemeenten van Nederland op 1 januari 1996; adaption LEI.

Geographical location

Groningen is in the north of the Netherlands. At the northern border of Groningen is the Wadden Sea, at the western border the province of Friesland, at the southern border the province of Drenthe and at the eastern border the German region Weser-Ems. Friesland, Drenthe and Weser-Ems are classified - like Groningen - as intermediate rural regions. GDP/inhabitant in Groningen exceeded that in its neighbouring regions (table 2.5). However, as said before, the comparison with other regions is distorted by large revenues of gas in Groningen. Corrected figures (exclusive of gas revenues) for 1995 show that the national level of GDP/inhabitant (19,290 ecu) is above that of Groningen (17,840 ecu). The unemployment rate in Groningen is above the level of its neighbouring regions, during the period 1985-1995.

Table 2.5 Main characteristics of neighbouring regions of Groningen, 1980-1995

		1980	1985 a)	1990	1993 b)
Groningen c)	GDP/inhabitant (ecu)	16,942	27,302	18,265	22,227
	unemployment rate (%)		14.0	12.3	9.7
Drenthe c)	GDP/inhabitant (ecu)	8,245	11,656	13,308	14,539
	unemployment rate (%)		9.2	8.0	8.8
Friesland c)	GDP/inhabitant (ecu)	7,068	8,824	12,614	14,371
	unemployment rate (%)		12.0	9.3	8.5
Weser-Ems	GDP/inhabitant (ecu)	7,848	10,553	15,277	18,478
	unemployment rate (%)		10.6	6.3	7.9

a) Unemployment rate 1987; b) Unemployment rate 1995; c) All regions are classified as intermediate rural regions.
Source: Eurostat, Regio Database; adaption LEI.

Distance to big cities

The city of Groningen is the biggest city in Groningen (171,000 inhabitants). The nearest big cities with over 500,000 inhabitants are Bremen (550,000 inhabitants), Dortmund (602,000 inhabitants), Hanover (526,000 inhabitants) and Amsterdam (718,000 inhabitants). The distance to these cities is about 200 kilometres and the travel time by car is about 2 and a half hours.

Qualitative description of connections

The supply of motorway connections in Groningen is sufficient. In Groningen every place is good accessible. There are also enough motorway connections from Groningen to places outside the province. The railroad connections in Groningen are also sufficient.

2.5 Tourist and cultural resources

Under this heading a qualitative description of natural and cultural inheritances of the region, the environmental quality of the region and the tourist attractiveness of the region is given. Besides it is indicated whether there are other rural amenities in the region. A region territory and a local economy identifies not only a complex set of physical resources, economic activities and relations between agents and nodes of the network, but even a set of historical, cultural and natural characteristics that represents by themselves an important source of economic opportunities. Besides, an attractive place to live for employees can play a role in the settlement decision of entrepreneurs.

2.5.1 Tourist structures and attractiveness

Amenities

The main rural amenity of Groningen is its open landscape. In North Groningen there are some palatial farmhouses. In the past (up to the 1960s) gentlemen farmers who employed a large number of workers on their extensive farmlands occupied these farmhouses. Nowadays, the farmhouses still exist but are inhabited with 'regular' farmers. Other important amenities are the 'borgen', former houses of local chiefs. These are surrounded by moats, gardens and often situated near a village. Most of these borgen were built in the 15th and 16th century and were used for defence purposes. Nowadays, some of them can be visited.

Museums

In 1990 there were 30 museums in Groningen with a total amount of about 400,000 visitors. Nowadays the amount of museums has doubled. The most well known museum of the province is located in the city of Groningen and is called the 'Groninger museum'. This museum was opened in 1994 and had about 350,000 visitors in 1995.

Other important tourist attractiveness are a subtropic swimming pool in Veendam (315,000 visitors in 1995), the seal crèche in Pieterburen (300,000 visitors), the 'Martinitoren' (a tower in the centre of the city of Groningen), the island of Schiermonnikoog and a Chinese garden in the city of Haren.

Environmental quality

The environment of Groningen is in relatively good condition. Groningen has very little air pollution and hardly any soil acidification arising from intensive use of manure, since there is almost no intensive animal production. Industrial pollution is restricted, partly due to substantial investments in environmental protection in recent years, so that the most modern and cleanest technologies are being used. The canals are much less polluted now than previously (Eurostat, 1993).

The major threats to the environment of Groningen are mainly in the Wadden Sea. In the Wadden area, (which owes its unique nature to the tidal waters since large areas are drained when the tide ebbs) the ecological balance is unstable. Any manmade interference with this balance has repercussions on the area. The Wadden Sea is still the only place in Europe where there is a large population of seals. The Groningen provincial authorities together with other provinces, the national government and the German and Danish authorities, have drawn up stringent regulations to protect the seals and the fauna (Eurostat, 1993).

Accommodation establishments and overnight stays

Groningen had the smallest number of accommodation establishments (63) within the group of intermediate regions in the Netherlands in 1995 (table 2.6). In the most urbanized regions the number of accommodation establishments usually amounted to 300 or more in 1995. The number of overnight stays in Groningen amounted to 0.6 million in 1995, about 1% of total overnight stays in the Netherlands. During 1989-1995 there was a small increase from 0.5 million to 0.6 million overnights stays (table 2.7).

Table 2.6 Accommodation establishments and overnight stays in Groningen, 1989-1995

	1989	1991	1995
Number of accommodation establishments	-	-	63
Number of overnight stays in accommodation establishments	0.5	0.6	0.6

Source: Tourisme in Nederland, 1995; adaption LEI.

Table 2.7 Accommodation establishments and overnight stays in Groningen and other regions,1995

Variable	Groningen	National		
		total	intermediate regions	most urban regions
Number of accommodation establishments	63	3,238	-	2,449
Number of overnight stays in accommodation establishments	0.6	61.9	16.4	45.4

Source: Tourisme in Nederland, 1995; adaption LEI.

2.5.2 Education and research opportunities

Schools

Groningen has a good supply of education opportunities. All types of education are there, including a university. The University holds a staff of 5,000 people. Together they teach a student population of nearly 18,000 in more than 50 fields of study, and are responsible for some 600 trainee research assistants who are working on their Ph. D. theses. Table A2.4 shows the number of different education types. The number of most education opportunities has decreased during the last decade. This is not so much due to closings but to the mergers of schools, an overall feature in the Netherlands.

Research institutes

In addition to the University of Groningen, Groningen has various research centres, including a biomedical technological centre, a biotechnological centre, a telematics laboratory, a centre for research into new materials, a centre for technological innovation and a nuclear physics accelerator institute.

3. Analysis of economic activities

3.1 Introduction

In this chapter the pattern of employment growth is analysed in more detail by using a division in 9 main branches of employment. These branches also provide information on the kind of economic activities in Groningen. In this chapter attention is also paid to questions like whether employment is created in small or large enterprises or in new or existing ones, and whether new created jobs are part time or full time jobs. Finally, some main characteristics of the agricultural sector are discussed.

3.2 General economic performance

GDP per capita in Groningen amounted to about 18,300 ecu in 1990 (table 3.1), which was about 3,400 ecu above the average of the intermediate regions and about 3,300 ecu above that of the most urban regions in the Netherlands (table 3.2). The high GDP per capita in Groningen is a result of the inclusion of gas revenues. When GDP per capita is corrected for this it is 17,840 ecu (in 1995) and about 8% below the national level of 19,290 ecu in 1995. The share of agriculture in regional income in Groningen fluctuated in a range from 2-4% in the period 1980-1994, which is more or less comparable with the urban regions, but below the share in the intermediate regions. The share of industry in regional income in Groningen has declined from 75% in the mid 1980s to 47% in 1994; whereas the share of services increased from 25% to 50% in these years. The share of industry in regional income in Groningen was very high in the mid 1980s. This is probably due to the fact that the gas revenues were counted in the industry branch in those years. Nowadays, most figures are exclusive of gas revenues. The share of services in regional income in Groningen is below the other intermediate regions and far below urban regions. These different shares reflect differences in the economic structure between intermediate and urban regions: in urban regions the share of agriculture and industries in total employment is below and that in services above those in the intermediate regions.

In 1990 the unemployment rate (12%) in Groningen was clearly above the average rate in the most urban regions and intermediate regions, reflecting a situation of a structural shortage of jobs (Sijtsma, 1997). GDP in Groningen declined by nearly 2% per year in the period 1980-1993, while other intermediate regions had a small positive growth (0.1%) and the most urban regions an increase of 2%.

Table 3.1 GDP per capita, GVA per worker and the shares of sectors in income and employment in Groningen, 1980-1995

Variable	1980	1983	1985	1990	1994
GDP per capita	16,942		27,302	18,265	22,227 a)
GVA per worker (place of residence)		65,790	78,436	45,479	51,000
GVA per worker c)	49,892		88,871	43,584	36,545
Share agriculture in regional income (%)	3	2	2	4	3
Share industries in regional income (%)	69	72	75	50	47
Share services in regional income (%)	28	25	23	46	50
Share agriculture in employment (%) c)	7		7	4	
Share industries in employment (%) c)	33		29	26	
Share services in employment (%) c)	59		64	69	
Unemployment rate (%)				12	10 b)

From 1985/86 another definition of employed people has been used in the statistics.
a) 1993; b) 1995; c) measured at the place of work.
Source: Eurostat, Regio Database; adaption LEI.

Table 3.2 GDP per capita, GVA per worker and unemployment rate in Groningen and other regions, 1990

	Groningen	National	Intermediate	Most urban
GDP per capita	18,265	14,936	14,567	14,998
GVA per worker (place of residence)	45,479	33,523	34,963	32,808
GVA per worker a)	43,584	33,094	34,254	32,425
Share agriculture in regional income (%)	4	4	7	4
Share industries in regional income (%)	50	30	39	27
Share services in regional income (%)	46	66	54	69
Share agriculture in employment (%) a)	4	5	7	4
Share industries in employment (%) a)	26	26	28	26
Share services in employment (%) a)	69	69	65	69
Unemployment rate (%)	12	7	9	7

a) Measured at the place of work.
Source: Eurostat, Regio Database; adaption LEI.

Table 3.3 Development of employment (place of work) in Groningen and some other regions, 1980-1991, % p.a.

	Groningen	Drenthe	Friesland	National
Total employment	0.0	0.6	0.2	0.7
Non-agricultural employment	0.0	1.1	0.2	0.7
Agricultural employment	0.3	-4.3 a)	-0.2	0.2
Industrial employment	-1.9	-1.2	-3.4 a)	-1.3
Service employment	1.4	1.5	0.7	1.2

a) These figures are unlikely low.
Source: Eurostat, Regio Database; adaption LEI.

Total employment, measured at the place of work did not increase in the years 1980-1991, while total employment growth in Drenthe, Friesland showed a small increase (table 3.3). According to this data source, employment in agriculture increased somewhat. Industrial employment in Drenthe decreased a little more compared to Drenthe and the national average, whereas service employment increased more or less at the same rate as in Drenthe, but at a higher rate than in Friesland and the Netherlands as a whole.

3.3 Demand of labour

Initial conditions and dynamics in the production structure define the regional path of labour demand. Within the production structure there are branches with job creation and branches with job destruction. Forces behind changes in labour demand may originate from a rise in GDP per capita, productivity growth, structural changes, wage structure and integration between sectors. A rising GDP per capita is basically the traditional idea behind an increase in employment. Productivity growth implies that the same production can be obtained by fewer workers. Productivity growth and its differential between sectors are critical points: if growth in demand lags behind growth in productivity, a clear contraction in labour demand occurs. A structural change between the sectors means a changing role and weight of different sectors. When for example the service sector has increasingly gained importance, being a sector with lower productivity and being based on human capital, this sector turns out to be a strategic one for employment growth. Within sectors, structural change means change in average size of firms and farms, which can result in changes in the ratio between capital and labour. Wage structure and wage dynamics can provide information about the incentive to substitute labour with capital. The integration between sectors, like firms' networks, and specialization, can be relevant in producing positive externalities at a local level.

For the analysis of demand of labour at sector and at more detailed branch level we have used the so-called 'SBI 74', a Dutch classification of 9 main branches and 51 sub branches (table 3.4). The analysis covers the period 1984-1995 and is based on data on employment at the place of work.

Branches with job creation and branches with job destruction

Employment in Groningen increased by 40,500 jobs in the period 1984-1995, but there was also a decrease of 4,600 jobs. So total net employment in Groningen increased by 35,900 jobs or by 25% (table 3.4). Nearly 40% of employment growth occurred in the community, social and personal services sector, 30% in the financial services sector, 13% in the manufacturing sector, 12% in the trade, restaurant and hotel sector, 7% in the transport sector and 4% in the construction sector. Except for agriculture (-1,300 jobs), losses of employment occurred mainly in the electronic industries (about 1,400 jobs), the electricity, gas and water branch (almost 700 jobs) and in food processing industries (about 500 jobs). When the period 1984-1995 is divided in the periods 1984-1990 and 1990-1995 it is obvious that most of employment growth was created in the first period (table 1.1).

Table 3.4 Employment growth in Groningen in the different branches, 1984-1995

SBI 74		Employed people a) 1984	Employed people a) 1996	Absolute growth	% growth	Growth as % of total
0	*Agriculture, hunting, forestry and fishing*	*10,189*	*8,910*	*-1,279*	*-13*	*-4*
1	*Mining and quarrying*	*1,519*	*1,534*	*15*	*1*	*0*
2/3	*Manufacturing*	*29,122*	*33,775*	*4,653*	*16*	*13*
20-21	Food and stimulant	5,423	4,930	-493	-9	-1
22-24	Textile industries, wearing apparel industries, leather industries	1,022	715	-307	-30	-1
25	Wood, and wood products, including furniture	965	1,446	481	50	1
26	Paper and paper products	2,128	2,301	173	8	0
27	Printing and publishing	2,503	2,734	231	9	1
28-31	Chemical industries	3,329	3,804	475	14	1
32	Building, earthenware, and glass industries	1,288	1,669	381	30	1
33	Basic metal industries	842	1,017	175	21	0
34	Fabricated metal product industries	2,595	3,066	471	18	1
35	Machinery industry	2,575	2,214	-361	-14	-1
36	Electronic industry	3,737	2,299	-1,438	-38	-4
37	Means of transport industry	1,556	1,541	-15	-1	-0
38-39	Other manufacturing industry	1,159	6,039	4,880	421	14
4	*Electricity, gas and water*	*2,448*	*1,771*	*-677*	*-28*	*-2*
5	*Construction*	*11,711*	*13,077*	*1,366*	*12*	*4*
6	*Trade, restaurants and hotels*	*23,404*	*27,845*	*4,441*	*19*	*12*
61-62	Wholesale	5,850	7,090	1,240	21	3
63-64	Agents in trade	104	89	-15	-14	-0
65-66	Retail	13,336	15,034	1,698	13	5
67	Hotel and catering industry	2,929	3,924	995	34	3
68	Repair industries for durable goods	1,185	1,708	523	44	1
7	*Transport, storage and communication*	*9,701*	*12,347*	*2,646*	*27*	*7*
8	*Finance, insurance, real estate and business services*	*10,276*	*21,148*	*10,872*	*106*	*30*
9	*Community, social and personal services*	*46,266*	*60,094*	*13,828*	*30*	*39*
90	Public management, defense, social insurance	11,055	12,257	1,202	11	3
92	Educational services	12,912	15,197	2,285	18	6
93	Medical, dental, other health and veterinary services	11,315	15,215	3,900	34	11
91,94-98	Other services	10,984	17,425	6,441	59	18
	Total employment	*144,636*	*180,501*	*35,865*	*25*	*100*

a) People who work more than 15 hours or more a week.
Source: Statistisch Jaarboek voor het Noorden, 1986 and 1996; adaption LEI.

In a more detailed look at the sub branches, it can be seen that 70% of the employment growth is created in 15 sub branches (table 3.5). The so called 'other' services (including religious organizations, social services, social and cultural institutes, sports and recreational services and business and employers organizations) and 'other' manufacturing industry (this includes the instruments and optical industry branch) show the largest increase, respectively 6,440 and 4,880 jobs, that is 18% and 14% of total increase. Another sub branch with a significant rise in employment is the medical, dental, other health and veterinary services branch with 11% of total increase. When the finance, insurance, real estate and business services branch was subdivided, the sub branch business services would be in the top 3 (Sijtsma, 1995 and Stelder and Van Dijk, 1997).

Table 3.5 Top 15 of branches with the highest employment growth, 1984-1995

	Abs. growth	% growth
Other services a)	6,441	18
Other manufacturing industry b)	4,880	14
Medical, dental, other health and veterinary services	3,900	11
Educational services	2,285	6
Retail	1,698	5
Wholesale	1,240	3
Public management, defense, social insurance	1,202	3
Hotel and catering industry	995	3
Repair industries for durable goods	523	1
Wood, and wood products, including furniture	481	1
Chemical industries	475	1
Fabricated metal product industries	471	1
Building, earthenware, and glass industries	381	1
Printing and publishing	231	1
Basic metal industries	842	0
Total employment of the above 15 branches	18,762	52
Total employment	35,865	100

a) Including religious organisations, social services, social and cultural institutes, sports and recreational services, business and employers organisations and other service firms; b) including instruments and optical industry.
Source: RuG, 1996 and 1985; adaption LEI.

70% of employment growth concentrated three municipalities

The municipality of Groningen had the largest share of total employment growth (46%) during the years 1991-1996, followed by Veendam (11%), Delfzijl (11%) and Bedum (10%). So the first three municipalities have a share of almost 70% of total employment growth in Groningen. This reflects a concentration of employment growth in Groningen, particularly in the municipality of Groningen.

Properties of the branches in which employment increased

The different branches can be classified according to properties like exposure or less exposure to global markets, fluctuating or stable markets and labour intensive or labour saving. We have intuitively classified our list of branches as follows:

Classification of main branches		Globality of markets	Volatility of markets	Nature of labour use
1.	Agriculture, hunting, forestry and fishing	GlobM	StabM	LabS
5.	Mining and quarrying	GlobM	FlucM	LabS
10.	Manufacturing	GlobM	FlucM	LabS
20.	Electricity, gas and water	LGlobM	StabM	LabS
23.	Construction	LGlobM	StabM	LabI
24.	Wholesale and retail trade, restaurants and hotels	LGlobM	StabM	LabI
29.	Transport, storage and communication	GlobM	StabM	LabI
32.	Finance, insurance, real estate and business services	GlobM	FlucM	LabI
38.	Community, social and personal services	LGlobM	StabM	LabI

GlobM: branch exposed to global markets;
LGlobM: branch less exposed to global markets;
FlucM: markets with fluctuating prices;
StabM: markets with stable prices;
LabI: branches with a relatively slow growth in labour productivity;
LabS: branches with a relatively rapid growth in labour productivity.

