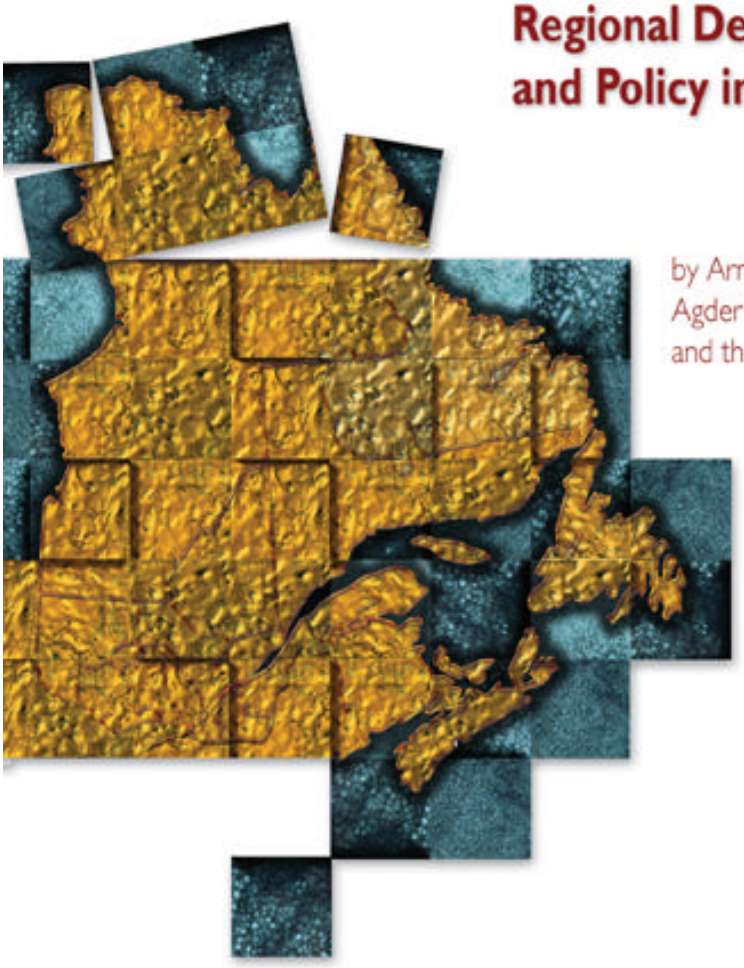
Regions in the Knowledge Economy

Regional Development and Policy in Norway



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REGIONAL DEVELOPMENT AND POLICY IN NORWAY

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Draft

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1. INTRODUCTION

This paper is prepared for a workshop on Peripheral regions to be arranged by INRS-Urbanisation, Montreal in October 2001. The workshop is one part of a larger research programme by INRS that aims to investigate employment growth and development policy in peripheral regions in Canada, with a special focus on Quebec and New Brunswick. The goal of the programme is among other things to identify approaches to regional economic development, which may be able to revitalise the peripheral regions in this part of Canada.

One part of the research programme includes international comparisons in which regional development trends and policies in Northern Europe (Scotland, Norway, Finland and Sweden) are measured up to those in Canada. The part will identify emerging economic development policies in peripheral areas in these countries and evaluate their relevance to the Quebec context. This paper gathers relevant information on regional development and regional policy in Norway to be employed in such an exercise.

In order to achieve comparability and address the need of the Canadian research programme, this paper follows as far as possible the 'framework for expert reports' drawn up by the organisers of the workshop. The report first describes the general regional development and development policies in Norway, and then focuses specifically on development trends and policies in Northern Norway.

2. REGIONAL CLASSIFICATION

This section briefly describes the regional classification employed when analysing regional development in Norway in section 3. The country is divided into 11 types of region (Table 1). This division is increasingly used in studies of regional development in Norway. Thus, it seems to be the most practical regional division in order to bring together results from various studies.

The regional division in Table 1 is organised around a centre – periphery dimension. The starting point is the division of centres (cities, towns) into five levels (column 2 in Table 1). Centres at the highest level have more than 50,000 inhabitants and have

service functions for their part of the country. The next levels have 15,000 – 50,000, 5,000 – 15,000, 2,000 – 5,000 and less than 2,000 inhabitants, respectively.