Within the years 1984-1995 about 55% of employment growth occurred in the community, social and personal services sector, the trade, restaurants and hotels sector and the construction sector. These sectors are characterized by a limited exposure to global markets, relatively stable prices and a rather labour intensive production. Two other branches with an important contribution to employment growth are the financial sector (30%) and the manufacturing sector (13%), which are both exposed to global markets and fluctuating prices. The production process of these sectors varies: the financial sector is labour intensive and the manufacturing sector labour extensive. It goes without saying that the larger share of employment is created in sectors with a labour intensive way of production, since capital intensive sectors tend to save labour input.

Relation employment growth and change in labour productivity

In a coordinate system with employment growth on the Y-axis and a rise in labour productivity (measured as GVA per worker) on the X-axis, it can be indicated whether an increase in jobs is accompanied by a rise in labour productivity or not. This depends on the appearance of structural changes. We examine in which quadrant the regions were located during the last decade in order to discuss which kind of employment can be created in rural regions: jobs with an average growth of labour productivity or jobs with an above average growth of labour productivity.

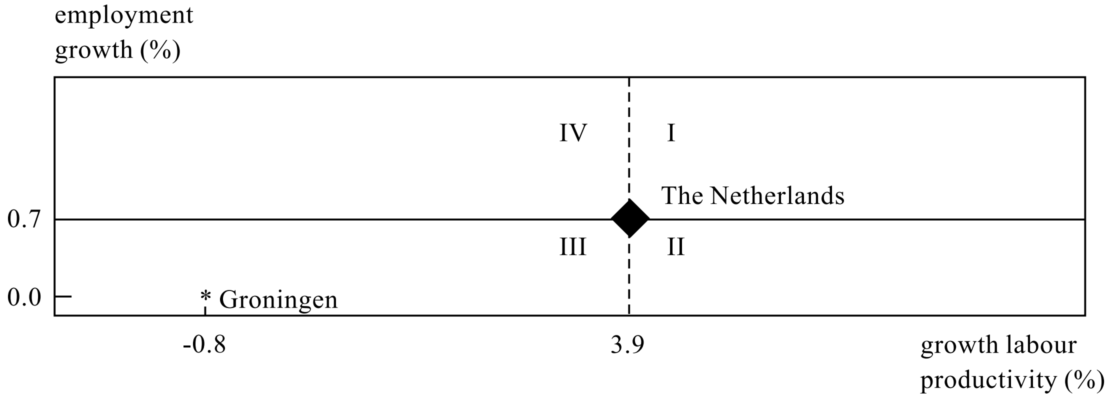


Figure 3.1 Relation of employment growth and increase in labour productivity, 1981-1991

In the 1980s employment in Groningen increased at a lower rate than the national average. Labour productivity declined in this period, so Groningen is located in quadrant III (figure 3.1). The fact that labour productivity lagged behind the national average can be explained by the creation of many new jobs in the services sector, which uses relatively few capital inputs.

Employment pattern in Groningen versus national employment pattern

In the Netherlands, as in other EU countries, there are four structural changes concerning employment (De Koning et al., 1996):

- the number of low qualified jobs is diminishing and the number of high qualified jobs is increasing;
- lower educated employees are being replaced by higher educated employees;
- most new jobs created in the 1990s are part time;
- there is a general tendency of a decrease in employment in agriculture and industry and an increase in services.

For a comparison with the Dutch employment pattern, data from the labour force survey from the Central Bureau of Statistics has been used. These data differ from those in table 3.4 and 3.5. According to this data, in the period 1987-1994 employment in the manufacturing sector in Groningen was rather stable, whereas that in the Netherlands as a whole declined. (table 3.6). Employment in the trade and community, social and personal services sectors showed a stronger increase in the Netherlands as whole than in Groningen, while employment in the transport and financial sectors increased more in Groningen.

Diversification of economic activities

Diversification or specialisation of the regional economy can be either interpreted as favourable or unfavourable to employment growth. The specialisation in a few sectors can create a critical mass of marketing infrastructure and services, know how, and other external economies in the region that can sustain development and, hence, employment in these specific sectors. In contrast, diversification in several sectors can minimize risk and

Table 3.6 Employment pattern in Groningen versus national employment pattern, 1987-1994 (x 1,000)

	Total labour force in Groningen	1987	1994	Abs. growth	% growth
0	Agriculture, hunting, forestry and fishing	9	7	-2	-22
1	Mining and quarring	.	.	.	.
2-3	Manufacturing	37	36	-1	-3
4	Electricity, gas and water	.	.	.	.
5	Construction	11	11	0	0
6	Trade, restaurants and hotels	30	31	1	3
7	Transport, storage and communication	10	13	3	30
8	Finance, insurance, real estate and business services	12	17	5	42
9	Community, social and personal services	71	74	3	4
Unknown		.	.	.	.
Total		185	194	9	5
	Total labour force in the Netherlands				
0	Agriculture, hunting, forestry and fishing	249	236	-13	-5
1	Mining and quarring	13	10	-3	-23
2-3	Manufacturing	1,036	1,021	-15	-1
4	Electricity, gas and water	50	47	-3	-6
5	Construction	365	387	22	6
6	Trade, restaurants and hotels	908	1,096	188	21
7	Transport, storage and communication	324	383	59	18
8	Finance, insurance, real estate and business services	506	672	166	33
9	Community, social and personal services	1,744	2,012	268	15
Unknown		63	55	-8	-13
Total		5,257	5,920	663	13

Source: CBS, EBB.

facilitate the endogenous development of the region. Depending to what extent the region is able to take advantage of its orientation (specialisation versus diversification), specialisation as well as diversification can be viewed as a strength.

The sectoral structure of Groningen of the nine main sectors (the electricity and mining sector are included in the manufacturing sector) is shown in the figures 3.2 and 3.3 for 1984 and 1995. During the period 1984-1995 the share of the sectors did not change much. There was a small decrease in the agricultural sector, the manufacturing sector, the construction sector and the trade sector. The transport sector kept about the same while there was a small increase in the community, social and personal services sector and a considerable increase in the finance, insurance, real estate and business sector in this period. In 1995 the community, social and personal services sector had a higher share of employment relative to the national level. This is due to the sizeable employment of the University of Groningen and other important educational establishments. The agricultural sector and industry sector had an employment share that was a bit higher than the national employment share in these sectors. The transport and construction sectors in Groningen have about the same employment share as the national employment share. The remaining sectors are somewhat less represented in Groningen relatively to the national level.

The sectoral structure is roughly the same as the national one, so the sectoral mix is no explanation for the lagging behind in employment growth of Groningen. Also, the sectoral structure of Groningen does not differ enough from the national sector structure to speak about specialization. However, within municipalities in Groningen there is some specialization: the city of Groningen is a centre for services, Delfzijl is mainly a site for chemical industry and Veendam mainly relies on transport and distribution activities.

Largest part of employment is created in enterprises

For examining whether employment in Groningen is created in enterprises or by self-employers, only recent data (for the period 1994-1996) has been used because the reliability of data for Groningen for the period before 1994 (the period 1987-1994) is doubtful. Employment growth in Groningen is mainly created in enterprises (86% of total growth) during the period 1994-1996 (CBS, Labour Force Survey). For the Netherlands as a whole this distribution is about the same.

Size class of enterprises in 1996

In Groningen 27% (over 50,000 jobs) of total employment was concentrated in small firms (0-10 employees), 36 % (over 66,000 jobs) in medium sized firms (10-100 employees) and 37% (70,000 jobs) in large firms (>100 employees). The retail branch had the highest number of jobs in small firms. In the manufacturing sector and health and welfare services sector most jobs are in large firms. Jobs in the business services sector are spread over all the size classes, but small firms are more represented (Stelder and Van Dijk, 1997).

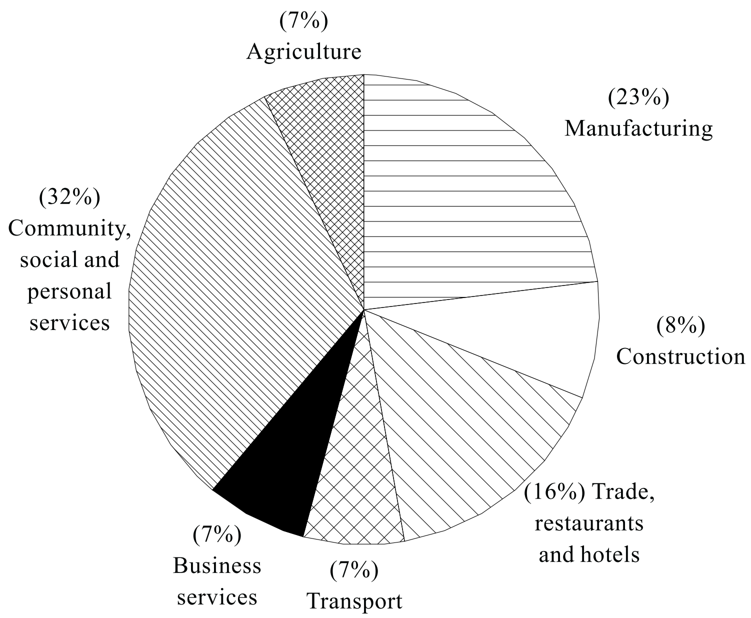


Figure 3.2 Sectoral structure of Groningen in 1984

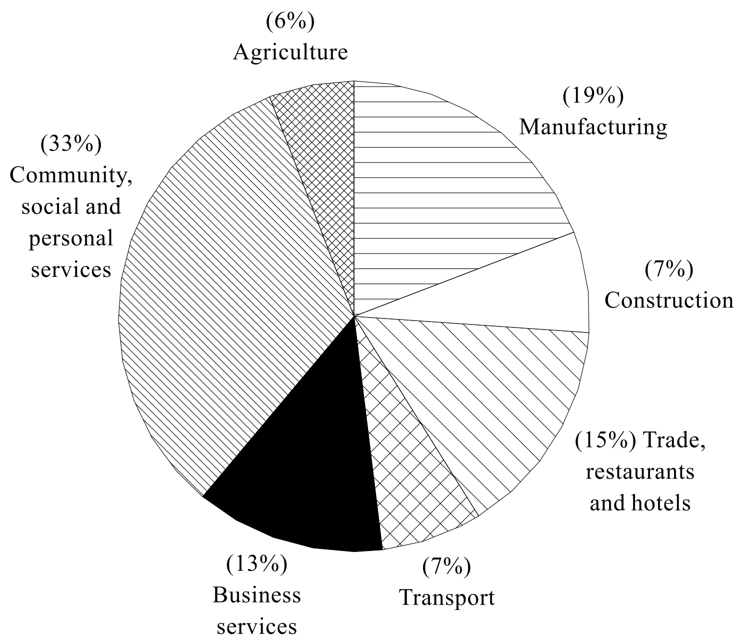


Figure 3.3 Sectoral structure of Groningen in 1995

Most enterprises in Groningen are small or medium sized

As shown in table 3.7 about 93% of the firms in Groningen in 1995 have 1 till 9 employed persons, 6% have 9 till 50 employed persons and only 1% has 50 or more employees. In the

Netherlands as a whole these percentages are about the same, and there are almost no differences between intermediate regions and most urban regions. Besides, the percentages do not vary much during 1987-1995.

Table 3.7 Size of enterprises (in number of employed persons), 1987-1995

Variable	1987	1995	Number in 1990	
			national	intermediate
Number of enterprises by classes of employed persons				
till 9 persons				
number	16,204	21,558	578,062	71,281
as % of total of all classes	92	93	92	92
9-50 persons				
number	1,119	1,373	41,956	5,420
as % of total of all classes	6	6	7	7
50 and more persons				
number	220	276	8,471	933
as % of total of all classes	1	1	1	1

Source: NV Databank and Kamers van Koophandel en Fabrieken.

Subsidiary business

About 7% of all companies were registrated as subsidiary business in 1996 (cd rom KvK). This percentage varies between 5 and 7% in all Dutch provinces, so Groningen is at an average level. Large multinational companies with over 500 employees belong to this group of subsidiaries, like Akzo Nobel Chemicals (Delfzijl) and Philips Semiconductors (Stadskanaal). These companies are active in the manufacturing sector.

Increase in employment in the community, social and personal services sector

The share of the community, social and personal services sector (i.e. community, social and personal services) in total employment slightly increased from 32% in 1984 to 33% in 1995 (table 3.4). So employment in the community, social and personal services sector increased at more or less the same pace as the average growth of employment in Groningen. In absolute terms the employment in the community, social and personal services sector covered about 46,300 jobs in 1984 and 60,100 jobs in 1995. In 1995 the largest number of jobs were in the medical and health services and educational services (both 15,200 jobs) and in public management, defence and social insurance (12,200 jobs).

Most employment is created in existing enterprises

The total balance of jobs in new and closing companies during 1992-1996 was about 3,400 jobs, which equals to about 40% of total growth of jobs during these years. This balance is composed of jobs due to establishments (16,400 jobs) minus losses of jobs due to closings (13,000). It has to be noted that this net increase includes companies which changed their juridical base or who merged with other companies. An annual average of 2,750 enterprises was established during the period 1992-1996 in Groningen, from which about 70% were starting companies. During these years there was also an annual average of 1,350 closing enterprises. This resulted in an annual average net increase of 1,400 enterprises and 700 jobs (Kamer van Koophandel, 1992-1996).

In Groningen there were relatively less establishments and closings than nation-wide. Hence the growth of the total number of companies was relatively smaller in Groningen than in the Netherlands as a whole. This moderate growth rate nevertheless resulted in a relatively stronger increase in employment per capita than nation-wide. Per 10,000 inhabitants the enterprise changes in the period 1992-1996 led to an average growth of 12 jobs per annum in Groningen against 11 jobs nation-wide (table 3.8) (Kamer van Koophandel, 1992-1996). As shown in table 3.9 the municipality of Groningen had the largest number of companies of all municipalities in Groningen during the period 1992-1996 (Kamer van Koophandel, 1992-1996).

Table 3.8 Annual average of mutations of enterprises in Groningen, Drenthe and the Netherlands, 1992-1996

	Drenthe annual average	Groningen annual average	the Netherlands annual average
Starting enterprises	1,161	1,966	51,947
per 10,000 inhabitants	*26*	*36*	*34*
Jobs	1,126	2,071	55,084
per 10,000 inhabitants	*25*	*37*	*36*
Total establishments	1,758	2,763	86,982
per 10,000 inhabitants	*39*	*50*	*57*
Jobs	1,984	3,279	100,002
per 10,000 inhabitants	*44*	*59*	*65*
Closing enterprises	804	1,344	41,542
per 10,000 inhabitants	*18*	*24*	*27*
Jobs	1,284	2,601	82,760
per 10,000 inhabitants	*29*	*47*	*54*
Balance of establishments	954	1,418	45,440
per 10,000 inhabitants	*21*	*26*	*30*
Jobs	700	678	17,243
per 10,000 inhabitants	*16*	*12*	*11*

Source: Kamer van Koophandel, 1992-1996.

Table 3.9 Annual average of mutations of enterprises in the five main cities of Groningen, 1992-1996

	Groningen	Hoogezand Sappemeer	Stadskanaal	Delfzijl	Veendam
Total establishments	1,165	167	135	126	130
per 10,000 inhabitants	*68*	*49*	*41*	*41*	*46*
Closing enterprises	301	101	59	58	59
per 10,000 inhabitants	*33*	*20*	*22*	*22*	*27*
Balance of establishments	605	98	62	57	54
per 10,000 inhabitants	*36*	*29*	*19*	*18*	*19*

Source: Kamer van Koophandel, 1992-1996.

Part-time and full-time jobs

As shown in table A3.1 during 1987-1994, all net employment growth in Groningen was created in part-time jobs. About 35% of the increase in all part-time jobs was created in the community, social and personal services sector, followed by the finance, insurance, real estate and business services sector (about 25%). In the Netherlands as whole part-time jobs were responsible for about 55% and the full-time jobs for about 45% of total employment growth (table A3.2). Part-time jobs in the Netherlands mainly increase in the community, social and personal services sector and in trade, restaurants and hotels sector, whereas fulltime jobs mainly increased in the finance, insurance, real estate and business service sector, followed by the trade, restaurants and hotels sector. So the conclusion can be made that part-time jobs in Groningen are more important for employment growth as in the Netherlands as a whole.

3.4 Agricultural sector and agribusiness

Crop production accounts for about 45% and animal production for about 55% in total production (table 3.10). There is a steady decline in cereal production, which was during the last years due to the Mac Sharry reform.

The percentage of part time farm holders (33%) in Groningen is about the same as the national level, whereas the rate of pluriactive farm holders (18%) is lower than the national level (table A3.3). However, compared to the neighbouring intermediate regions of Friesland and Drenthe, both the rates of part time and pluriactive farm holders are slightly higher. Nearly 30% of the farm holders is younger than 45 years; this percentage is comparable to the other Dutch regions. The economic size of farms in Groningen is about the same as the Dutch average size.

Table 3.10 Composition of agricultural production in Groningen in % (1982-1993)

Variable	1982	1985	1990	1993
Total agricultural production				
- in mln ecu (current prices)	498	529	535	538
- in mln NLG (current prices)	1,302	1,328	1,237	1,169
- in mln NLG (prices of '1990')	1,280	1,274	1,261	1,321
Crop production (%)	43	42	48	45
Of which cereals (%)	11	8	9	7
Animal production (%)	57	58	52	55
Of which cattle (%)	11	11	9	11
- pigs (%)	4	5	5	4
- milk (%)	33	34	30	32

Source: Eurostat REGIO and Eurostat Agricultural Income; adaption LEI.

3.5 Concluding remarks

Although total employment in Groningen increased during 1980-1996, its growth lagged behind that in the intermediate rural regions and urban regions in the Netherlands. The period 1981-1995 can be divided into three subperiods. During 1981-1984 employment decreased sharply by about 5% per annum. In the years 1985-1990 a period of rapid recovery started with an annual employment growth of 3%; in the 1990s employment growth slowed down to about 0.5 % per annum. The sectoral mix does not explain the moderate employment growth in Groningen, as this does hardly differ from that for the country as a whole.