The next step is to gather all the 435 municipalities in Norway in labour market areas surrounding centres at different levels. Municipalities with 75 minutes or less travelling distance to a highest level centre are thus said to belong to the labour market region adjoining this centre. The remaining municipalities with 60 minutes or less travelling distance from a level two centre belong to a labour market region surrounding such a centre, and so on. With such a procedure all municipalities are grouped in one labour market area.

The third step is to divide all the labour market regions in six size groups according to their number of employees (column 4 in Table 1). The largest labour market areas have more than 200,000 employees, while the smallest ones have less than 2,000 employees.

TABLE 1 - CLASSIFICATION OF NORWAY IN 11 REGION TYPES OF ACCORDING TO CENTRE SIZES, TRAVEL DISTANCES AND NUMBER OF EMPLOYEES

Name of region	Size of centre in region, number of inhabitants	Travel distance to the centre in minutes	Number of employees in the region	Share of population 1996	Number of municipalities
Periphery 1	<2,000	30	<2,000	4.7	104
Periphery 2	<2,000	30	2,000-20,000	2.4	39
Less central 1	2,000-5,000	30	<6,000	5.8	46
Less central 2	2,000-5,000	30	6,000-20,000	1.9	14
Small towns 1	5,000-15,000	45	<6,000	2.8	22
Small towns 2	5,000-15,000	45	6,000-20,000	4.9	24
Cities 1	15,000-50,000	60	<20,000	15.9	84
Cities 2	15,000-50,000	60	20,000-60,000	15.7	42
Cities 3	15,000-50,000	60	60,000-200,000	9.0	17
Large cities 1	>50,000	75	60,000-200,000	16.5	23
Large cities 2	>50,000	90	>200,000	20.5	20

Source: Foss and Selstad (1997).

The result is five main types of regions and 11 types all together. The region 'large cities 2' consists of 20 municipalities at the core of the Oslo region. This region includes approximately one fifth of all inhabitants in Norway. 'Large cities 1' consists of the other four centres with more than 50,000 inhabitants in Norway and the municipalities with 75 minutes or less travelling distance to this centre. The regions named 'Cities' consist of centres with at least 15,000 inhabitants and municipalities within a travelling distance of 60 minutes. The most peripheral region ('periphery 1') consists of 104 municipalities in very small labour market areas.

This paper shall in particular focus on physically remote areas that do not comprise any large city. The region types of 'Small towns', 'Less central' and 'Periphery' will first of all satisfy this criterion.

3. REGIONAL DEVELOPMENT

This section gives an overview of the key regional development trends as concerns population and employment in Norway over the last two decades. The main picture is population decline, out migration and an elderly population in peripheral regions. Peripheral regions also have a 'unfavourable' industrial structure with comparatively many jobs in stagnating and shrinking industries. The labour market nevertheless reveals a rather positive picture as the periphery has a small job growth and a low number of unemployed.

3.1 Population and demography

The long-term regional industrial and population development in Norway over the last 50 years has mainly included regional concentration. Cities and towns have seen the largest population and job growth. The most rapid growth over the last two decades has come in the Oslo and along the Oslo fjord as well as the south western part of Norway (with the 'oil capital' of Stavanger).

Table 2 demonstrates also a considerable redistribution of population among the regional types since 1980. The most peripheral areas have seen a diminishing number of inhabitants. Remote areas containing centres with up to 15,000 inhabitants ('less central' and 'small towns') present either a small population growth or a de-

cline. The city areas have grown, and the most rapid growth is found in the largest cities.

The age distribution of the population both reflects the 'demographic history' of an area as well as may inform about the prospects of further growth or decline. Until the 1970's, the traditional picture was of a higher birth rate and a larger share of children and youth in the peripheral as compared with the central parts of Norway. The relatively high birth rate meant that the peripheral areas more or less maintained their number of inhabitants despite migration to central areas.