Total employment in Groningen increased by 35,900 jobs to 180,500 jobs, or with one quarter in the period 1984-1995. Nearly 40% of employment growth occurred in the community, social and personal services sector, 30% in the financial services sector, 13% in the manufacturing sector and 12% in the trade, restaurant and hotel sector. The increase in employment mainly consisted of part time jobs. Except for agriculture (-1,300 jobs), losses of employment occurred mainly in the electronic industries (about 1,400 jobs), the electricity, gas and water branch (almost 700 jobs) and in food processing industries (about 500 jobs).

About 70% of employment growth was concentrated in the municipalities of Groningen, Veendam and Delfzijl, which form a corridor from west to east in the region. New jobs in enterprises contributed to the largest part of employment growth; self employment played only a minor role in employment growth. In the early 1990s newly established enterprises accounted for about 40% of all new jobs.

4. Actors: analysis of labour supply

4.1 Introduction

In this chapter the characteristics of the population and the labour force in Groningen will be analysed. These include the skills formation, the age structure, the gender structure and work flexibility [1].

4.2 General population characteristics

In the 1980s the population remained stable at 554,000 persons, while in 1990-1996 it increased from 554,000 to 558,000 persons, which implies a small growth in the 1990s (table 4.1). These figures are below the national average growth rate of 0.6% in these periods and the growth rates for other intermediate and urban regions. In line with the stable population, the density hardly increased and amounted to 185 persons per km^2 in 1995, which is above the average population density of intermediate regions (130) [2].

Table 4.1 Population in Groningen and other Dutch regions, 1980-1996

	Groningen	National	Intermediate	Most urban
Population size (x 1,000):				
1980	554	14,090	1,904	12,186
1990	554	14,891	2,162	12,729
1996	558	15,494	2,268	13,226
Annual growth rate (%)				
1980-1996	0.04	0.6	1.1	0.5
1980-1990	0.00	0.3	0.8	0.3
1990-1996	0.12	0.2	0.3	0.2

Source: Eurostat, Regio Database; adaption LEI.

[1] The used data are from Eurostat, Regio Database, excluding if there are other sources mentioned.
[2] It might be asked to what extent the measured population density shows the opportunities and constraints of the area, because the total surface includes also areas that are impossible or forbidden for residence objectives (wood, natural and water areas). Inclusion of those areas reduces the population density. Since Groningen and Drenthe have a relative small surface of those areas, they have a higher population density than intermediate areas where water areas are more important (Groningen consists of 25% wood, natural and water areas, Drenthe 16%, Friesland 48%, Flevoland 37% and Zeeland 43%, CBS Bodemstatistiek 1993).

Trends in the age structure of the population in Groningen between 1981 and 1995 are a decrease in people younger than 25 years (from 39% to 32%), an increase in people between 25 and 54 years (from 38% to 45%) and a stable number of people older than 55 years (22%), similar to the average of other regions in The Netherlands (table 4.2). The dependency index {[0-14]+[>=65]}/[15-64} in Groningen was lower (44) than that of intermediate regions and similar to that of urban regions. The lower dependency index might be attributed to the fact that a number of retired and old-aged people move to the neighbouring province of Drenthe, which they consider a more favourable residence area (CBS 1996) [1]. Consistent with the other intermediate regions, the vitality index [25-44]/[>=65] was lower in Groningen than in the urban regions. In Groningen, the vitality index increased from 227 in 1981 to 246 in 1985 and decreased to 236 in 1995.

Table 4.2 Age structure of population in Groningen and other Dutch regions (in % of total population), 1981-1995

	Groningen			National	Intermediate	Most urban
	1981	1990	1995	1990	1990	1990
0-14 years	20	16	17	17	18	17
15-24 years	19	19	15	17	17	17
25-34 years	17	17	17	17	16	17
35-44 years	11	15	15	16	16	16
45-54 years	10	11	13	12	11	12
55-64 years	10	9	9	9	9	10
>= 65 years	12	13	13	12	13	12

Source: Eurostat, Regio; adaption LEI.

While in the 1980s the zero population growth was based on a positive natural balance (births-deaths) and a negative migration balance (immigration-emigration), in the 1990s both the natural balance and migration balance became positive and contributed to the small growth of the population in Groningen. In 1995 3.0% of the population (16,700) immigrated to Groningen and 2.9% of the population (16,200) emigrated to other regions. The number of immigrants exceeded the number of emigrants mostly in the age group of 15-19 years, while the opposite holds for the age group of 25-29 years (CBS 1996) [2]. Those movements might be attributed to the presence of a university in the city Groningen and thus to the number of incoming and outgoing students. Most immigrants were from other inland regions (2.5%), and fewer were from abroad (0.1% were from EU countries and 0.4% from other countries). Compared to national averages in 1995, Groningen had more immigrants, particularly more from other inland regions (2.5% versus 1.6%), but less people from abroad (0.5% versus 0.6%). The

[1] CBS: Maandstatistiek Bevolking 1996, nr. 8, p. 6.
[2] CBS: Maandstatistiek Bevolking 1996, nr. 12, p. 27.

lower number of immigrants from abroad might be attributed to the fact that foreigners live more often in the urban regions.

In Groningen 255,000 households live with an average size of 2.1 persons per unit (CBS, Annual Household Statistics 1996). Groningen shows a further individualisation of households than the national average size of 2.3 persons per unit and has more single households (respective 39% and 32%). This might be attributed to the presence of students in the city of Groningen. The number of households with five or more persons in Groningen lower is than the national average (5% and 7% respectively, CBS, Annual Household Statistics 1996).

4.3 Labour force characteristics

4.3.1 Employed and unemployed persons

From 1983 to 1995 the labour force (employed and unemployed people between 15-64 years who live in the region) in Groningen increased from 205,000 till 249,000 persons (table 4.3). Consistent with the national (and urban) figures the number of unemployed in the labour force decreased from 14% to 9% between 1983 and 1995, but to a less extent than that in other intermediate and urban regions. In Groningen, the increase in employed in the labour force from 178,000 (86%) in 1983 to 226,000 (91%) in 1995 concerned more often men than women, both in the 1980s and 1990s. Women are still more often unemployed than men (in 1995 11% and 8% respectively).

Table 4.3 Labour force a) in 1,000 persons in Groningen and other Dutch regions, 1983-1995

	Groningen			National	Intermediate	Most urban
	1983	1990	1995	1990	1990	1990
Labour force	205	238	249	6,801	931	5,870
Of which:						
- employed persons	178	207	226	6,275	841	5,434
- unemployed persons	28	31	23	526	91	436
In % of labour force:						
- employed persons	86	87	91	92	90	93
- unemployed persons	14	13	9	8	10	7

a) Labour force = employed and unemployed persons of 15-64 years.
Source: Eurostat, Regio Database; adaption LEI.

Compared to the figures in both urban and intermediate regions, fewer men in Groningen are active, while the number of women is only lower compered to urban regions (but still far behind that of men). Of the male working age population, 75% were active in 1995, while this held for 55% of the female working age population (table 4.4). The sectors of employment do not disfavour the participation of men and women, because Groningen has a nearly similar structure compared to national (and urban figures). It is rather the competitiveness of the labour supply in the neighbouring regions that affects the opportunities of the resident labour supply.

Table 4.4 Participation rate a) by gender and age structure in Groningen and other Dutch regions, 1983-1995

	Groningen			National	Intermediate	Most urban
	1983	1990	1995	1990	1990	1990
Total	55	62	65	66	64	66
By gender:						
Male	72	75	75	80	78	80
Female	37	49	55	52	49	52
By age structure:						
- 15-24 years	40	50	55	56	53	57
- 25-34 years	70	77	82	80	79	80
- 35-44 years	70	76	79	78	76	78
- 45-54 years	58	66	68	68	67	68
- 55-64 years	29	28	22	31	30	31

a) Participation rate = employed plus unemployed persons as % of working age population (15-64 years).
Source: Eurostat, Regio Database; adaption LEI.

Besides the 249,000 persons belonging to the labour force (or the working population) between 15-64 years in 1995, Groningen had 133,000 persons belonging to the non-working population between 15-64 years (table 4.5). In 1995, they represented 35% of the working age population. Coherent with the increase in the working population during 1983-1995, the non-working population decreased (from 45% in 1983 to 35% of the working age population in 1995), but to a less extent than in other urban and intermediate regions. In line with the lower participation rates of both men and women, Groningen has more men and women in the non-working population than urban regions (and, in the case of men, more than in other intermediate regions).

The non-working population consists predominantly of retired people between 55-64 years and young people between 15-24 years. During 1983-1995 the number or retired people in the non-working population increased. The other age groups between 15 and 55 years have a smaller share of people that belongs to the non-working population, and exactly those groups are responsible for the decrease in the non-working population. The decrease in the non-working population is mainly caused by the increase in the female employed and unemployed. While in 1983 63% of the women between 15 and 64 years were 'inactive', in 1995 their rates decreased to 45%. In the same period the rates of inactive men remained relatively stable (respective 28% and 25%).

Table 4.5 Not-working population by gender and age structure in Groningen and other Dutch regions, 1983-1995

	Groningen			National	Intermediate	Most urban
	1983	1990	1995	1990	1990	1990
Not-working population (% of working age population, 15-64 years)	45	38	35	34	36	34
By age structure a):						
- 15-24 years	60	50	45	44	47	43
- 25-34 years	30	23	18	20	21	20
- 35-44 years	30	24	21	22	24	22
- 45-54 years	42	34	32	32	33	32
- 55-64 years	71	72	78	69	70	69
By gender b):						
Male	28	25	25	20	22	20
Female	63	51	45	48	51	48

a) As % of total persons in the age group in the working age population (15-64 years); b) as % of male and female persons in the working age population (15-64 years).
Source: Eurostat, Regio Database; adaption LEI.

4.3.2 Skills formation

In line with the general increase in education, the education level of the employed population in Groningen increased strongly in the last 10 years. In 1985 44% of the working population had at the most a lower secondary education, 37% an upper secondary education and 20% a tertiary education (CBS, Enquete Beroepsbevolking 1985). In 1995 30% of the employed in Groningen, had at the most a lower secondary education, 44% an upper secondary education and 26% a tertiary education (table 4.6). Unemployed are less often well educated. The employed population in Groningen has a similar level of education compared to national (and urban) figures, but it has more often a tertiary education than in other intermediate regions (due to the university in the region). If we relate the education level of the population between 15-64 years to the working population, two fifths of the persons with at the most lower secondary education belong to the working population in Groningen (and at a national level). The education level is positively related to participation in the working population and amounts for persons with an upper secondary education 2 out of 3 and for persons with a tertiary education 7 out of 10 (CBS, Enquete Beroepsbevolking 1995).

Table 4.6 Education level of the employed population in Groningen and other Dutch regions, 1985-1995 (in %)

	Groningen		National	Intermediate	Most urban
	1990	1995	1990	1990	1990
Employed persons					
Total					
Lower secundary education	44	30	30	31	30
Upper secundary education	37	44	45	47	44
Tertiary education	20	27	25	21	26
Male a)					
Lower secundary education	45	36	33	36	33
Upper secundary education	36	42	43	45	43
Tertiary education	19	22	24	19	24
Female a)					
Lower secundary education	40	25	31	30	31
Upper secundary education	39	45	43	46	42
Tertiary education	21	30	26	24	27

a) Figures for male and female are for 1993 instead of 1995.
Source: CBS, Enquete Beroepsbevolking, 1995; CBS, Regionale gegevens over arbeid, 1993; adaption LEI; Eurostat, Regio; adaption LEI.

The education levels disaggregated by gender are available for male and female employed in 1995. At that time male employed had less often a tertiary education than female employed (respective 22% and 30%) and less often an upper secondary education (42% and 45%) (CBS, Enquete Beroepsbevolking 1995). This might be attributed to the fact that the propensity to participate for men is relatively independent on their education level, while for women the participation increases with their education level, especially for married women. Although, this relationship exists also in other intermediate regions, the differences are stronger in Groningen where well educated women are overrepresented and less educated women are underrepresented in the employed population. This might be a combination of two reasons:

1. there might be more less educated women in the non-working population, because the higher number of unemployed and the culture that married women do not consider themselves responsible for earning an income, discourages less educated women to enter into the working population;
2. there might be fewer less educated women in the working age population compared to women in other intermediate regions.

Although, there are no data available disaggregated by gender, figures of the total population of 15-65 years show that in Groningen, compared to the other intermediate region Drenthe, more people have a tertiary education in both the working and non-working population. This fact might support the second reason and indicates fewer less educated women in the working age population.

There are hardly any reliable data on the education level of younger and older employed. However, given the rising education levels, the education of younger employed will be higher than that of older employed.

4.3.3 Flexibility labour supply

Flexibility of labour supply refers to the availability/opportunity of the labour force to be employed for a limited time during the week or during the year. The Netherlands is one of the EU countries with the highest share of part time workers (limited time during the week), while temporary or seasonal work (limited during the year) is relatively unimportant.

In Groningen the number of part time workers increased from 25% to 42% of the employed in the period between 1983 and 1995 (table 4.7). Nine out of ten part time workers are in services, which is half of the workers in this sector, predominantly in trade, hotels and restaurants and in community, social and personal services. There are hardly part timers in agriculture (15% of the workers) and industries (18% of the workers). While the number of part time workers in services and industries showed a steady increase, in agriculture they increased in the 1980s, but decreased in the 1990s. The sectors of part time workers are explained by the fact that predominantly women work part time (70% compared to 23% of the male employed). Compared to other intermediate and urban regions, Groningen has more part time workers, which might be attributed to a higher presence of employment in services and the under-employment of women (and men) due to the lower participation rates.

There are no data available about the age structure of part time workers. However, knowing that most of the part time workers are women, and that predominantly women younger than 45 years participate, it might be hypothesised that also part time workers will belong more often to those age group.

There are no data available about the number of temporary or seasonal workers in Groningen. Compared to the number of part time workers, it might be expected that consistent with the figures of other regions, Groningen has few temporary or seasonal workers. In 1995 at the national level the number of temporary or seasonal workers is 8% of the employed and is increasing (CBS 1996) [1]. Instead of to the labour supply, the increase in flexible workers might be more attributed to the labour demand, whose objective is to have an efficient use of employed and to react adequately to a flexibility in the demand for products and services. A sign of this development is the increase in temporary employment agencies.

[1] CBS: Maandstatistiek Bevolking 1996, nr. 7, p. 29.

Table 4.7 Part time workers in Groningen and other Dutch regions, 1983-1995 a)

	Groningen			National	Intermediate	Most urban
	1983	1990	1995	1990	1990	1990
In 1,000 persons						
Part time workers	44.9	70.6	94.4	1,989.3	263.5	1,725.8
By sector:						
Agriculture	1.2	2.5	0.8	83.8	14	69.8
Industries	3.7	7.6	9.8	234.3	30.2	204.1
Services	39.6	60.5	79.3	1,658.7	217.8	1,440.9
By gender:						
Male	11.9	21.1	30.4	584.2	73.6	510.7
Female	33.0	49.5	64.0	1,405.1	189.9	1,215.1
In % of total workers						
Part time workers	25	34	42	32	31	32
By sector:						
Agriculture	12	26	15	28	24	29
Industries	7	14	18	14	13	14
Services	35	43	50	39	40	38
By gender:						
Male	10	16	23	15	14	15
Female	56	64	70	59	62	59

a) Due to differences in definitions about part timers this table does not correspond with table 3.11.
Source: Eurostat, Regio; adaption LEI.

4.3.4 Conclusions

The analysis of the population and labour supply in Groningen shows the following trends: stabilisation of the population, predominantly young immigrants and emigrants, lower participation rates of both women and men, more female part time workers and a well educated workforce. There are still more residents belonging to the non-working population, predominantly women. Usually, they will try to find a job, if the employment opportunities increase.

If we consider the trends in the population and in the labour force and whether they induce opportunities to increase employment in the region, the significance of the lower participation of the working age population, the number of incoming commuters and the well educated workforce might be further analysed.

It might be discussed to what extent incoming commuters generate less local employment or rely on larger areas for their demand of products and services. In chapter 3, it has been found that the sectors with the highest increase in jobs were business and financial services. Predominantly the well educated population and the clustering of enterprises near the university centre were responsible for this. Services related to local population movements increased less. In this sense the characteristics of the workforce might be more similar to that of urban regions (working in the region, staying outside) than that of intermediate regions (staying in the region and generating some local employment, working outside).

The rising education of women will continue to increase their participation in the labour force and indirectly this might increase a labour demand for other women. Until now, most of the women have a part time job additional to their domestic work. If they increase their number of working hours, more externalisation of domestic work and care might be expected, and thus more (low-skilled) jobs. Since most of the domestic work and (health) care has been done by women, and the gender segregation on the labour market is relatively persistent, it might be expected that those trends will support a further increase in women in the labour force.

5. Labour market

5.1 Introduction

In our analysis we assume the existence of a labour market and basic forces on the supply and demand side of this market have been analysed in the previous chapters. However, the labour market has two fundamental features that makes it peculiar and that must be taken into consideration:

1. the labour market is not a spot market, i.e. a market in which there is an auctioneer who matches demand and supply automatically and instantaneously. The labour market is in fact an institutional process, in which the final outcome - number of employed and wages - is always the final result of a bargaining process;
2. the labour market could be in disequilibrium: wages and unemployment rate are not necessarily the equilibrium ones and the traditional concept of equilibrium markets could be useless in this case. Sticky wages and frictions can produce temporarily or even structurally a disequilibrium on the labour market.

According to these aspects, in this chapter we study the functioning of the labour market by focusing on:

a. wages structure;
b. institutional functioning of labour market: transaction costs;
c. transportation costs.

In the last section we pay attention to frictions between the supply and demand of labour.

5.2 Wages structure

It is important to have a general impression of the wage level of the region: is it low or high compared to other regions. The wage level gives an impression of the labour productivity and of the competitiveness of the region. This general impression can contribute to the explanation why entrepreneurs settle or do not settle in a region.

Qualitative description of the regional wage level

In the Netherlands there are only minor regional differences in wage levels. This is the result of the Dutch system of collective labour agreements (CAOs). For each economic sector, a collective labour agreement is concluded at national level and all employers in the sector concerned are bound by it (Eurostat, 1993). Nevertheless regional differences in purchasing power exist. In 1995 52% of the people in Groningen earned less than the modal wage level. This is a relative high percentage compared to the Netherlands as whole (45%), and the surrounding regions of Groningen, the province Drenthe (46%) and the province of Friesland (50%). The percentage of people who earned less than the minimum wage level in Groningen (4%) is about the same as in the Netherlands as whole (CBS, 1997).