TABLE 2 - PER CENT CHANGE IN POPULATION IN DIFFERENT TYPES OF REGIONS, 1980-1996

Type of region	% population change 1980-96
Periphery 1	9.8
Periphery 2	4.3
Less central 1	2.6
Less central 2	1.3
Small towns 1	1.1
Small towns 2	5.7
Cities 1	4.7
Cities 2	10.9
Cities 3	6.0
Large cities 1	13.6
Large cities 2	13.5

Source: Foss and Selstad (1997).

This situation has changed over the last decades. As revealed in Table 3 peripheral areas have a lower share of children (0-5 years) among their population than the national average. The most significance difference between peripheral areas and the national average, however, is the high share of elderly people in the periphery. For example, peripheral areas have 41% more inhabitants in the age group 80+ than the national average. On the other hand, peripheral areas have a low share of people from 20 to 50 years. 'Less central' regions are also over represented with elderly people and under represented with people between 20 and 50 years, to a much smaller

degree than the periphery however. The large cities in particular have a young population and comparatively few elderly people.

The picture in Table 3 reflects both a decreasing birth rate in peripheral and less central parts of Norway as well as several decades of migration from peripheral to central parts of the country[1]. In particular young people have moved to start on a higher education and enter jobs in more central parts of the country.

TABLE 3 - POPULATION BY AGE GROUPS 1999. SELECTED TYPES OF REGIONS. INDEXES; THE NATIONAL AVERAGE = 100

Age group	Periphery 1	Less central 1	Small towns 2	Cities 2	Large cities 1
0-5	90	100	103	100	109
6-15	101	103	105	103	103
16-19	109	106	110	104	99
20-29	88	96	98	101	106
30-39	81	91	91	98	106
40-49	94	97	100	102	99
50-66	107	101	99	101	94
67-79	126	110	103	97	88
80+	141	110	98	87	82

Source: Juvkam (2000).

3.2 Employment and labour market

The changes in the number of inhabitants in Table 2 reflect partly the regional industrial development, i.e. which types of regions experience job growth and decline. An important factor underlying regional industrial growth or decline is the industrial structure in the regions. Thus, Table 4 demonstrates the differences in industrial structure between the 11 regional types. Indexes higher than 100 mean comparatively more employees in an industrial sector and a region compared with the na-

[1] The period since the 1950s has been characterised by net migration from peripheral to central parts of Norway. However, the 1970s were an exception from this picture with a more balanced migration pattern (Hansen and Selstad, 1999).

tional average. Indexes lower than 100 denote comparatively few employees in a region.

TABLE 4 - EMPLOYMENT BY ECONOMIC SECTOR 1998. INDEXES; THE NATIONAL AVERAGE = 100*

Type of region	Primary industry	Secondary industry	Private service	Producer service	Public service	% of total employment
Periphery 1	442	98	62	40	121	3.6
Periphery 2	397	100	72	46	111	2.0
Less central 1	234	117	83	49	109	5.3
Less central 2	228	113	96	55	96	1.7
Small towns 1	203	108	86	51	117	2.4
Small towns 2	160	123	90	55	105	4.5
Cities 1	151	122	88	60	107	13.6
Cities 2	75	104	103	85	105	15.0
Cities 3	49	128	93	84	100	8.4
Large cities 1	44	104	101	109	99	17.7
Large cities 2	16	66	120	166	86	25.9
% of total employment	4,3	23,3	30,4	13,9	28,0	100
Development trends as regards job growth in the 1990's		0	+	+ +	+	

Source: Eikeland and Johansen (2000).

* The indexes in the table reveal the share of employment in every region and sector compared with the share of employment in the relevant sector in Norway. If an index is 100 the share of employment in that sector in the region equals the average share in the country. Indexes larger than 100 mean that a sector is over represented in a region (i.e. has a larger share of the total employment in that region than the average in Norway), while indexes below 100 mean that a sector is underrepresented in a region.

As expected, the peripheral and less central regions are heavily over represented by jobs in the primary industry (agriculture and fishery). The secondary industry (with manufacturing as the largest group) reveals a relatively even distribution among the regions. The exception is first of all the Oslo region ('Large cities 2') with comparatively very few jobs in this industry. Thus, the Oslo region has revealed severe job losses in manufacturing since the 1960's, partly reflecting a redistribution of jobs to

other parts of the country. Some small towns and cities still have a stronghold in manufacturing.

Private service includes commodity trade, hotels and restaurants, transport, and other services to individuals. The sector more or less follows a pattern as revealed by the classical central place theory by Christaller. Peripheral areas, with its small centres, or central places of low order, have few jobs in this sector. Large cities, and in particular the Oslo region, serve a large hinterland for higher order services. Consequently, these regions are over represented by jobs in the private service sector.

Producer service serves mainly other industries. Parts of this sector are known as 'knowledge intensive business service' (KIBS) that is supposed to make a special contribution to competitiveness and innovation in other industries. KIBS is in particular seen as bridging institutions in innovation systems as producers of intermediate inputs, i.e. bridging the knowledge infrastructure of universities, R&D-institutes etc. and firms (Hauknes, 1998). Co-location of producer service firms and other firms may stimulate knowledge flows and collaboration between KIBS and other industrial sectors. Thus, areas that are over represented by producer service *may* have better prospects for industrial development than areas that are under represented, although firms may of course co-operate with more distant firms and organisations. The more informal knowledge flow is, however, stimulated by geographical nearness.

Producer service is mostly found in large cities and in particular in the Oslo region. All other regional types are under represented with jobs in this sector. This concerns in particular the most peripheral areas, which *may* be one important factor hampering economic growth in peripheral parts of Norway.

Public service, on the other hand, is over represented in peripheral areas and under represented in the large cities. This pattern is seen to reflect two interrelated issues. The first is 'diseconomies of scale' in administrating and servicing the population in small municipalities compared to larger ones. As the periphery contains many very small municipalities (Table 1), this type of regions tends to have more public service jobs per inhabitants than the larger municipalities found in more central parts of Norway. Secondly, peripheral municipalities receive grants and transfers to compensate for their lower tax incomes (cf. section 4.2). The financial transfers led to a substantial increase in public service jobs at the local level from the 1970's onwards.

3.3 Job growth and population decline

As revealed in Table 5, all types of regions demonstrated job growth in the 1990's, although the growth is hardly visible in the most peripheral regional type. The job growth was more or less rapid the more central the regions are. The same picture appears when studying the period 1980-1995: the two peripheral and the two less central types of regions had a very low growth (Hansen and Selstad, 1999)[2]. This result is particularly interesting when seen in relation to the regional changes in the number of inhabitants (cf. Table 2). The two peripheral region types reveal a considerable decrease in the number of inhabitants at the same time as the number of jobs increased, albeit at a low pace.

TABLE 5 - DEVELOPMENT IN TOTAL EMPLOYMENT, 1992-1998

Type of region	1992	1995	1998
Periphery 1	100	100	101
Periphery 2	100	103	104
Less central 1	100	101	104
Less central 2	100	103	110
Small towns 1	100	102	104
Small towns 2	100	102	106
Cities 1	100	102	109
Cities 2	100	104	116
Cities 3	100	103	114
Large cities 1	100	103	116
Large cities 2	100	105	122

Source: St.meld. nr. 34 (2000-2001).

The result challenges some popular perceptions associated with peripheral regions in Norway. The periphery is not dominated by an unambiguous job decrease, while all job growth takes place in central areas. Neither does job growth automatically lead to population growth. The population may decrease because of demographic reasons, or because people leave even if there exist vacant jobs. Jobs are not all that matters, the

[2] The job growth was respectively 1% and 0 in peripheral and less central regions.

'qualities' of a place or region also count when people decide to stay or move. The overall aim in regional policy in Norway is to maintain the main features of the regional population pattern (section 4.1). One central strategy is to create attractive jobs in peripheral regions, which should be highly relevant. However, there seems to be no way out of also considering the quality of peripheral regions as places to live to insure that people go into the jobs.