5.3 Institutional functioning of labour markets: transaction costs

We define institutions as the set of working rules operating in a given economic context, in this case a given local labour market. So the institutional functioning of a labour market is defined as the set of rules and conditions under which supply and demand can be matched and bargained. Transaction costs arise when there are frictions in the matching of supply and demand on the labour market. These costs are partly due to the existence of an imperfect market in which asymmetric information is present. Information costs are on the one hand due to difficulties by employers to get information about skills formation of the workers and on the other hand due to lack of information by workers about the opportunities on the labour market. Other sources of transaction costs are the costs of hiring and firing that firms and employers can face. We refer to these costs as turnover costs.

General overview of organisations and institutions affecting the labour market

Labour organisations

The best known labour market body is the Public Employment Service (PES), consisting of the Central Board for the Employment Service (Centraal Bestuur voor de Arbeidsvoorziening (CBA)) and the Regional Boards for the Employment Service (Regionale Besturen voor de Arbeidsvoorziening (RBA)). At national level CBA is a main semi-public institution. The CBA has a tri-partite structure consisting of the central government, employers' organisations and trade unions. Although the CBA formulates the main lines and the main scopes for policy, the decision making structure is strongly decentralised. There are also 18 tri-partite RBAs in the Netherlands. There is one RBA in Groningen, located in the city of Groningen. The RBA has a high degree of autonomy as long as it stays within the guidelines of the CBA. In the RBAs employees are represented by local union officials and employers by local employers, personnel managers of major employers and/or officials from employers organisations. The local government is usually represented by an alderman (De Koning et al., 1996).

In Groningen the RBA supervises 12 local employment offices. The RBA mediates between persons looking for a job and employers. Therefore, the RBA has four main activities:

- to enhance the properties of employees;
- to place job seekers;
- to fulfil vacancies;
- to give information.

So the RBA has not only a matching function but also an advising function. It gives for example information about subsidies in the field of employment, education and legal information in the field of the labour market. The RBA also takes care of the employment projects in Groningen which are subsidized by the European Social Fund.

The Employment Service Act of 1991 authorises the establishment of private employment agencies offering a full range of services, acting as intermediaries between job seekers and employers. Before starting operations agencies must obtain a licence. The Act has abolished the monopoly of the PES in the field of placement. The effect could be that an increase in the activities of other intermediaries would contribute to the objective of the Employment Service Act, namely to stimulate the efficiency of labour market processes and to increase labour market chances of disadvantaged groups. For Temporary Work Agencies (TWA') a similar licence already existed (De Koning et al., 1996).

Chambers of commerce in Groningen

Several chambers of commerce (Kamer van Koophandel) are located in the Netherlands. In Groningen there is one chamber of commerce, located in Groningen. The chamber of commerce is an organisation that surveys the regional developments. The chamber keeps up the registration of firms in Groningen and has an executive task concerning some shopkeepers laws (for example laws about opening hours of shops). Further, it advises firms in the field of policy of spatial arrangements, urban developments, traffic, environment, education and labour market, tourism and recreation, economic and regional developments. The chamber has contacts with authorities and organizations at several levels: municipalities, regional cooperations, province and the national government and of course with enterprises. (Kamer van Koophandel, 1997).

Institute for SME

Instituut voor het MKB Voorlichting Noord (IMK) (The Institute for SME Information in the northern region) is an independent department of the national IMK Information. The IMK informs and advises entrepreneurs in SME about developments that are important for management. They organise meetings, give lectures, supervise entrepreneurs and mediate to others. Specific knowledge fields are: starting of enterprises, strategy, marketing, personnel and organization, finance and firm take-overs.

Employers organization

The VNO-NCW Noord is an employers organisation for the northern provinces of the Netherlands. The VNO has no active role in the matching process of employers and employees. It works at a macro level; it tries to improve the entrepreneurial climate by stimulating employers to invest. These investments can create employment. The VNO has a good network; it is represented in many organisations and has good contacts with industrial societies. It also gives the possibility to network by organising meetings.

Trade unions

Districtkantoor Groningen FNV: FNV (a non-confessional trade union) has 56,500 members in Groningen in 1997, that means 25% of the working population in Groningen is member of

FNV. In the Netherlands as a whole only 17.4% of the working population is member of FNV. The number of FNV members have been increased since 1987 when it amounted to 43,700. This is opposite to the national trend: the number of FNV members have been decreased since 1987 when it amounted to 896,100 (29% of the working population).

Regiokantoor CNV: in 1997 the CNV (a confessional trade union) has 14,800 members in Groningen, that means 7% of the working population. In the Netherlands as a whole the CNV has over 350,000 members. In 1983 Groningen had 15,700 CNV members (9% of the working population) and the Netherlands as a whole had 331,800 CNV members.

Organisations of farmers

Noordelijke Land- en Tuinbouw Organisatie (NLTO) (Northern Agriculture and Horticulture Organisation): NLTO is a regional department of the LTO; the national organisation for agriculture and horticulture. The NLTO attends to the interests at regional level of more than 10,000 farmers in the provinces of Groningen and Drenthe (about 50% of agricultural labour force). These members exert also influence on the policy of their organisation via their sectoral department (farming, horticulture, dairy and intensive cattle farming). The members can make use of the protection of interests, information and services. The NLTO works together with the province of Groningen, the municipalities and the nature conservation organizations.

Resources spend by employers to find workers

Employers spend different means to find workers, like advertisements, relations with other employers, employment agencies, employment exchanges, open applications, etcetera. Advertisements are the most used mean. When employers use 150 times resources to find workers, it results 100 times into the most appropriate candidate (Kamer van Koophandel et al., 1995).

Average duration of a vacancy job

The average duration of a vacancy job in Groningen has grown from 6 weeks in 1994 to 8 weeks in 1997. These figures includes the time which is needed for the administrative settlement. The duration of vacancy jobs tells something about the quality and quantity of the labour supply. The relatively short duration of vacancy jobs in Groningen means that there is sufficient labour supply of demanded quality.

Minimum wage constraints in hiring new workers

Since 1968 there are minimum wage constraints in hiring new workers at the age of 23 till 64 years. In the Netherlands all employers are bound to these constraints. The level of the minimum wage is adapted twice a year to the average increase in the CAO wages, unless this increase is so high that it is harmful for the employment situation. Since 1978 there are minimum wages for the youth at the age of 15 till 22 years. This wage is a certain percentage of the minimum wages of adults. The percentage varies from 30% to 85%, depending on the age of the worker (Bakels, 1996).

Public support for hiring new workers

In Groningen, as in the Netherlands as a whole, there are job creation measures, like the Labour Pools (Banenpool (BP)), the Guaranteed-Jobs-for-the-Young Act (Jeugdwerkgarantiewet (JWG)) and the recently introduced Job Schemes (called 'Melkert jobs' after the present Dutch Minister of Social Affairs and Employment (SZW). These schemes create additional jobs for specific target groups, like women, young people, long term unemployed and ethnical minorities. Under the JWG the municipal organisation hires young people who are threatened with long-term unemployment and places them in temporary jobs. The purpose of the JWG is to place these young people in regular jobs when they have gained sufficient work experience. Labour pools are aimed at long-term unemployed who have no chance of a regular job. The idea is to let these unemployed do beneficial works for society. Placements from labour pools to regular jobs are not expected but not excluded either. The Job-schemes can be divided into three categories. The first category consists of the creation of jobs in the public sector for long-term unemployed. This reduces the long-term unemployment and simultaneously increases public safety, care and education. The second category is the creation of jobs with the use of social assistance benefits. Since 1996 it is possible to transfer social assistance benefits into a fixed amount of subsidies (Dfl. 18,000 per job). The third category consists of experiments with new ways of encouraging the participation of the long-term unemployed recipients of social assistance benefits. These are projects to activate social assistance recipients by letting them perform unpaid activities while retaining benefit. The local authorities decide upon the nature and the content of projects. The purpose of these projects is twofold: to enhance the labour market chances of long-term benefit recipients and to help them out of social isolation (De Koning et al., 1996). According to the representative of the RBA, measurements like Melkert jobs, labour pools and JWG are not very effective measures. Employers are mainly interested in the qualities of employees and less in subsidies on employees.

The BP and the JWG are generally carried out by municipal organisations, which are related to the Municipal Social Welfare Office (Gemeentelijke Sociale Dienst (GSD)). Since 1995 the municipalities are also involved in the implementation of the new Job-Schemes (De Koning et al., 1996).

Conditions in hiring/firing labourers

Most of the times there are no costs in firing workers. In a contract of employment it can be described that when an employee is fired without his fault, he receives compensation.

Officially there are no different conditions in hiring young or elder people. Nevertheless, when employers can choose between a young and elder person, who both have the same qualities, they often prefer the younger person. This person is often cheaper and can stay longer with the firm. There are also no different conditions in firing young or elder people. When there have to be dismissals in a firm, the employees who came last in are the first to be fired. This is also the case when firms have to do with total reorganization. The second step in such reorganizations is that they fire the younger employees.

There are officially no different conditions in hiring women. However, the national government stimulates firms to hire more women, ethnic minorities and handicapped persons.

Public firms are supposed to strive after a certain percentage of these employees. When employers can choose between a person belonging to this group or a person not belonging to this group, who both have the same qualities, they should choose the first person.

There are no different conditions in firing and hiring workers associated to Unions and workers not associated. There are also no costs in changing wages, although the people who did the administration concerning the bargaining have to be paid.

Costs for hiring/firing labourers are not relevant. In 1980 the labour market was relatively less narrow than in 1997. The public support for hiring new workers is intensified because of the job creation measures, like Labour Pools, JWG and Melkert jobs.

Table 5.1 Overview of relevance of information costs and turnover costs

Variable	Relevance	
	1980	1997
Resources spent by employers to find workers	5	4
Public support for hiring new workers	3	2
Conditions in hiring/firing labourers	5	5

In which: 1 = very high, 2 = high, 3 = medium, 4 = low, 5 = very low.

5.4 Commuting

Commuting population

During 1990-1991 about 139,000 persons (94%) of the total employed persons in Groningen (measured at place of residence) commuted inside the region and 9,000 persons (6%) commuted to other regions (CBS, 1993c). The amount of persons commuting from other regions into Groningen was 15,000. In 1996 the amount of people commuting to other regions has increased to 13,000 people whereas the amount of persons commuting from other regions into Groningen has increased to 26,000 persons. Most of the persons commuting from other regions into Groningen live in the northern part of Drenthe. Groningen obviously has a positive commuting balance (7,000 in 1990 and 14,000 in 1996). The surrounding regions of Groningen, the province sof Drenthe and Friesland show both a negative commuting balances (respectively -2,000 and -7,000 in 1996) (Stelder and Van Dijk, 1997). The changes and the level of the commuting balance shows that Groningen can be labeled as a 'working province'.

The average distance commuted

The average distance commuted in Groningen per person per day in 1995 was 6.3 km. Most of this distance (4.9km) has been commuted by car. Public transport had 0.6 commuted kilometres and 0.6 km was commuted by bike. The average distance commuted in Groningen (6.3

km) differs a little bit from the national level (7.7 km). In the Netherlands as a whole the commuted distance by car (5.7 km) and the distance commuted by public transport (1.1 km), is higher than in Groningen. The last factor has to do with the relatively low density of public transport in Groningen. Commuted kilometres by bike (0.6 km) are the same (CBS, 1995b).

5.5 Friction between labour supply and labour demand

This section will give some information on the unemployment in Groningen compared to the Netherlands and the differences in unemployment per municipality. It is not easy to give some information about unemployment because several definitions are used. Three of these definitions will be discussed: the not-working job-seekers, the registered unemployment and the not-working or unemployed labour force. It goes without saying that these definitions result in different unemployment rates (table 5.2).

Table 5.2 Different concepts of unemployment in Groningen, the other northern provinces and the Netherlands (in %), 1996

	Groningen	Drenthe	Friesland	the Netherlands
Not-working job-seekers	20.4	13.3	17.4	12.9
Registered unemployed	12.0	6.4	9.1	6.6
Not-working or unemployed labour force	11.9	8.2	9.2	7.4

Source: RuG, 1997.

Not-working job-seekers

Not-working job seekers are persons in the age of 15-64 years, registered at the PES and who are not working for 12 or more hours a week. This unemployment figure is used by the Public Employment Service. The main drawback of using the registrations of the PES as data source is the relative high degree of pollution of the PES-files. Often persons (still) registered as not-working are in fact having a job (and the other way around). Nevertheless, the development in the number of persons registered at the PES may be used as a (conjunctural) labour market indicator (Kamer van Koophandel et al., 1995; De Koning et al., 1996).

Registered unemployment

To correct for the pollution of the PES-files, the CBS uses another concept of employment, namely the registered unemployment. This figure contains all persons in the age of 15-64 years, registered at the PES and work not or less than 12 hours per week, willing to work at least 12 hours a week and who can start within two weeks. The CBS (Central Bureau of Statistics in the Netherlands) estimates this figure on the basis of a survey among the labour force. Since 1989 the registered unemployment is the official unemployment figure used by the

Ministry of Social Affairs and Employment. (Kamer van Koophandel et al., 1995; De Koning et al., 1996).

Not-working or unemployed labour force

The not-working labour force are those people who are in the age of 15-64 years, who receive unemployment benefits and/or who are intensively searching via all kinds of possibilities a job for at least 12 hours a week, and who are available in the short run. Persons who found a job, but who did not started yet, are also counted in. This unemployment figure has a large similarity with the directives of the International Labour Organization (ILO) and EUROSTAT. For this definition the criterion 'intensively searching for a job' is important (Kamer van Koophandel et al., 1995; De Koning et al., 1996).

As from 1994 the definitions of the registered unemployment and the not-working or unemployed labour force have changed. This change concerns the labour force. Before 1994 people belonged to the labour force when they worked, or were willing to work, for at least 20 hours a week. Since 1994 this hour-limit has been reduced to 12 hours a week (Kamer van Koophandel et al., 1994).

Unemployment in Groningen compared to the Netherlands

Table 5.3 shows registered unemployment figures since 1987 for Groningen, the other northern provinces and the Netherlands as a whole. It is obvious that Groningen has a higher unemployment rate than the other northern provinces and the Netherlands as a whole. Till 1994 unemployment decreases. After 1994 unemployment increases.

Table 5.3 Unemployment (Registered Unemployed) in Groningen, other northern regions and the Netherlands as a whole (in %), 1987-1996

	Groningen	Drenthe	Friesland	the Netherlands
1987	12.0	7.8	9.4	7.9
1988	12.6	8.4	9.5	7.7
1989	12.5	6.8	8.8	6.9
1990	10.9	6.1	8.0	5.9
1991	8.9	5.4	7.4	5.4
1992	8.5	6.2	6.9	5.3
1993	10.3	6.9	9.5	6.5
1994	11.4	8.0	10.1	7.5
1995	11.8	7.2	9.2	7.0
1996	12.0	6.4	9.1	6.6

Source: RuG, 1997.

Unemployment at the municipality level is measured in not-working job-seekers figures. As shown in table A5.1 there are large differences in unemployment within Groningen. More than 40% of all unemployed persons live in the city of Groningen. Seven out of 25 municipalities have unemployment figures above 20%. In contrast to the city of Groningen (with an unemployment rate of 27%), the municipalities which are located near this city, have low unemployment rates. The unemployment rates of the municipalities in the northern and eastern part of Groningen are considerably higher.

6. Actors: analysis of strategies

6.1 Introduction

The strategies of actors towards maintaining or increasing rural employment are the central part of this case study. A strategy can be defined as 'the art of employing all resources to achieve specific goals' or 'as a conscious pattern of actions to meet ends'. However, for some of these actors, employment is a side product, as their main objective is profit maximization. Moreover, we should take into account that there are actors who might have objectives but who not necessarily have strategies. The following groups of actors are distinguished: policy makers, entrepreneurs, farmers and labourers. In fact it can be argued that farmers belong to the group of entrepreneurs. They are treated here as a separate group since farmers are a relatively important group of actors in rural regions and they have a dominant claim on space. The strategies of these four groups of actors are discussed in section 6.2-6.5. The chapter is concluded by two sections on the interaction of internal actors and on the interaction of internal and external actors.

6.2 Strategies of policy makers

Within the group of policy makers four levels can be distinguished:
- EU level;
- national level;
- regional level (= provincial level in Groningen);
- local level (= municipality level in Groningen).

Often policy makers from two or more levels cooperate in launching their strategies and implementing policies. In this section firstly strategies of policy makers will be identified, and secondly attention will be paid to implemented policies, which can be seen as a result of these strategies. Finally, an assessment of strategies and policies is given.

6.2.1 Strategies

The following major strategies of regional and local policy makers towards maintaining or increasing employment can be identified:

a. cooperation with the provinces of Drenthe and Friesland in the field of regional development; this cooperation has been strengthened in recent years;
b. in recent years a strategy towards clustering of economic activities in well defined zones came into being;
c. a change in the strategy of municipalities and the province with regard to the settlement of firms: from a 'strict applying the rules' attitude to an attitude of 'solving together with

firms settlement problems';
d. a strategy towards favourable settlement conditions for firms, in which the focus recently shifted from attracting new firms towards supporting existing firms;
e. a strategy towards the improvement of the image of the region by launching innovation projects.

The most important strategy of the national and EU policy makers towards maintaining and creating employment in Groningen is to provide funds for stimulating regional economic development, improvement of the infrastructure and relocation of government services to peripheral parts of the country.

Below strategies (a)- (c) and (e) will be discussed; strategy (d) is directly related to policies, and hence this is dealt with in the next subsection.

Strengthening cooperation policy makers northern provinces

Traditionally policy makers in the three northern provinces of Drenthe, Groningen and Friesland have a close cooperation, since these provinces have a peripheral location in the Netherlands and according to Dutch standards a relatively low population density. In recent years this cooperation has been strengthened and is now embodied in the SNN (Samenwerkingsverband Noord-Nederland), the cooperation of the northern provinces. The strengthening of the cooperation is the result of a growing awareness that each of the provinces is too small for an own regional development policy, and that the provinces should not compete with each other for attracting new enterprises. So the strategy is now to present the three northern provinces as one economic area, with a mix of economic activities concentrated in certain well-defined zones. The advantage of such a larger economic area is that it has more critical mass than each of the separate provinces. Targets for economic zones in Groningen are a cluster of activities in the zone Groningen/Assen/Veendam and a cluster Eemshaven/Delfzijl (SNN, 1998).

Clustering of economic activities

In fact, these two economic zones coincide with the main economic centres in the province of Groningen, and are more or less a logical sequence of the concentration strategy already started with the creation of the so-called 'Stichting Groninger Bedrijfslokaties' (Groningen Business Locations) in 1994. This is a cooperation of municipalities, the province, the Chamber of Commerce and the NOM (i.e. the investment and development company for the Northern Netherlands; see section 6.2.2). The Groninger Bedrijfslokaties is now the one address in the province, which supervises the settlement of new firms in Groningen and guides them for settlement to a limited number of economic zones, which satisfy certain spatial and environmental criteria. Before 1994 enterprises were freer to select a place of settlement and there was more competition for new firms among municipalities. Advantages of a clustering of economic activities are a relatively high density of enterprises, which stimulates the interaction among enterprises and which attracts other enterprises.

Changing attitude municipalities and the province towards firms

Due to spatial planning and environmental criteria firms are not allowed to settle at any place in the region. These criteria were rather strict applied by regional and local policy makers in the 1980s, which resulted sometimes in decisions of firms not to settle in Groningen. This strict attitude of policy makers was due to their belief in the 'makable society' (maakbare samenleving). A striking example of this attitude is the traffic circulation plan for the city of Groningen, due to which many firms became inaccessible. In the 1990s policy makers changed this attitude, mainly due to three reasons: the society wide tendency towards more liberalization, the pressure of firms and the gradual replacement of old policy makers by a new generation. Since then they tried to solve problems in cooperation with firms in a creative way.

Innovation projects

The 'Blauwe Stad' (Blue City) is a plan for regional innovation in the Oldambt in the eastern part of Groningen in order to create a high valued living and recreation environment for local people and new inhabitants. The Oldambt is characterized by a high unemployment rate, ageing population, decreasing purchasing power and a decline in the provision of services. The total area of the Blauwe Stad covers about 2,000 ha, which is at the moment mainly used for farming. According to the plans a lake of about 800 ha will be made along with the creation of about 350 ha nature area and 500 ha forests and the construction of about 1,200-1,800 houses. It is foreseen that the Blauwe Stad will be constructed in the period 2001-2010, which requires about 4,400 person years of employment. After the construction phase it is estimated that it provides about 430 person years of employment (mainly in personal services, tourism, trade and transport) on an annual base (Kleine, 1997). Total costs for the construction of the lake and the nature and forestry areas are about 125 mio ecu. The plan for the Blauwe Stad is rather radical, but it is supported by policy makers of the province and the five concerning municipalities. With the local actors in the area of the Blauwe Stad there have been intensive contacts for creating support, emphasizing that the plan would not be continued when the local actors would not support it. In the end local actors are positive about the plan, hoping that it will provide employment opportunities for their children. Other examples of innovation projects are the reconstruction of the centre of the city of Groningen and the construction of a big container terminal in Veendam (Rail Service Centre Groningen; see also section 2.3.1 and 6.3)) in the 1990s. Besides, the region is promoted with the slogan 'There is nothing on top of Groningen (Er gaat niets boven Groningen)'. These projects show that policy makers in Groningen are innovative and not afraid for launching hazardous plans.

6.2.2 Policies

In this section we focus on four groups of policy measures:

a. passive/active labour market policies;
b. settlement policies directed at individual firms;
c. policies directed at the improvement of the regional economic infrastructure;
d. EU structural policies.

a. *Labour market policies*

Passive labour market measures refer to income support measures. They provide workers with work-related benefits, which replace wages in case of unemployment. Passive measures originate both from social security and from collective agreements in branches (such as early retirement arrangements). These measures are taken at the national level. The Netherlands has an extensive social security programme (De Koning et al., 1996). The gap between legal minimum wages and unemployment benefits is relatively small, especially in the short run.

Active labour market policy consists of activities, which have the objective to place the unemployed in a regular or additionally created job. It is used as a steering device to promote an efficient matching of demand and supply on the labour market and to improve the qualifications of job seekers. Till 1991, the Public Employment Service (in Groningen: RBA in Groningen) was responsible for the major part of the active measures. Since that date the Employment Service Act authorises private employment agencies to act as intermediaries between job seekers and employers as well. Another recent development is the growing involvement of municipal organisations. The most important active measures are education and vocational training, placement subsidies, work experience and job schemes (De Koning et al., 1996).

Education is a very important subject nowadays, especially for technical and information sector occupations. It often occurs that labour demand of employers does not correspond to the education of employees. In order to harmonize supply and demand of labour, the RBA takes care of vocational training. The RBA is constantly looking for ways to give better/more flexible training. The RBA supports the way of thinking that schooling is not only important for job-seekers but also for working people.

The General Employment Scheme Regular Jobs offers employers a one-time subsidy when they hire a long-term unemployed person. Under certain conditions the employer can be temporarily exempted from part of the social contributions (De Koning et al., 1996). The most important measures to obtain work experience are the JWG for young unemployed and the labour pools for long-term unemployed (see section 5.3). The job schemes create additional jobs for long-term unemployed, with use of financial means from social security.

b. *Settlement policies directed at individual firms*

- especially for Groningen [1]: investment subsidies scheme (investeringspremieregeling IPR).

  This scheme is intended to stimulate economic activities. Entrepreneurs are eligible for an investment subsidy on the setting up of new enterprises or on the expansion of present enterprises. These subsidies are attractive for starting entrepreneurs, since during the enterprise starting phase they have many costs.
- national economic policies - applying for the whole country - are credit facilities for SME and credit facilities for technological development (there are no unambiguous criteria, these depend on the nature and size of firms);
- spatial planning policies: in the scope of spatial planning policies the province has

[1] This subsidy scheme also applies in certain other parts of the country.

a spatial planning plan (streekplan), which has an indicative function for the spatial planning plans (bestemmingsplan) of the municipalities. Within these plans, which are periodically revised, it is indicated which locations can be used for the settlement of enterprises. The spatial planning plans of the municipalities are binding upon citizens. As stated above, Groningen has applied a concentration policy for areas of settlement from 1994.

c. *Policies directed at the improvement of the regional economic infrastructure*

- master plan for the northern part of the Netherlands ISP (Integraal Structuurplan Noorden des lands ISP).
  This is a programme implemented by the Ministry of Economic Affairs to stimulate economic development in the northern part of the Netherlands. The programme is used for investments in infrastructure and improvements in the entrepreneurial climate. The staff of this programme has very close contacts with enterprises. At the moment they are amongst others involved in a project to promote innovation in enterprises. Therefore they have selected about 350 entrepreneurs, who had a high rate of investment in recent years (forerunners). This selected group of entrepreneurs is asked to discuss the advantages of innovation with other entrepreneurs, who had an average rate of investment in recent years (followers) in order to stimulate innovation by this group too;
- national economic policies, applying for the whole country: ad hoc financing, from the national gas revenues, for infrastructure;
- investment and development company NOM.
  The NOM, the investment and development company for the Northern Netherlands, aims at stimulating and reinforcing the economies of the three northern provinces in order to encourage employment opportunities. The NOM assists companies from inside and outside the region in investment matters, provides advice regarding subsidies and management, participates in financing and functions as an objective intermediary between government and enterprises. The NOM was established in 1974; also in other parts of the Netherlands companies like the NOM exist. The regional and national authorities finance the NOM, although entrepreneurs have to pay for the services of the NOM. In recent years the emphasize in the strategy of the NOM has shifted from attracting new firms into supporting existing firms and to promote the settlement of supplying and processing enterprises around some big industrial enterprises. By doing so, the NOM hopes to improve the entrepreneurial climate and the anchoring of big industrial enterprises, in order to prevent that these big enterprises leave the region;
- relocation of government services to peripheral parts of the country: for Groningen this concerns mainly the relocation of a part of the PTT, the national public post and phone company, from The Hague to the city of Groningen. The largest part of the relocation of the PTT, in which about 2,200 jobs – especially in research and development - were involved, took place in the second half of the 1980s [1] (Staats-

[1] Due to multiplier effects, a.o. services asked by these newcomers, the total impact on employment exceeds the amount of 2,200 jobs.

bedrijf der PTT, 1985). These jobs were occupied by persons, moving from The Hague to Groningen, and by local people from Groningen. This relocation contributed to the improvement of the knowledge infrastructure in the city of Groningen. Another government service, which has been relocated was the Dienst voor het Wegverkeer (Service for Road Traffic) to Veendam.

d. *EU structural policies*

The eastern part of Groningen and the city of Groningen are since 1989 an objective 2 area. This area is bordering to the objective 2 area in Drenthe, and hence one programme applies for both areas. The targets of the objective 2 policies are the enhancement of the regional gross product and employment. Priorities are the sectors industry, financial services and tourism along with the settlement environment: urban economy and tourist environment. The impact of these measures on employment is considerable, although it is very difficult to obtain information on this since EU support is given in combination with other sources of support. According to an estimate, in the period 1986 [1]-1996 about 8,600 permanent jobs and an amount of 13,000 man years of temporary labour in construction, services etcetera were created in projects supported by the EU in the objective 2 areas in Groningen and Drenthe (Bureau Bartels, 1998). However, this is probably an overestimation, since all projects were included to which the EU contributed with financial support. Sometimes this support was very small, as the major part of financial support originated from other sources. Nevertheless, it has to be noted that investments in infrastructure can have a large spin off on future employment, which is not taken into account here.

Since 1994 the western part of Groningen is under objective 5b. Due to the short duration of the project, nothing can be said about the employment impact so far. Within this area three municipalities (De Marne, Winsum and Zuidhorn) are also eligible for LEADER II. The LEADER programme is set up in coordination with four municipalities in the bordering province of Friesland. LEADER projects are often related to tourism and the marketing of regional products. Most promising result of LEADER so far is that it motivates and activates local people, but it appears that for doing so, some 'top down' incentives are necessary. A weakness of the LEADER projects is the uncertainty about the continuity of the LEADER funds. It is feared that many projects disappear when the subsidies stop.

The budget of the Ministry of Economic Affairs for regional development in the scope of ISP, IPR and NOM amounts to about 335 million ecu for the three northern provinces during the period 1994-1999. From the information available on expenditure in the scope of objective 2, objective 5 and LEADER programmes, it can be seen that the contribution of the EU to regional development is substantial relatively to the national means (table 6.1). The EU contribution results in projects, which otherwise would be completed at a slower rate or not at all.

[1] In the period 1986-1988 there was an experimental program towards structural improvement, co-financed by the EU.

Table 6.1 Financial overview structural policies EU in Groningen a) (mio ecu)

	Total costs	Contribution		
		EU Structural Funds	public (national)	private
Objective 2				
1989-1993	318	82	174	62
1994-1996	253	76	133	44
1997-1999	296	100	155	51
Objective 5b				
1994-1999	158	35	81	41
Leader II				
1994-1999	n.a.	2.64	n.a.	n.a.

a) Expenditure for objective 2 and 5b cover also expenditure for the province of Drenthe; about 60% of the expenditure for objective 2 is spent in Groningen and for objective 5b this percentage is 50; expenditure for LEADER II include also expenditure for the province of Friesland.
Source: Various documents of the provinces of Drenthe and Groningen, and European Commission (1997), The impact of structural policies on economic and social cohesion in the Union 1989-99; Luxembourg.

6.2.3 Assessment of strategies of policy makers and policies

Weaknesses and strengths

Weak points in the strategies in the 1980s were the insufficient cooperation with the provinces of Drenthe and Friesland in the field of regional development, the rather strict attitude of policy makers of municipalities and the province towards firms and the focus on attracting new firms. However, these weak points have been recognized in Groningen in recent years. Now there is a close and increasing cooperation between Drenthe, Groningen and Friesland, municipalities and the province try to solve problems in cooperation with firms and the focus is more on supporting existing firms in Groningen. Nevertheless, there are still policy makers who want to favour their own municipality at the costs of others, so the cooperation can still be improved. These shifts also offer promising perspectives for the near future. Hence, promising strategies and polices are identified as follows:

- the clustering of economic activities in well-defined zones. Advantages are a relatively high density of enterprises, which stimulates the interaction among enterprises and which attracts other enterprises. However, in the case of the province of Groningen it can be wondered whether such a strategy is necessary. Outside the now defined zones the size of economic activities is limited (the main exception is Stadskanaal), and it might be expected that firms are attracted to these economic zones by infrastructural endowments and market forces;
- the cooperation in regional policy of the three northern provinces with the aim of creating a larger economic area with more critical mass (although it can be wondered what

the size of an optimal area for regional development policy is);

- the cooperation of municipalities, the province and firms in solving problems;
- the shift in the focus on supporting existing companies instead of new companies This seems also promising, since the bulk of employment is embodied in existing enterprises;
- the investment subsidies are effective, both for new firms and for firms who want to expand. Often these subsidies act as an additional incentive in favour of Groningen in the decision process of settlement.

Integration of national and EU policy measures at the regional level

Groningen is a relatively wealthy region compared to other EU regions eligible for support in the scope of objective 2 and 5b. Nevertheless, the financial means of the Structural Funds are considered to be a welcome addition to the available national means for regional development. The integration of national and common policy, in the sense that expenditure for common policy measures in the scope of objective 2 and 5b have to be cofinanced by the national government, is sometimes hampered by the fact that the borders of the objective 2 and 5b region do not coincide with the borders delineated by the national authorities in their regional policies. In such cases national measures covering the whole region have to be divided into subregions, which complicates administrative control and monitoring to a high extent.

Motives of economic actors for using or not using EU policy instruments

Sometimes EU policies in objective 2 and 5b areas are not used since procedures are considered as too bureaucratic: a lot of time is needed to fill in all forms and for small projects this is too time consuming and expensive relatively to the revenues of the project. In Groningen it was felt that there was a mismatch of the priorities of the region (emphasize on infrastructure) and those of the Commission (emphasize on SME), which resulted in a delay in the approval of the single program document. Moreover, the complicated and untransparant procedures prevent actors from participating in projects in the scope of objective 2 and 5b. Besides, firms (especially the small ones) sometimes suffer from a lack of information about the possibilities how to use the EU Funds. Another problem mentioned was that after a proposal has been submitted in Brussels, it took sometimes a long time before the decision was taken by Brussels, and then the money had to be spent within a few months. This raises difficulties when firms do not have the possibilities to carry out a project in a very short run. On the other hand, actors use the EU policy instruments, as these result in a substantial financial flow to the region. The financial means are considered to be a welcome addition to the available funds in the region, and contribute to the realization of projects, which fit to the needs of the region.

Inadequacies in implementing policies

Sometimes there are inadequacies with regards to the formulation and implementation of policies. This especially occurs in the field between the different policies: economic policies, environmental policies and spatial planning policies, which have a multisectoral nature. The aims of these polices can be in conflict with each other, which results in frictions among policy makers and citizens. These frictions can be solved when there would be a better coordination of these different policies.

6.3 Strategies of entrepreneurs

In this section strategies are examined by analysing the motives of entrepreneurs for settlement or not-settlement in Groningen, cooperation in networks and future strategies.

Motives of firms for settlement in Groningen

A mix of motives can be put forward why firms decide to settle in Groningen:

a. Internal factors (pull factors);
   - relatively low land prices;
   - subsidy measures like IPR;
   - space and quietness;
   - open water/ports;
   - availability of raw materials (salt, gas, magnesium methyl chloride etcetera);
   - relatively good infrastructure (except for the ringroad around the city of Groningen and the N33);
   - no congestion on the roads;
   - good attitude of labourers;
   - availability of labourers, both low and high educated;
   - presence of a knowledge infrastructure around the University of Groningen and the Academic Hospital.

b. External factors (push factors);
   - congestion in the Randstad, the urban part in the West of the Netherlands. This results in a shift of companies to the middle parts of the Netherlands and also to the more northern parts like Drenthe, Friesland and Groningen;
   - European integration, in particular closer contacts with the Middle and Eastern European countries and the Scandinavian countries. This may result in a new economic corridor from west to north Europe. Groningen has the advantage that it is located in this corridor and can hence profit from a higher density of economic activities [1].

It has to be stressed that the final decision on settlement depends often on a mix of the factors above. New firms come from both inside and outside Groningen. Firms from outside Groningen come from other parts of the Netherlands (mainly Randstad) and from abroad.

[1] Although this reason was often mentioned in the interviews, it can be doubted whether in this context the location of Groningen matters, or that distances in an extended Europe are so large, that it makes no sense whether a firm is located in the western part of the Netherlands or in the northern part.

Motives of firms for leaving Groningen

- Globalization of production. This especially occurs in subsidiaries, when the production is shifted towards low wages countries;
- reorganization of multinational enterprises; this can result in closing of subsidiaries in Groningen;
- moving to a more central part of the country with a higher density of firms. Sometimes only the main office of a firm is moved to a central part of the country, leaving the production unit in the region.

Motives of firms for not settling in Groningen

- Image: the distance between the centre of the Netherlands (Randstad in the western part of the country) and Groningen is considered as too large, both in physical as in psychological terms. It has to be remarked that distance is a relative notion: the distance between the Randstad and Groningen is about 250 kilometres or about 2.5 hours travelling by car;
- thinness of the economic structure: some firms prefer the proximity of a large number of other firms, in order to have the opportunity of a tight network and to have supplying and processing firms in the neighbourhood and a sufficient variation in the supply of labour (which is available due to the presence of a large number of companies).

No redeployment policies

In the period 1980-1996 there were no closures of big firms in Groningen, which induced to implement redeployment policies. The exodus of labourers from big enterprises is more a stepwise process, in which labourers are fired in groups. The fired workers can apply under the common measures of active and passive labour market policies.

Financial infrastructure

The financial infrastructure is well developed in the Netherlands and the availability of financial and credit services do not differ among the various provinces in the Netherlands. On the whole, when an entrepreneur can provide a promising business plan, no problems arise in obtaining credits.

Networks

Entrepreneurs participate in networks. In each town there are commercial clubs of entrepreneurs. When a company is part of a multinational enterprise, this company participates in the network of subsidiaries of the parent company. Entrepreneurs have also contacts with other entrepreneurs in the same branch and with entrepreneurs in the region (employers organisationVNO/NCW, Chamber of Commerce). Besides, entrepreneurs participate in networks with policy makers. Since the mid 1980s contacts of entrepreneurs and policymakers have been improved to a large extent, due to a more favourable attitude of local policy makers towards firms.