The relatively positive job growth (as compared with population changes) in peripheral regions is also demonstrated in Table 6. The occupation frequencies are at the national average in nearly all region types[3]. However, the two other indicators in Table 6 point to problems in some regional labour markets. The unemployment figures vary markedly. The most peripheral region has a somewhat high unemployment rate. However, the number of unemployed is not particularly high in the periphery as regards to the four most peripheral regions jointly. On the other hand, peripheral regions have a relatively high number of permanently disabled[4]. This may reflect both physically tough jobs in peripheral regions as well as mechanisms that tend to shut some groups out of the labour market.

Table 6 also points to regional 'pockets' of labour market problems in particular in some small towns and cities. This probably refers to situations of industrial restructuring as traditional industries with 'corner-stone' companies decline.

The total income per taxpayer has a markedly centre – periphery pattern (Table 7). As the occupation frequencies are more or less the same in all regions, the pattern mainly reflects the regional industrial and employment structure. Peripheral regions have more jobs in relatively low paid industries and occupations than central regions. The share of persons with a higher education is also much higher in central areas (Eikeland and Johansen, 2000), which is an important explanation of the picture revealed in Table 7.

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[3] Occupation rates are defined as the per cent of inhabitants in the age group 16-66 years that have a paid job.

[4] Permanently disabled are persons that are physically or mentally unfit (as decided by doctors and the health insurance office) to have a job. Persons may be declared as permanently disabled after one year of sick note. Persons then either go back to their job, enter a rehabilitation program, or are seen as permanently disabled.

TABLE 6 - FREQUENCIES OF OCCUPATION, UNEMPLOYMENT AND PERMANENTLY DISABLED. 1998. INDEXES; NATIONAL AVERAGE = 100

Type of region	Occupation rate	Unemployment rate	Frequencies of permanently disabled
Periphery 1	99	117	123
Periphery 2	102	91	111
Less central 1	101	103	106
Less central 2	101	84	110
Small towns 1	98	129	115
Small towns 2	99	108	108
Cities 1	100	89	111
Cities 2	100	97	106
Cities 3	97	125	129
Large cities 1	101	110	84
Large cities 2	100	86	76

Source: Eikeland and Johansen (2000).

TABLE 7 - TOTAL INCOME PER TAXPAYER. INDEXES; NATIONAL AVERAGE = 100

Type of region	1985	1998
Periphery 1	77	78
Periphery 2	80	81
Less central 1	86	85
Less central 2	86	87
Small towns 1	88	85
Small towns 2	89	87
Cities 1	91	89
Cities 2	98	96
Cities 3	98	95
Large cities 1	110	107
Large cities 2	120	126

Source: Eikeland and Johansen (2000).

4. REGIONAL POLICY

This section describes main features of regional development policies in Norway, both the 'broad' policy and the 'narrow' policy.

4.1 Description of the principal regional development policies

The main goals of the overall regional policy in Norway over the last twenty years or so have been to (i) maintain the main features of the regional population pattern, and (ii) to obtain equal living conditions in the whole country. These goals were confirmed in the recent (spring 2001) White Paper concerning peripheral and regional policy (St.meld. nr. 34 (2000-2001)), despite the long term regional imbalances in population development (as revealed in Table 2).

The chief problem in attaining the goals is the ongoing and increasing concentration of people and industry in Oslo and surrounding areas along the Oslo fjord. According to the White Paper this challenge demands the strengthening of labour market areas outside of the largest cities. Thus, some concentration of population and industry to small and large centres throughout the country has to be accepted. Larger regional labour markets are seen as the realistic geographic level to maintain the main features of the population pattern. Seen in relation to the regional classification in Figure 2.1, the goal is not to maintain the number of inhabitants in all areas belonging to the two types of peripheral regions. Rather, population outside the largest cities may be increasingly concentrated in and around small and large regional centres; a strategy that was denotes as 'decentralised concentration' in the 1960's and 70's (Rasmussen, 1979). Larger labour market areas are seen to play a role in counteracting migration from peripheral areas to the largest cities.

However, the White Paper claims that such a strategy necessitates a special focus on (i) the situation in the smaller communities outside the larger regional labour markets, which have a big population decrease and a long distance to centres, as well as (ii) on areas with special challenges like the most northern part of Norway, and (iii) areas in need of heavy industrial restructuring. Regardless of these reservations, it is important that the White paper points to larger regional labour markets sur-

rounding centres of some size as the geographical level where the number of inhabitant should be stabilised.

To achieve the main goal of preserving the population pattern, the White Paper operates with three overall tools that overlap to some extent.

Firstly, the task is to develop robust societies, i.e. societies that are able to restructure their industry and service, competence base, labour market etc. Robust societies are an important goal of the regional policy, but also a central means. Robust societies are seen as a prerequisite for industrial innovation and growth, and not just a result of the industrial development. Thus, the attractiveness of an area, i.e. how many and what kind of people want to live in and move to an area, is seen to be increasingly important also for the industrial development of the area. This reflects the view that firms' capital ever more consists of the competence of their workforce. Thus, an attractive area holding a highly competent workforce will also be able to provide firms with an important production factor, and the area may be an attractive place to locate for outside firms. Thus, robust societies may also be robust as regards to the long-term industrial development.

A second task is to actively stimulate innovation and entrepreneurship in order to develop industry and business in the whole of Norway. This task is seen to demand strong regional innovation systems, i.e. networks of collaborating firms that may also be located close to, or have links to, universities and university colleges. This view reflects a long-term development trend in regional policy away from supporting individual firms to support systems of firms, clusters of firms, or firms' value chain. The development trend also includes a change from concentration on 'hard' investments in estates, buildings and machinery towards more focus on 'soft' investments in education and training, product and market development. The same development trend may be observed in industrial policy, technology policy and R&D policy in Norway, as in many other countries (Arbo, 2000). The focus on stimulating strong regional innovation systems highlights the importance of larger regions also in stimulating industrial development. Thus, the development of robust societies includes efforts to improve both the industrial milieu and the living conditions of people in an area.

A third task in order to achieve the main goal in regional policy is a 'broad' mobilisation of important actors. This effort includes a strategy to decentralise and delegate responsibility and authority from the state level to counties and to the regional of-

fices of SND (the States Industrial and Regional Development Fund), which are the main actor in regional policy in Norway. The task also includes to co-ordinate the 'narrow' and 'broad' regional policy (cf. section 4.2).

4.2 Evaluation of impact and cost of regional policy

The overall regional policy is often divided into a 'narrow' and a 'broad' type of policy. The 'narrow' policy is the 'real' regional policy, i.e. the policy specifically aimed to influence the regional development. The 'broad' policy is all the other types of policy that have some regional consequences. The consequences relate to the fact that policy tools level out and compensate between groups of people and geographical areas, or the policy tools contribute in industrial development, building of infrastructure, bettering living conditions, raising competence in the workforce, etc. in the geographical areas where the tools are used.

The Ministry of Local Affairs and Regional Development has made some efforts to gain an overview of the amount of money put into different types of regional policy, as well as their effects. Table 8 gives the preliminary results of this kind of exercise.

Nearly 90% of the economic efforts of relevance for regional development is categorised as 'broad' regional policy. Thus, this type of national policy is much larger and may have much bigger effects on the regional development than the 'real' regional policy.

The 'broad' regional policy includes a very diverse group of measures. However, 50 out of the 100 milliard NOK[5] (11 billion US$) used in the 'broad' regional policy are categorised as 'economic policy', and more precisely as grants to municipalities. The grants to municipalities in Northern Norway and other peripheral areas shall, amongst other things, compensate for lower tax incomes in scarcely populated municipalities. These grants are part of a general welfare and social policy in Norway, which probably has large regional consequences. The policy led to a considerable expansion in public service at the local level from the 1970's onwards. The expansion brought about a more equal geographic distribution of public services, and contributed to the over representation of public service jobs in peripheral areas (as revealed

[5] NOK is Norwegian kroner. 1 US Dollar amounts to 9 NOK.

in Table 4). The measure increased in particular the number of jobs held by women in the whole of Norway.