Usually, networks are inward looking, since they mainly consist of local actors. However, actors from the neighbouring provinces of Friesland, Groningen and Emsland also participate in the networks in an increasing extent. External actors from other regions are less frequently included in the networks. Networks are used for the exchange of information, goods and services. Sometimes they are also used to mobilize joint forces and financial means for broader purposes, for instance the successful action on the doubling of the A7 in the beginning of the 1980s and the establishment of the Rail Service Centre Groningen in Veendam in 1995.

Opportunities and threats for entrepreneurs in the near future

Opportunities:
- the density of firms is increased by the policies towards clustering of economic activities; hence there is more critical mass and the frequency of contacts between actors increases. This may enhance the general level of knowledge. Moreover, in an environment of many firms, a variety of different skilled employees is available, which facilitates the filling of vacant jobs;
- further improvement of the logistical possibilities in the Rail Service Centre Groningen in Veendam when transport connections with Germany (i.e. railway Groningen-Leer, with connection to Hamburg and Bremen) are upgraded;
- further extension and upgrading of the knowledge cluster in the city of Groningen (R&D of the university, medical activities, biotechnics and IT);
- availability of abundant energy, due to the recent completion of the new energy plant in the Eemshaven;
- the possibility of the construction of an ethylene pipe to Delfzijl, which opens new production perspectives.

Threats:
- the thinness of the economic structure, which hampers a close interaction of actors.

6.4 Strategies of farmers and farm women

6.4.1 Introduction

In Groningen, arable farming is the most important sector within agriculture, which implies a low input of labour compared to the number of hectares. Contrary to other rural regions in the Netherlands, where more intensive horticulture and indoor livestock has been introduced, Groningen experienced predominantly a process of scale enlargement within arable and dairy farming. While in the regions with intensive cultivation the number of jobs remained stable in the 1980s and 1990s, it decreased in Groningen, where extensive agriculture was more important (Overbeek et al., 1998). However, the decrease in jobs in agriculture had little impact on the rural environment, because agriculture already contributed for less than 5% to the total regional employment at the beginning of the 1980s. More important is the increase in the scale of life, which affected the provision of services to the population in smaller municipalities, especially if they are thinly populated.

Until now, the opportunities for pluriactivity were not an importance source of income for farm families in the Netherlands. In Groningen, nearly four out of five farm families belonging to the working population younger than 55 years have their main source of income from agricultural production, while the others have it predominantly from pluriactivity off farm (Overbeek et al., 1998). More than in any other province in the Netherlands, in Groningen farm families have the tradition to invest in cultural capital (education). Farmers and farm women are well educated, while children are prepared to find employment outside agriculture. The vulnerable category of workers for changes in agriculture are the mid-aged farm workers, who do not have updated experience with other activities on farm (pluriactivity on farm) and with the labour market outside (pluriactivity off farm).

6.4.2 Pluriactivity on farm

Present situation

In the Netherlands pluriactivity on farm concerns predominantly the home sale of farm products. Processing of farm products, tourism on farm, maintenance of the landscape occurs on few farms, but it is increasing. Groningen has few farms with those activities: one fifth of the farm families did so in 1995. Most of them are related to arable farming and restricted to activities for the local population (selling potatoes and doing mechanical work for other farmers). Further, an important share of arable land has been transformed in forest area (in the scope of set-aside and the accompanying measure on forestry of the Mac Sharry reform of the CAP). Although its landscape offers silence and space and many farms represent the cultural heritage of the region, its attractiveness for tourists has still to be developed.

According to some local leaders and members of the province, other activities on farm occur less often than it might be expected. An example is the Dollard region, which includes the north east of Groningen and Ost Friesland in Germany. Despite the tourist track which connects the Dutch and the German part of the region, in Ost Friesland there are more other activities on farm started than in Groningen. Another example is the plan to develop a 'Blue City' in the eastern Oldambt region (see section 6.2.1). This implies the transformation of farmland into a lake and forest/natural area to attract new residents and tourists, and thus new activities in the region. Farmers initially discouraged this plan by providing examples that the region could flourish without such a project. Further, the budgets for the protection of the landscape and rural amenities have been under used. Farm families have taken fewer subsidies for rural development (LEADER, 5b and national programmes) because they lack the co-operation with other stakeholders in the region.

Therefore, it might be discussed why farm families do *not* start other activities on farm. Several reasons can be put forward:

- firstly, the size and organisation of agricultural production might provide better income opportunities. The number of arable farms is decreasing, but there is an ongoing substitution from extensive production into more intensive land use. Often, the new types of production like cattle, vegetables and bulbs are started by newcomers from other provinces, who had to move because of spatial competition with other functions;
- secondly, the high land value might sooner stimulate farmers to sell their land and to

stop with farming. In Groningen, there are some farmers who sell the land to investing companies and lease it back afterwards to continue with arable farming. Hence, the high land value results in an income from property and does not encourage the propensity to search for other activities;

- thirdly, in Groningen farmers might be less innovative compared to those in other rural regions, who shifted already from agricultural production dependent on EU income and price policies towards intensive production dependent on the market (Overbeek et al., 1998);
- fourthly, the development of other activities on farm has still a sectoral basis and lacks rural renewal. There is little strategic cooperation between different sectors to realise arrangements based on an integration of different local activities or to create a network of providers with similar consumers' activities (like bed and breakfast circles). Further, the marketing of other activities might be improved to reach consumers outside the region and more based on value added (Borgstein et al., 1997). On the other hand, there are examples of successful strategies like farm women who connected different farm activities and local amenities through a cycle track and have targeted this to specific groups of consumers who are interested in the cultural heritage of rural regions;
- fifthly, well-educated farm(ers) women have already a job outside.

There are also reasons why farm families *prefer* other activities on farm.

- firstly, most farm(ers) women who left the labour market off farm, have problems to re-enter the primary segment of the labour market, which requires updated professional and management experience;
- secondly, some women prefer those activities, because they are more easy to combine with care activities than pluriactivity off farm (Overbeek et al., 1998).

Future situation

There is a trend to stimulate pluriactivity on farm, like the retail sale of regional products and tourism, and to increase organic farming. Often, the labour input of women is decisive to start with other activities. However, many farmers are ambiguous about pluriactivity on farm. They discuss the demand of land for housing and recreation that might restrict the employment in arable and dairy farming. Until now few farmers were able to integrate the consumers demand for regional products and tourism with agricultural objectives. Local leaders emphasise that this process will require time, in which farm families should shift their perspectives from the government to the opportunities of the consumers market. In the traditional poorer regions like the Veenkoloniën in the south east of Groningen and the north east of Drenthe there is more progress in this development than in the traditional richer regions (Oldambt). A more promising perspective might be to increase high tech farming (in relation to environmental measures) and to start with new agricultural products as a second source of income. It has been expected that those types of production will be more intensive to compete with the higher prices on the land market (Strijker, 1996).

6.4.3 Pluriactivity off farm

Present situation

Compared to other EU countries, in the Netherlands pluriactivity off farm is less important (Overbeek et al., 1998). Coherent with the competitiveness of land use, cultural values, conditions to get a loan for investments, agricultural policies and municipal and national policies, that support only to take over a *viable* farm which is able to provide a main source of income, there is more often a separation between agricultural activities and other activities. The result is that at regional level, there is only a minority of the labour force working in agriculture, while at farm level the remaining workers are predominantly employed in agricultural activities.

In Groningen a quarter of the farmers between 15-64 years has a job outside (CBS, Agricultural Census 1997). There is hardly information about the number of farm women with a job outside, because those women are often not registered as a farm worker. Results from a representative survey among farm women in Groningen show that a quarter of farm women have a job of at least 8 hours a week or 50 days a year (Overbeek et al., 1998). If we consider that in some families both men and women are pluriactive, it might be estimated that in Groningen two fifths of farm families are pluriactive off farm. Given the more flexibility of the labour market in the last years, it was not a problem to find a job outside. The farm workers who still have to find a job outside are often less qualified than the workers who have already a job outside.

Future situation

The number of farm families that tend to combine agricultural production with a job outside is expected to increase. The increase in pluriactivity will be not so much the male inheritors who consider farming as their main source of income, but women who will combine more often child care with paid work. They will continue their own labour perspective for which they have been qualified. The number of men who tend to combine a main job outside with a hobby farm is expected to increase, dependent on the extent to which financial and policy measures support people to have a farm residence and to contribute to the maintenance of a rural landscape.

6.4.4 Conclusion

Pluriactivity is still less evident for farm families and is reflected in the low investments in physical and human capital to get other activities on and off farm. Although young people (sons) are well prepared to take over a farm, they are hardly prepared for a shift to other professions during their working life. The result is that they will rely predominantly on the employment opportunities in the secondary segment of the labour market [1]. Women are better

[1] The legal security of jobs is highest in the primary segment of the labour market. It decreases when going to the secundary segment and decreases further when going to the tertiary segment.

prepared for a profession in the primary segment of the labour market, and they will continue this more often during their working life, if the labour organisation on farm and in the household allow them to do this.

6.5 Strategies of labourers, young people and women

In chapter 4, it has been explained that the negative and positive migration rates are in balance and that they are mostly related to the flows of students. The education level of the labour force is equal to the national average and that of the urban regions, but above the level of other rural regions. Young people with a third level of educational attainment often work in Groningen, but move to Drenthe, that they consider being a more attractive residence area. The participation rate of women is similar to women in other rural regions, but lower compared to women in urban regions. A 'constraint' is the high level of informal services and voluntary work in rural regions, which reduces the demand for paid jobs. Further, the ideology and status of the breadwinner-arrangement to have a housewife who does not participate in the labour market to get paid work, is still existent, also in farm families.

Groningen has a high number of people who are unemployed for a long time. In the eastern region, there are many low-educated people employed in public (subsidized) jobs created to decrease unemployment (Oldambt). The tradition of large landowners with many hired farm workers, resulted in a high degree of organisation of labourers. Nowadays, labour unions, employers and public organisations find each other easily in order to create employment. However, it might be asked whether, compared to other regions, the propensity of unemployed to retrain is too low.

Considering the employed people, labour unions stress the importance of permanent training by including a number of days in the collective labour agreements to follow courses. Although the attitude of labourers towards education and permanent training is improving, the opportunities for training in the region hold predominantly for people with an upper secondary or tertiary education. Further, small enterprises in rural parts outside the city of Groningen have fewer strategies to realise a qualified labour supply on the long term.

Most of the new jobs resulting from changes in labour demand are occupied by young and educated people, who are able to commute or to move and thus to enlarge their functional size of the labour market. In rural regions, the distance to new labour markets is a problem for low-educated people and for women as second earners who search a job in health care and tourism. Although there is a labour demand, public traffic is insufficient to respond to the flexible work hours in those branches, while the potential incomes are considered too low to invest in private transport means. The result is a sorting-out process with young and educated people moving to the suburban areas of the city of Groningen, while elderly and low-educated people are staying behind in the more remote parts of the region.

A discussion about a duality of the labour market makes sense, if both the demand of labour and the supply of labour will be analysed. A general trend is an increase in flexible jobs and workers. In Groningen the problem is that the labour demand in the secondary segment of the labour market is lower compared to the supply of unemployed for this segment. Therefore, the objective of employment services is to consider predominantly unemployed dependent on the second segment of the labour market. Contrary to the 1980s and the beginning of the1990s, when groups of unemployed were targeted on social characteristics as gender and ethnicity, nowadays they are sooner checked on their opportunities to enter the labour market. According to this analysis based on the *distance* to the labour market, a qualification strategy for each individual job seeker will be developed. A longer distance to the labour market implies more requirements to invest in training and social qualifications. Since unemployed have problems to enter the labour market, labour unions give also emphasis to a better flow of low skilled employed from secondary to primary segments of the labour market. Therefore, they promote more education facilities for low skilled employed.

Most of the investments for training and social qualifications for unemployed will be related to the labour demand, because employment offices have to co-finance the facilities for training and education with a decrease in unemployment benefits. Therefore, the share of women that is able to follow courses is similar with their share of registered unemployed (with an unemployment benefit). However, their share is lower if we take into account that women are overrepresented in the non-working population, which includes many people who are hidden unemployed.

6.6 Analysis of the interaction of internal actors

Interaction of internal actors

Various forms of networks exist: between entrepreneurs, between policy makers, between labourers, between farmers and between members from two or more of these groups. The networks can be formal, like the Chamber of Commerce, commercial clubs in the towns, Stichting Blauwe Stad, trade unions and producer unions. Informal networks also exist, for instance cooperation between personnel managers of different companies, contacts of entrepreneurs and policy makers, contacts of entrepreneurs and members from the employment services, entrepreneurs and schools etcetera. The area covered by these different forms of networks varies: some networks are local; other networks cover the whole province.

Assessment

Networks are small, surveyable and characterized by easy communication. Groningen is a small region and local actors know each other. Although on the whole the functioning of the networks is assessed to be reasonable or good, also some critical remarks can be made. The weaknesses of the small networks are that actors are not very critical to each other in fear to loose the unity among actors, that the actors are too much inward looking and that the density among actors is too low. As a result of the low density, contacts between actors have the character of sociability instead of an incentive to innovate, which often occurs in 'more stressed' networks, i.e. networks in an environment with a high density of actors and a high frequency of contacts. With regard to this aspect the functioning of the network could be improved. Entrepreneurs themselves are active in increasing the density of actors in their business sites. AKZO Nobel advertizes in its mission that 'AKZO Nobel Delfzijl is an attractive place of settlement for business units, joint ventures and other firms'. Firms in Veendam pushed for the establishment of the Rail Service Centre Groningen and entrepreneurs in knowledge intensive activities in the city of Groningen created an attractive atmosphere for other firms. So in the corridor Groningen-Veendam-Delfzijl, in which about 70% of employment is located, entrepreneurs contributed to an attractive business climate.

Within the networks some local leaders can be identified: actors who are able to push and to activate other actors to a large extent. As Groningen has quite a long tradition of industrial entrepreneurship, local leaders in the networks of entrepreneurs consist both of native Groningen entrepreneurs as well as entrepreneurs of non-Groningen origin. As immigrants usually tend to do, these newcoming entrepreneurs have the capability to mobilize other local actors, probably due to the fact that their attitude differs from the local actors in Groningen.

6.7 Analysis of the interaction of internal and external actors

Interaction of internal and external actors

External relationships exist in different forms. At the level of regional policy makers, there is a close cooperation with the provinces of Drenthe and Friesland. The main reason for this cooperation is that all the northern provinces are located in the periphery of the Netherlands and that they are - right or not right - considered as lagging areas. Despite the cooperation, there was also some competitiveness among the three provinces in their strive to attract new firms. However, in recent years the provinces have more or less left this competitiveness, and now operate as policy makers of one economic area in the northern part of the Netherlands (see section 6.2.1). Due to this cooperation, the three provinces were able to give a joint answer to the Langman report (1997), in which the future national financial support for the economic development in the three provinces was outlined. Nevertheless, there are still policy makers who want to favour their own municipality at the costs of others, so the cooperation can still be improved. Besides, contacts with Germany are embodied in the Ems-Dollard Region and the New Hanze Interregion. The emphasize in these contacts is mainly on getting acquainted with the neighbour. Contacts with external actors from other parts of the Netherlands or outside the Netherlands are less frequent. Employment services in the municipalities located at the Dutch-German border exchange each other's vacant jobs. Subsidiary businesses have external relationships with the parent company. Although subsidiaries are dependent on the parent company, a lot of knowledge is exchanged in these relationships. Firms have also external relationships with firms outside Groningen, in order to exchange information, goods and services.

The relationship between internal and external actors consists both of cooperation and competitiveness. Cooperation occurs in the field of exchange of information and knowledge and in joint strategies towards regional development. Competition also exists in the relationship of internal and external actors, since a large part of the regional product in Groningen is sold at markets outside Groningen, both in other parts of the Netherlands and abroad.

Exogenous/endogenous development model

The dynamics of the region comes both from local actors and external actors. Endogenous forces for development are the clusters of economic activities in the corridor Groningen-Veendam-Delfzijl. Both policy makers and entrepreneurs have a strategy to strengthen the economic activities in this corridor. The abundant space can also be referred to as an endogenous force for development. External forces are the congestion in the Randstad. As a consequence firms are pushed to other regions of the Netherlands.

7. Development of employment: a synthesis

7.1 Introduction

In this chapter first an indication is given of the centres of employment in Groningen. As a next step a SWOT analysis is made of forces affecting employment creation in 1980 and 1997. In section 7.4 the key factors of success and decline behind employment performance in Groningen are identified. In the two last sections an assessment of the policies and strategies towards employment creation and of the interaction process of actors is given.

7.2 Distribution of activities in the region

In 1997 about 43% of employment was located in the city of Groningen and another 27% in the smaller towns of Hoogezand, Veendam, Winschoten, Stadskanaal and Delfzijl. This implies that most economic activities are located in a southwest-northeast corridor in the region, and that in the north western and south eastern part there are few employment opportunities. Within this corridor three main clusters of economic activities can be distinguished: a knowledge cluster around the city of Groningen, a cluster with transport and logistic activities in Veendam and a chemical cluster in Delfzijl. This corridor is an attractive place of settlement for firms, since they can profit from a relative high density of other firms.

7.3 SWOT analysis for 1980 and 1997

The SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis is just a convenient and systematic way to analyse the different aspects reported in the previous chapters to identify the key factors of rural employment development. The 1980 SWOT analysis focuses on explaining what was going on in the region in terms of employment while the 1997 SWOT analysis focuses more on the future development of the region in terms of employment.

Strengths and weaknesses are the key factors *within* the region that explain employment development in the region. Elements in the previous chapters forming the local resources, labour demand, labour supply and labour market actors' strategies are systematically re-examined to isolate dominant strengths and weaknesses for employment development. So strengths and weaknesses are characteristics of the region.

Opportunities and threats are the key factors *within* or *outside* the region that may affect the development of rural employment. They may also be identified through a careful re-examination of elements forming the local resources, labour demand, labour supply and labour market actors' strategies. Since opportunities and threats may include elements external to the region, such as market development or national/European regulations, an effort has been made here to broaden the analysis to external factors that may be identified as opportunities and threats for the region. So opportunities and threats are the possibilities to use the strengths of the region.

The items of the SWOT are considered from the employment perspective and are based on the assessment of the authors.