The national industrial policy with regional consequences includes first and foremost agricultural policy. This policy has as one of its main aim to contribute in maintaining the population pattern. Agriculture is the Norwegian industry most explicitly linked to peripheral areas (Table 4); thus, the peripheral regions receive more than their share (as compared with their share of the national population) of the subsidy to the agricultural sector.

The education and research policy with regional consequences mainly consists of expenditures for higher education (15 out of 18 milliard NOK (2 billion US$)). Studies indicate considerable effects as regards to industrial and population growth from universities and colleges. These institutions contribute in the development of new firms and jobs (cf. section 5 as regards to effects from the University of Tromsø). The institutions also contribute in recruiting young people to higher education, and in recruiting migrants with higher degrees to the regions where the universities or colleges are located. Universities and colleges are located in large cities, but also in some smaller and larger towns in Norway. Thus, universities and colleges contribute to the aim of creating robust societies, however, they do not contribute to population growth in the most peripheral parts of the country. Rather the contrary as young people taking a higher degree seldom return to their home town[6].

The 'narrow' regional policy is also first of all categorised as 'economic policy'. This policy more precisely consists of (i) the value of reduced employers' duty in peripheral regions (ca. 6,8 milliard NOK (0,7 billion US$))[7], reduced taxes and duties in Northern Norway (1,6 milliard NOK (175 million US$)), and grants to Northern Norway and other peripheral municipalities (2 milliard NOK (220 million US$).

The effects of the reduced tax and duties in the most Northern part of Norway (the county of Finnmark and the northern part of the county of Troms) have been evaluated (referred in St.meld. nr. 34 (2000-2001)). The evaluation concluded that the ef-

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[6] The infrastructure policy mostly consists of investments in roads. Little knowledge of the regional effects of these investments seems to exist.

[7] A geographic differentiated employers' tax was introduced in Norway in 1975. The country is divided into five areas. The employers' tax varies from 14,1% in central areas to 0% in the most peripheral areas, i.e. in Finnmark and Nord-Troms.

forts had a positive effect on the population pattern and job growth. The job growth (new jobs or jobs maintained because of the policy instruments) was estimated to be approximately 3.800 employees (or 8% of all jobs in the area)[8]. Two thousand two hundred jobs were seen to result from reduction in employers' duty. The cost per extra job was estimated to 275,000NOK (30,000 US$). This is more than double the average cost for each new job created by measures targeting projects in individual firms (cf. section 4.3). Reduced personal taxes also resulted in job growth, however, this kind of tool was seen as rather expensive compared to its effects.

TABLE 8 - ECONOMIC EFFORT OF IMPORTANCE FOR THE REGIONAL DEVELOPMENT ACCORDING TO THE NORWEGIAN NATIONAL BUDGET 2000 (IN 1000,000 NOK)

Type of policy	'Narrow' regional policy: Tools specifically targeting the regional development	'Broad' regional policy: National tools of importance for the regional development
Economic policy	10,558	49,192
Industrial policy	1,074	13,068
Infrastructure policy	100	12,889
Education and research	128	17,917
Health and care	0	1,569
Living conditions, environment protection and public services	128	5,229
Regional policy tools managed by the Ministry of Local Affairs and Regional Development	1,814	0
Total	13,801	99,864

Source: St.meld. nr. 34 (2000-2001).

The Ministry of Local Affairs and Regional Development disposed 1.8 milliard NOK (200 million US$) in 2000, which amounts to 13% of the funds used in the 'narrow' regional policy and only 1.5% of the 'total' regional policy. About half of the funds from the Ministry are used to develop individual firms in peripheral regions; the other half is used to stimulate industrial and social development more generally.

[8] The final paper will comment on the methodology used to assess the impact, which demands a closer look at the background material of the White Paper.

4.3 Description and evaluation of the 'narrow' regional policy

SND(the State's Industrial and Regional Development Fund) is by far the most important actor in the 'narrow' regional policy in Norway. The assessment of effects and cost of this policy therefore draws on recent evaluations of SND's role as an actor in the regional development policy in Norway.