SWOT analysis

Strengths and weaknesses

Location of the region (proximity to a large economic centre) in the regional context	1980	1997
Groningen includes the city of Groningen, which is the economic centre of the northern part of the Netherlands. During the period 1980-1997 the knowledge infrastructure in this city has been extended, and by doing so the attractiveness of the city as a place of settlement has been further enhanced.	+	++

Location of the region (proximity to a large economic centre) in a global context	1980	1997
Groningen has a peripheral location relatively to the economic centre of the Netherlands (the Randstad in the western part of the country) and to other large economic centres in Europe. In this sense Groningen has a more peripheral location than the two other northern provinces of Drenthe and Friesland.	--	--

Local resources which favour employment	1980	1997
Groningen has many mineral resources, like gas, salt and magnesium chloride. This attracts rather capital intensive industries.	+	++

Eucation level of the labour force	1980	1997
Due to the University of Groningen there are a large number of highly educated people. The increasing activities in the high tech activities around the city of Groningen emphasize the importance of high skilled labour. Hence the double plus arises in 1997.	+	++

Low cost labour	1980	1997
Due to the collective labour agreements (CAO's) more or less the same wages apply in all parts of the Netherlands. Labour costs for most labourers in the northern part of the Netherlands are only a few percents lower than in the other provinces in the Netherlands.	0	0

Well-developed physical infrastructure	1980	1997
The quality of the existing roads is good and there is no congestion, except for the entry roads to the city of Groningen, nowadays. In the early years of the 1980s the connection from the city of Groningen to the border of Germany (A7) has been doubled. Nevertheless, connections with outside can be improved, like a high speed train with the western part of the country.	+	+

Favourable industry structures	1980	1997
Groningen has a long industrial tradition, which implies that the industrial structure is based on traditional industries, like textile, agribusiness and shipbuilding. Nowadays the industrial structure is complemented by modern capital intensive industries and activities in the IT sector. Nevertheless, the industrial mix in Groningen can not be indicated as favourable, as the traditional industries tend to loose employment. Hence, the eastern part of Groningen was both in 1989 and in 1994 selected as objective 2 area, which reflects a situation of a traditional industry undergoing restructuring.	--	-

Favourable climate	1980	1997
Although the climate offers favourable working conditions for labourers (not too hot, not too cold), the climate is less favourable for tourists. The season with reasonable weather for cycling and walking is only attractive in summer time. During wintertime the climate is unsuitable to provide any open air tourist attractions.	0	0

Favourable amenities	1980	1997
Amenities are not abundant in Groningen, except for the open landscape, the Groningen Museum and several 'borgen', former houses of local chiefs. Although these attract some tourists, on the whole their impact on employment is negligible.	0	0

Capacity (knowledge, skills and attitude) of local actors: *policy makers*	1980	1997
The clustering of economic activities, low land prices and investment subsidies can be assessed to be positive. The insufficient cooperation with the provinces of Drenthe and Friesland, and the rather strict attitude of policy makers towards entrepreneurs were weak points in the early 1980s. However, since the end of the 1980s the attitude of policy makers towards entrepreneurs has been changed and in recent years the cooperation between policy makers of the three northern provinces has been improved as well. Policy makers are rather dynamic and dare to launch innovative plans, like the Blauwe Stad and the reconstruction of the centre of the city of Groningen.	0	+

Capacity (knowledge, skills and attitude) of local actors: *entrepreneurs*	1980	1997
Groningen has a long tradition of industrial entrepreneurship. Entrepreneurs are conscious of making their business sites attractive for other firms in order to increase the density of actors in the network and to increase opportunities for complex building and for sharing service units.	+	+

Capacity (knowledge, skills and attitude) of local actors: *labourers*	1980	1997
The attitude of labourers to work is general referred to as good and loyal. In the eastern part of the region there is a tradition of social unrest. However, this does usually not endanger employment opportunities, since policymakers feel often pressed to provide extra financial support in order to prevent or to roll off social disturbances, and since trade unions emphasize the continuity of enterprises.	+	+

Presence of universities and other major research centres	1980	1997
The university is one of the largest employers in Groningen. Besides, it creates a knowledge infrastructure around the city of Groningen, which attracts many high tech activities. The importance of this infrastructure for employment has increased since 1980, for example due to the establishment of the Zernike Science Park and the extension of activities in biotechnics, the medical sector and the IT sector.	+	++

Capacity of local actors to innovate	1980	1997
Due to the dependent attitude of Groningen people, their capacity to innovate is rather low. However, when they are convinced by other people of an innovation, they put their doubts aside and embrace the new ideas. Innovating local actors are mainly originating from the groups of young people, policy makers and entrepreneurs.	+	+

Entrepreneurial climate: *concentration of firms*	1980	1997
The relatively thinness of the economic structure hampers the creation of networks in which nformation, products and services can be exchanged. Nevertheless, firms try to make clusters of firms in Veendam, the city of Groningen and Delfzijl.	-	+

Entrepreneurial climate: *favourable policies*	1980	1997
Several factors play a role, like low land prices, investment subsidies, sufficient space and favourable fiscal treatments.	+	+

Specialization of the regional economy *Diversification of the regional economy*	1980	1997
Diversification and specialization are more or less two sides of the same coin. The extent of diversification can be measured by looking whether the regional distribution of the different branches in total employment converges towards the national distribution. When regional employment is concentrated in a few branches, the regional economy is specialized. There is no specialisation of production in Groningen, so no extraordinary sensibility for market fluctuations exists. Specialization in a few sectors can create a critical mass of marketing infrastructure and services, know how, and other external economies in the region that can sustain development and, hence, employment in these specific sectors. In 1980 the share of employment in agriculture and industries in Groningen exceeded the average share of the Netherlands. In the course of the period 1980-1997 the economic structure in Groningen converged towards the structure of the whole Dutch economy. Diversification in several sectors can minimize risk and facilitate the endogenous development of the region.	0 0	0 +

Vertical coordination within sectors	1980	1997
The situation in Groningen does not deviate from the average situation in the Netherlands.	0	0

Horizontal coordination across sectors	1980	1997
Due to lack of a sufficient number of enterprises in the neighbourhood, the horizontal coordination is weak.	0	0

I*nternal networks*	1980	1997
Networks are small, surveyable and characterized by easy communication. Groningen is a small region and local actors know each other. On the whole the functioning of the networks is assessed to be reasonable or good. However, the weaknesses of the small networks are that actors are not very critical to each other, in fear to loose the unity among actors, that the actors are too much inward looking and that the density among actors is too low. Entrepreneurs themselves are active in increasing the density of actors in their business sites. AKZO Nobel advertizes in its mission that 'AKZO Nobel Delfzijl is an attractive place of settlement for business units, joint ventures and other firms'. Firms in Veendam pushed for the establishment of the Rail Service Centre Groningen and entrepreneurs in knowledge intensive activities in the city of Groningen created an attractive atmosphere for other firms.	0	+

External networks	1980	1997
On the whole networks are too much inward looking and insufficient directed towards actors outside Groningen. In recent years the cooperation with policy makers in the neighbouring provinces Drenthe and Friesland has been strengthened.	-	0

Market 'niches'	1980	1997
The situation does not differ from that in the rest of the Netherlands.	0	0

Tourism	1980	1997
Groningen is not very attractive for tourists. Most tourists come on a day trip.	-	-

East-Groningen: less favoured eastern part of the region	1980	1997
This part of the region is characterized by a relatively high, but decreasing share in traditional industries, a high rate of unemployment, a low-educated and ageing population, a tradition of social unrest and a relatively low per capita income. The problem of the area is that it has few employment opportunities, since it is has no comparative advantages to offer for firms. Within the Netherlands this area is traditionally labelled as a 'less favoured area'.	--	--

Opportunities and threats

European integration and extension	1980	1997
European integration, in particular closer contacts with the Middle and Eastern European countries and the Scandinavian countries, may result in a new economic corridor from west to north Europe. Groningen has the advantage that it is located in this corridor and hence can profit from a higher density of economic activities.	0	+

Congestion in the Randstad	1980	1997
Due to congestion in the Randstad, the urban part in the West of the Netherlands, companies shift to the middle parts of the Netherlands and also to the more northern parts like Groningen.	+	+

Reconsideration distribution means EU Structural Funds in 2000	1980	1997
The current measures of the objective 2 and 5b programmes contribute to the creation of employment. When Groningen should not be eligible for support from the Structural Funds after 1999, a further improvement of the employment situation in certain less favoured parts of the region might be hampered.	0	-

Further reform of the CAP (Agenda 2000)	1980	1997
Agriculture in the south eastern part of Groningen relies to a large extent on the production of starch potatoes; in the other parts of Groningen the production of cereals, sugar beet and potatoes is dominant. A further reform of the CAP may induce a shift from arable to more intensive production and to milk production. This will also result in shifts in the processing industries towards meat and milk processing. Probably employment in both the primary sector and the processing and supplying industries will decrease at a higher rate than without a further CAP reform.	0	-

Competitiveness with low wage countries	1980	1997
Labour costs in Groningen are high relatively to low wage countries. Hence there is a danger that companies move from Groningen to these countries.	-	--

Blauwe Stad (Blue City)	1980	1997
Realization of the project will have positive impacts on employment in the eastern part of Groningen and may enlarge the attractiveness of the area for living and recreation.	0	+

Eemshaven (Eems Port)	1980	1997
Near the port there is a large area, in which 'green' (no polluting) firms can settle. Until now only a few firms have settled there. However, recently the provincial energy plant has moved to this area, which implies a supply of cheap energy. So this is a renewed opportunity, especially for energy consuming firms.	+	+

The items above can be summarized in a table as follows:

SWOT 1980

Strengths		*Weaknesses*	
- *location of the region (proximity to a large economic centre) in the regional context*	+	- *location of the region (proximity to a large economic centre) in a global contaxt*	--
- *local resources which favour employment*	+	- *favourable industry structures*	--
- *education level of the labour force*	+	- *entrepreneurial climate: concentration of firms*	-
- *well developed physical infrastructure*	+	- *external networks*	-
- *capacity (knowledge, skills and attitude) of local actors: entrepreneurs*	+	- *tourism*	-
- *capacity (knowledge, skills and attitude) of local actors: labourers*	+	- *East-Groningen: less favoured eastern part of the region*	--
- *presence of universities and other major research centres*	+		
- *capacity of local actors to innovate*	+		
- *entrepreneurial climate: favourable policies*	+		
Opportunities		*Threats*	
- *Eemshaven*	+	- *competitiveness with low wage countries*	-
- *congestion in the Randstad*	+		

Indifferent items are:

Strengths and weaknesses

- *low cost labour*
- *favourable climate*
- *favourable amenities*
- *capacity (knowledge, skills and attitude) of local actors: policy makers*
- *specialization of the regional economy*
- *diversification of the regional economy*
- *vertical coordination within sectors*
- *horizontal coordination within sectors*
- *internal networks*
- *market 'niches'*

Opportunities and threats

- *European integration and extension*
- *reconsideration distribution means EU Structural Funds in 2000*
- *further reform of the CAP*

The items of the SWOT for 1997 are summarized below:

SWOT 1997

Strengths		*Weaknesses*	
- *location of the region (proximity to a large economic centre) in the regional context*	++	- *location of the region (proximity to a large economic centre) in a global contaxt*	--
- *local resources which favour employment*	+	- *favourable industry structures*	-
- *education level of the labour force*	++	- *tourism*	-
- *well developed physical infrastructure*	+	- *East-Groningen: less favoured eastern part of the region*	
- *capacity (knowledge, skills and attitude) of local actors: policy makers*	+		
- *capacity (knowledge, skills and attitude) of local actors: entrepreneurs*	+		
- *capacity (knowledge, skills and attitude) of local actors: labourers*	+		
- *presence of universities and other major research centres*	++		
- *capacity of local actors to innovate*	+		
- *entrepreneurial climate: favourable policies*	+		
- *entrepreneurial climate: concentration of firms*	+		
- *diversification of the regional economy*	+		
- *internal networks*	+		
Opportunities		*Threats*	
- *European integration and extension*	+	- *reconsideration distribution means EU Structural Funds in 2000*	-
- *congestion in the Randstad*	+	- *further reform of the CAP*	-
- *Blauwe Stad*	+	- *competitiveness with low wage countries*	--
- *Eemshaven*	+		

Indifferent items are:

Strengths and weaknesses

- *low cost labour*
- *favourable climate*
- *favourable amenities*
- *specialization of the regional economy*
- *vertical coordination within sectors*
- *horizontal coordination within sectors*
- *external networks*
- *market 'niches'*

7.4 Identification of key factors of success/decline

Taking into account the findings in the previous chapters on the local resources, the economic activities (demand of labour), the supply of labour and the strategies of the actors in the region, the results of the SWOT analyses in the previous section, and the field of force of the rural region, we indicate in this section the key factors behind the success or decline of employment growth. A key factor of success can be seen as the interplay of a specific group of actors who managed to use specific local resources, who are organized in a certain network and who were successful in creating/maintaining employment (in other words, it is more or less a success story of a specific group of actors). On the other hand, a key factor of decline can be considered as a fatal story of a group of actors, who are not able to maintain employment opportunities, due to specific conditions.

Concentration of employment opportunities

In 1997 about 43% of employment was located in the city of Groningen and another 27% in the smaller towns of Hoogezand, Veendam, Winschoten, Stadskanaal and Delfzijl. This implies that most economic activities are located in an southwest-northeast corridor in the region, and that in the north western and south eastern parts there are few employment opportunities. This concentration has positive and negative effects:

Positive: the concentration of economic activities enhances the density of actors in the networks.

Negative: in certain parts of the region, and in particular in the eastern part, there are too less employment opportunities for low educated labour. On the whole the willingness to commute on a long distance among low educated people is relatively low. This implies that the young low educated, more mobile people leave that part of the region and look for a job elsewhere, whereas the elder low educated people stay. Among this group there is high unemployment.

C*ity of Groningen*

Groningen is the main economic centre in the north of the Netherlands. However, the city is not centrally located in the region, which implies that the neighbouring provinces of Drenthe and Friesland also profit from the city. The city of Groningen is considered as a nice city with a lot of employment. This attracts people and causes spill over effects. The university is one of the largest employers in the city. This has contributed to the creation of a knowledge infrastructure around the city of Groningen, which attracts many high tech activities. The importance of this infrastructure for employment has increased since 1980, for example due to the establishment of the Zernike Science Park and the extension of activities in biotechnics, the medical sector and the IT sector. On the other hand, the city of Groningen has a high unemployment rate, as many young people, who have completed their studies, but have not yet found a job, tend to stay in the city because of its attractiveness.

Peripheral location

From the three northern provinces Groningen has the most peripheral location relatively to the economic centre of the Netherlands (Randstad). So Groningen will profit less from the outflow of firms from the congested Randstad. Therefore, Groningen has to strengthen its economy (and so its employment opportunities) more by its own power.

7.5 Assessment of policies and strategies towards maintaining and augmenting employment

In this section it is assessed to what extent policies and strategies of policy makers, entrepreneurs, farmers and labourers targeted at maintaining and augmenting employment were effective. Of course, the degree of contribution will be difficult to specify as it is difficult to disentangle factor effects, but it is done tentatively.

Description and assessment of policies and strategies of policy makers towards maintaining and augmenting employment

Regional policy makers do not have one or two focal points in their strategies and policies towards maintaining and augmenting employment, but try to achieve employment growth by various ways. The most striking issue in the strategies of regional policy makers is their shift in the 1990s towards a more open attitude towards firms. This shift is related to the society wide tendency towards more liberalization, the pressure of firms and the gradual replacement of old policy makers by a new generation. As main strategies of policy makers have been identified:

a. cooperation with the provinces of Drenthe and Friesland in the field of regional development; this cooperation has been strengthened in recent years;
b. in recent years a strategy towards clustering of economic activities in well defined zones came into being;
c. a change in the strategy of municipalities and the province with regard to the settlement of firms: from a 'strict applying the rules' attitude to an attitude of 'solving together with firms settlement problems';
d. a strategy towards favourable settlement conditions for firms, in which the focus recently shifted from attracting new firms towards supporting existing firms;
e. a strategy towards the improvement of the image of the region by launching innovation projects.

Description and assessment of the policies and strategies of entrepreneurs towards maintaining and augmenting employment

Although companies are a direct source of employment, usually the purpose of a firm is not to create employment but to make profits. In order to achieve this goal a firm needs labour and a location of settlement. In the past decade main incentives for firms for settlement in Groningen were the availability of mineral resources, a large supply of both high and low educated labour, investment subsidies, open water/ports and low land prices. These incentives are external factors for entrepreneurs. However, firms like to be in a neighbourhood, where other firms have been settled as well. So the settlement of one firm acts as an attractive force for other firms. Hence due to the establishment of firms there is a knowledge infrastructure around the city of Groningen, a cluster of chemical activities around Delfzijl and a transport/distribution cluster in Veendam. Within these clusters there are leaders who promote their business site to other firms. In the knowledge cluster around the city of Groningen there was a close cooperation between firms and the University of Groningen and the Academic Hospital.

Description and assessment of the policies and strategies of farmers towards maintaining and augmenting employment

Sofar the most important strategy of farm households has been to adapt by farm enlargement, mainly by an increase in the agricultural area and predominantly in arable and dairy production. This strategy is still dominant but other strategies are gaining in importance. In this respect a slight tendency towards diversification of farm activities and the introduction of on-farm activities like processing of farm products, forestry and nature conservation can be mentioned. On the whole farm women are better qualified for a job outside the farm than men. It is expected that the percentage of farm women involved in off farm activities will increase, as they tend to continue their own labour perspective for which they have been qualified.

Description and assessment of the policies and strategies of labourers towards maintaining and augmenting employment

The trade unions stress the importance of training: they take care that this strategy is covered in collective labour agreements and strive to increase the opportunities for training for employees, especially for employees with only compulsory training. Just in this group there are many unemployed. Employment offices have developed a qualification strategy for each individual job seeker with respect to social qualifications. This last point is very relevant, as there are many persons, which are already for a long time unemployed. Due to the financing system and the fact that the share of women in hidden unemployment is relatively high, there are less opportunities for training for women.

Many young people stay in the city of Groningen after they have completed their study. If they do not find a job (in Groningen, but often outside the region), they stay as unemployed in the city. Hence, the unemployment rate in the city of Groningen is rather high.

Successful policies and strategies of actors towards maintaining and augmenting employment

The most successful strategies towards augmenting employment were:

- cooperation of enterprises with the University of Groningen and the Academic Hospital;
- extension of activities based on available raw materials;
- the construction of the Rail Service Centre Groningen in Veendam;
- relocation of government services to peripheral parts of the country: for Groningen this concerns mainly the relocation of a part of the PTT, the national public post and phone

company, from The Hague to the city of Groningen and the Dienst voor het Wegverkeer (Service for Road Traffic) to Veendam.

A non-successful strategy towards augmenting employment was:

- the harbour area 'Eemshaven' was delivered during the economic stagnation in the beginning of the 1980s. However, no additional policies were implemented to exploit the harbour area, and it was not integrated in the regional economy. Due to these reasons this harbour failed.

7.6 Assessment of the interaction process of actors

Networks are small, surveyable and characterized by easy communication. Groningen is a small region and local actors know each other. Although on the whole the functioning of the networks is assessed to be reasonable or good, also some critical remarks can be made. The weaknesses of the small networks are that actors are not very critical to each other in fear to loose the unity among actors, that the actors are too much inward looking and that the density among actors is too low. As a result of the low density, contacts between actors have the character of sociability instead of an incentive to innovate, which often occurs in 'more stressed' networks, i.e. networks in an environment with a high density of actors an a high frequency of contacts. With regard to this aspect entrepreneurs in the main economic corridor Groningen-Veendam-Delfzijl are active in increasing the density of actors in their business sites. Besides, policy makers apply nowadays a strategy towards a further clustering of economic activities in economic zones

Within the networks some local leaders can be identified: actors who are able to push and to activate other actors to a large extent. As Groningen has quite a long tradition of industrial entrepreneurship, local leaders in the networks of entrepreneurs consist both of native Groningen entrepreneurs as well as entrepreneurs of non-Groningen origin. The new coming entrepreneurs have the capability to mobilize other local actors, probably due to the fact that their attitude differs from the local actors in Groningen.

Contacts with external actors from other parts of the Netherlands or outside the Netherlands are less frequent, which are for a part due to distance. However, with the neighbouring provinces a rather long tradition of cooperation exists, which has increased in recent years. There is also cooperation with the German region Emsland.

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Annex 1 List of interviewed persons

Mr. J. van Dijk	Faculteit der Ruimtelijke Wetenschappen RUG (Faculty of Spatial Sciences, University of Groningen)	Groningen
Mrs. M. Edzes	Akkerbouwer/recreatief ondernemer (Arable farmer/ tourist entrepreneur)	Sappemeer
Mr. H. Haerkens	VNO-NCW (Employers organization for the northern provinces)	Haren
Mr. Harbers	Arbeidsbureau Winschoten (Employment Service Winschoten)	Winschoten
Mr. Harssema	NAI (Northern Agricultural Innovation Centre)	Groningen
Mr. Hemstra	Arbeidsbureau Winsum (Employment Service Winsum)	Winsum
Mr. J. Kleine	Projectbureau Blauwe Stad (Project service Blue City)	Winschoten
Mr. M.W. van Koldam	Kamer van Koophandel Groningen (Chamber of Commerce Groningen)	Groningen
Mr. Poortinga	Provincie Groningen (Province of Groningen)	Groningen
Mr. R.P. Prins	AKZO Nobel (Chemical industry firm)	Delfzijl
Mr. J.H. Rietman	Provincie Groningen (Province of Groningen)	Groningen
Mr. M.K. Slagter	Gemeente Veendam (Municipality of Veendam)	Veendam
Mr. A.E.J. Smidt	Oud-burgemeester Pekela en Eemsmond/ ondernemer (Previous mayor of Pekela and Eemsmond/ entrepreneur)	Usquert

Mr. Voorthuizen	NAI (Northern Agricultural Innovation Centre)	Groningen
Mr. C.M. de Vos	Burgemeester van Veendam (Mayor of Veendam)	Veendam
Mr. J. de Vries	JONKER Veendam bv (Transport firm)	Veendam
Mr. H.E. Waalkens	Gebiedskenner Oldambt (Expert local situation)	Finsterwolde
Mr. J.G. Wiarda	Provincie Groningen (Province of Groningen)	Groningen
Mr. J.W. Zuidema	NOM (Investment and development company for the northern Netherlands)	Groningen

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Annex 3 Tables

Table A2.1 Temperature, sunshine and precipitation in Groningen a) and the Netherlands b) (averages for the period 1961-1990)

	J	F	M	A	M	J	J	A	S	O	N	D	Year
Temperature (daily averages in degrees Celsius)													
Eelde	1.3	1.6	4.1	7.2	11.6	14.6	15.9	16.0	13.4	9.8	5.4	2.5	8.6
Netherlands	2.2	2.5	5.0	8.0	12.3	15.2	16.8	16.7	14.0	10.5	5.9	3.2	9.4
Sunshine (hours per month)													
Eelde	39	68	103	151	195	192	180	182	129	94	53	33	1,417
Netherlands	47	77	107	153	197	192	187	185	134	103	55	43	1,480
Precipation mm per month)													
Eelde	67	44	58	48	56	69	80	70	69	71	80	76	787
Netherlands	73	52	67	55	63	74	77	72	68	70	80	86	835

a) Measured in Eelde (located only a few kilometres outside the border of the province of groningen;
b) Measured in De Bilt (in the center of the Netherlands).
Source: Koninklijk Nederlands Meteorologisch Instituut (KNMI).

Table A2.2 Infrastructure endowments in Groningen, 1980-1995

Variable	1980		1985	1990	1994
Motorways, length (Km)	27		47	56	80
Motorways, density (M/Km² total area)	9		16	19	27
Other roads, length (Km)	4,389	a)	4,784	4,758	5,473
Other roads, density (M/Km² total area)	1,479	a)	1,612	1,604	1,845
Railways, length (Km)	208		189		
Railways, density (M/Km² total area)	70		64		
Navigable canals and rivers, length (Km)	428		448	436	436
Navigable canals and rivers, density (Km/total area)	0.14		0.15	0.15	0.15

Source: Eurostat, Regio Database; adaption LEI.

Table A2.3 Distances between locations in Groningen and to locations outside Groningen (in km and minutes)

Km	Gronin-gen	Delf-zijl	Eems-haven	Hooge-zand Sappe-meer	Stads-kanaal	Veen-dam	Win-schoten	Assen	Zwolle	Utrecht	Amster-dam
Groningen	x	30	34	17	52	35	37	27	105	192	180
Delfzijl	30	x	22	26	50	31	25	55	132	220	208
Eemshaven	34	22	x	50	64	47	48	63	141	228	216
Hoogezand-Sappemeer	17	26	50	x	27	13	22	41	119	206	195
Stadskanaal	52	50	64	27	x	18	20	38	107	195	216
Veendam	35	31	47	13	18	x	15	35	105	192	212
Winschoten	37	25	48	22	20	15	x	60	116	204	214
Assen	27	55	63	41	38	35	60	x	79	166	188
Zwolle	105	132	141	119	107	105	116	79	x	91	113
Utrecht	192	220	228	206	195	192	204	166	91	x	42
Amsterdam	180	208	216	195	216	212	214	188	113	42	x
Minutes:	**Gronin-gen**	**Delf-zijl**	**Eems-haven**	**Hooge-zand Sappe-meer**	**Stads-kanaal**	**Veen-dam**	**Win-schoten**	**Assen**	**Zwolle**	**Utrecht**	**Amster-dam**
Groningen	x	35	40	15	50	30	35	25	70	120	120
Delfzijl	35	x	25	35	55	40	35	50	95	150	145
Eemshaven	40	25	x	45	70	55	55	55	100	155	150
Hoogezand-Sappemeer	15	35	45	x	35	20	25	30	80	130	130
Stadskanaal	50	55	70	35	x	20	25	45	85	140	155
Veendam	30	40	55	20	20	x	20	40	80	135	145
Winschoten	35	35	55	25	25	20	x	50	90	154	145
Assen	25	50	55	30	45	40	50	x	55	105	125
Zwolle	70	95	100	80	85	80	90	55	x	60	80
Utrecht	120	150	155	130	140	135	145	105	60	x	40
Amsterdam	120	145	150	130	155	145	145	125	80	40	x

Source: CD-ROM Auto Lease Holland, 1993.

Tabel A2.4 Numbers of different types of schools in Groningen

	1985/'86	1990/'91	1995/'96
Primary schools (basisschool)	418	571	512
Special (secundary) schools	43	45	43
Secundary schools (MAVO, HAVO, VWO)	64	60	28
Lower vocational secundary schools (VBO)	43	33	19
Higher secundary vocational training (MBO)	19	11	10
Higher vocational schools (HBO)	25	3	1
Universities	1	1	1

Source: CBS, Onderwijsstatistieken, several years.

Table A3.1 The ratio of part-time and full-time employees in Groningen, 1987-1994 (x 1,000)

	Total labour force 1987	Total labour force 1994	Abs. growth
0 Agriculture, hunting, forestry and fishing	9	7	-2
1 Mining and quarring	.	.	.
2/3 Manufacturing	37	36	-1
4 Electricity, gas and water	.	.	.
5 Construction	11	11	0
6 Trade, restaurants and hotels	30	31	1
7 Transport, storage and communication	10	13	3
8 Finance, insurance, real estate and business services	12	17	5
9. Community, social and personal services	71	74	3
Unknown	.	.	.
Total	185	194	9

	Part-time 1987	Part-time 1994	Abs. growth	% growth	% of total growth in part-timers	% of total growth
0 Agriculture, hunting, forestry and fishing	2	1	-1	-50	-9	-11
1 Mining and quarring	.	.	.	.	.	.
2/3 Manufacturing	5	6	1	20	9	11
4 Electricity, gas and water	.	.	.	.	.	.
5 Construction	1	1	0	0	0	0
6 Trade, restaurants and hotels	9	11	22	18	22	
7 Transport, storage and communication	1	3	2	200	18	22
8 Finance, insurance, real estate and business services	2	5	3	150	27	33
9 Community, social and personal services	27	31	4	15	36	44
Unknown	.	.	.	.	.	.
Total	47	58	11	23	100	122

Table A3.1 (Continued)

		Full-time		Abs. growth	% growth	% of total growth in full-timers	% of total growth
		1987	1994				
0	Agriculture, hunting, forestry and fishing	7	6	-1	-14	50	-11
1	Mining and quarring	.	.	.	.	.	.
2/3	Manufacturing	32	30	-2	-6	100	-22
4	Electricity, gas and water	.	.	.	.	.	.
5	Construction	10	10	0	0	0	0
6	Trade, restaurants and hotels	21	20	-1	-5	50	-11
7	Transport, storage and communication	9	10	1	11	-50	11
8	Finance, insurance, real estate and business services	10	12	2	20	-100	22
9	Community, social and personal services	44	43	-1	-2	50	-11
Unknown		.	.	.	.	.	.
Total		138	136	-2	-1	100	-22

Source: Enquête Beroepsbevolking (EBB), adaption LEI.

Table A3.2 The ratio of part-time and full-time employees in the Netherlands in the different branches, 1987-1994 (x 1,000)

		Total labour force		Abs. growth
		1987	1994	
0	Agriculture, hunting, forestry and fishing	249	236	-13
1	Mining and quarring	13	10	-3
2/3	Manufacturing	1,036	1,021	-15
4	Electricity, gas and water	50	47	-3
5	Construction	365	387	22
6	Trade, restaurants and hotels	908	1,096	188
7	Transport, storage and communication	324	383	59
8	Finance, insurance, real estate and business services	506	672	166
9.	Community, social and personal services	1,744	2,012	268
Unknown		63	55	-8
Total		5,257	5,920	663

		Part-time		Abs. growth	% growth	% of total growth in part-timers	% of total growth
		1987	1994				
0	Agriculture, hunting, forestry and fishing	46	47	1	2	0	0
1	Mining and quarring	1	1	0	0	0	0
2/3	Manufacturing	131	141	10	8	3	2
4	Electricity, gas and water	3	5	2	67	1	0
5	Construction	36	30	-6	-17	-2	-1
6	Trade, restaurants and hotels	219	312	93	42	25	14
7	Transport, storage and communication	47	67	20	43	5	3
8	Finance, insurance, real estate and business services	81	130	49	60	13	7
9	Community, social and personal services	619	818	199	32	54	30
Unknown		16	17	1	6	0	0
Total		1,198	1,569	371	31	100	56

Table A3.2 (Continued)

		Full-time		Abs. growth	% growth	% of total growth in full-timers	% of total growth
		1987	1994				
0	Agriculture, hunting, forestry and fishing	203	189	-14	0	0	0
1	Mining and quarring	12	9	-3	-25	-1	-0
2/3	Manufacturing	905	880	-25	-3	-9	-4
4	Electricity, gas and water	47	42	-5	-11	-2	-1
5	Construction	329	357	28	9	10	4
6	Trade, restaurants and hotels	689	784	95	14	33	14
7	Transport, storage and communication	277	316	39	14	13	6
8	Finance, insurance, real estate and business services	425	542	117	28	40	18
9	Community, social and personal services	1,125	1,194	69	6	24	10
Unknown		47	38	-9	-19	-3	-1
Total		4,059	4,351	292	7	100	44

Source: Enquête Beroepsbevolking (EBB), adaption LEI.

Table A3.3 Some other agricultural variables in Groningen and other Dutch regions (1989/90)

Variable	Groningen	National	Intermediate regions				Most urban regions						
			Drenthe	Friesland	Flevoland	Zeeland	Overijssel	Gelderland	Utrecht	Noord-Holland	Zuid-Holland	Noord-Brabant	Limburg
Part time farmers (%)	33	32	33	31	13	37	32	40	29	26	21	35	37
Rate of pluriactivity in agriculture (%)	18	23	18	17	18	26	24	33	24	17	16	28	21
Age structure of the agricultural labour force farm holders who are also manager; based on number of persons)													
< 35 year (%)	7	9	7	8	13	6	6	10	9	8	11	12	10
35-44 year (%)	21	21	21	23	36	17	18	19	24	21	22	21	20
45-54 year (%)	30	28	30	28	27	27	26	25	28	31	29	27	31
55-64 year (%)	28	28	28	28	17	32	29	28	25	28	26	29	27
>= 65 year (%)	13	14	13	13	7	18	21	18	15	12	12	11	12
Number of farms (x 1,000)	5.2	124.8	5.2	8.7	2.6	5.1	14.3	22.5	4.8	9.1	15.0	21.9	9.2
(Economic) size of farms (SGM/holding in esu)	53	52	53	52	86	47	38	38	43	63	79	51	52
Composition of agricultural production in 1990													
total agricultural production (mln ecu)	535	15,748	535	945	501	382	1,305	2,404	490	1,133	2,961	3,113	1,340
crop production (%)	48	43	48	16	83	82	6	18	22	77	87	23	41
cereals (%)	9	1	9	1	6	12	0	0	0	1	1	1	1
animal production (%)	52	57	52	84	17	18	94	82	78	23	13	77	59
cattle (%)	9	10	9	15	3	3	15	21	13	4	2	10	5
pigs (%)	5	17	5	3	1	4	28	25	20	1	2	37	27
milk (%)	30	22	30	59	10	6	42	24	39	16	8	18	10
Composition of farming types													
cereal farms (%)	2	0	2	0	0	3	0	0	0	0	0	0	0
general cropping farms (%)	38	15	38	7	68	63	5	5	2	14	10	12	19
horticultural holdings (%)	3	14	3	2	7	4	1	7	7	39	49	10	20
vineyards (%)	0	0	0	0	0	0	0	0	0	0	0	0	0
permanent crop holdings (%)	1	5	1	1	7	10	1	6	7	3	8	5	7
dairy farms (%)	29	29	29	59	11	4	48	30	46	22	18	23	12
drystock farms (%)	18	18	18	27	3	6	22	24	23	18	10	16	11
granivore farms (%)	3	9	3	3	1	1	10	13	7	1	1	21	16
mixed farms (%)	6	10	6	2	4	9	13	15	8	2	3	13	15

Source: Eurostat REGIO and EUROFARM/FSS; adaption LEI.

Table A5.1 Employment growth and unemployment in the municipalities and COROP areas of Groningen

	Employed people		abs. growth	growth yearly	% of total growth	Unemployment (1996) (not-working job-seekers)
	1991	1996				
Municipality						
Appingedam	3,152	2,999	-153	-1.0	-1.6	20.4
Bedum	1,793	2,768	975	9.1	10.1	10.9
Bellingwedde	1,299	1,640	341	4.8	3.5	16.0
Ten Boer	794	940	146	3.4	1.5	11.1
Delfzijl	10,460	11,534	1,074	2.0	11.1	20.9
Eemsmond	4,103	4,106	3	0.0	0.0	17.5
Groningen	80,958	85,430	4,472	1.1	46.2	27.3
Grootegast	2,459	2,478	19	0.2	0.2	14.9
Haren	4,797	5,203	406	1.6	4.2	10.5
Hoogezand-Sappemeer	12,527	12,146	-381	-0.6	-3.9	22.1
Leek	5,286	5,523	237	0.9	2.4	12.2
Loppersum	1,441	1,691	250	3.3	2.6	15.8
De Marne	2,253	2,334	81	0.7	0.8	16.4
Marum	2,140	1,931	-209	-2.0	-2.2	12.9
Menterwolde	1,454	1,760	306	3.9	3.2	17.6
Pekela	2,533	2,404	-129	-1.0	-1.3	20.4
Reiderland	1,160	1,046	-114	-2.0	-1.2	22.0
Scheemda	1,828	1,931	103	1.1	1.1	17.0
Slochteren	1,985	2,313	328	3.1	3.4	13.4
Stadskanaal	8,218	8,345	127	0.3	1.3	19.1
Veendam	8,700	9,806	1,106	2.4	11.4	19.9
Vlagtwedde	4,291	4,504	213	1.0	2.2	16.4
Winschoten	8,698	8,600	-98	-0.2	-1.0	22.9
Winsum	1,828	2,086	258	2.7	2.7	13.4
Zuidhorn	3,291	3,613	322	1.9	3.3	10.6
Corop area						
Delfzijl and environments	15,053	16,224	1171	1.5	12.1	19.2
East Groningen	38,181	40,036	1,855	1.0	19.2	21.1
Remaining Groningen (incl. the city of Groningen)	124,214	130,871	6,657	1.0	68.7	
Total	177,448	187,131	9,683	1.1	100.0	20.5

Source: RuG, 1992 and 1997; Stelder and Van Dijk, 1997.