Established in 1993 through a merger of four agencies, SND was part of a wider effort in the Norwegian state to simplify the by then rather complex structure of the business support infrastructure, and to integrate regional and national policy for economic development. The 'broad' regional policy is meant to compensate for permanent disadvantages in peripheral regions. The instruments used by SND shall mainly promote the development of a more profitable, innovative and varied industry in peripheral regions. Thus, one of the main aims of SND is to further lasting and profitable employment in regions characterised by particular labour market problems or poorly developed industry and trade. From 1997 SND has decentralised its activities by setting up offices in each county. In this way SND has made significant progress towards becoming the needed 'first stop shop' for companies seeking support in development and growth.

On average, SND spent 3,8 milliard NOK (420 million US$) each year in the 1994-1999 period. One third was used for grants, the rest on loans and guarantees. Roughly one half of the amount was spent in the peripheral regions, and this share increased throughout the period.

Overall, evaluations give SND 'good marks' for its efforts in achieving its regional development goal (Alsos et al., 2000; Hatling et al., 2000). The scope of the supported peripheral regions in Norway is set down by the parliament. SND has successfully followed these guidelines. Grants are therefore more commonly used in the supported regions than outside them. Grants from SND help start projects not otherwise realised, at least not to the same degree and as rapidly achieved than with the SND grants. The supported projects are also generally of importance for the firms. Many client firms claim that grants from SND lead to 'improved competitiveness', increased efficiency and reduced costs', 'strengthened ability to readjust', and 'increased focus on product and market development'. Many firms also increase their ability to recruit highly qualified workers. Generally speaking, SND is seen to compensate for disad-

vantages attached to peripheral location in carrying out projects, at least when it comes to 'hard' support (grants, loans, guarantees).

The direct effect of SND's grants in terms of new jobs or 'saved jobs' (that otherwise would have been closed down) is estimated to be 8,100 jobs in 1995 and 5,700 jobs in 1996 (Alsos et al., 2000). These results emerge from analysing firms 3-4 years after they received their support from SND[9]. The cost varies between 140,000 and 155,000 NOK (15,500 – 17,000 US$) for each job. The support also has some spreading economic effects, for example growth in local subcontractors and service firms. These effects are estimated to 40% of the direct job growth, resulting in an overall effect amounting to an average of 9,700 jobs each year. Every new job then costs 110,000 NOK (12,000 US$)[10].

SND is seen to be mainly reactive in handling proposals from firms. Hatling et al. (2000) point to a potential gain, in particular in peripheral regions, for a more proactive working method. This means that SND could 'search for' good innovation projects in firms, coach firms in carrying out their projects, and act as a brokers towards different external actors. Support can encompass both 'hard' investments and 'soft' ones, which increase capabilities and alter company strategy and behaviour. While the great majority of SND's customers are satisfied with the service and support they receive, their expectations are also limited. Few firms use the 'soft' service (as supervision) from SND. Many companies want and need a proactive discussion-partner and guide to the business support infrastructure, but do not yet see SND in this role. Their expectations are determined by SND's image as a provider of grants and loans, rather than by its current wider offering. Results indicate that a combination of 'hard' and 'soft' investments in firms is most effective. 'Soft' actions are important potential contributors to the performance and sustainability of industry, and this is the case in particular in peripheral regions with its comparatively meagre industrial

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9 The effects are assessed by use of three criteria: (i) the firms' judgment of the 'additionality' of the supported project, i.e. to which extent the project had been set off without support from SND, (ii) the number of new jobs or 'saved' jobs in the firms 3-4 years after the start of the project, and (iii) the firms' assessment of the contribution of the project to the new or saved jobs. Thus, a positive effect demands both that the support from SND contributed in realising the project, that the firm achieved a job growth (or saved jobs) within a 3-4 year period, and that the project contributed in the job growth.

10 The spreading effects are assessed by use of figures of gross deliveries between economic sectors in each county. Effects occur when supported firms buy goods and services from other local firms, and also when employees buy goods and services locally.

milieu, lack of knowledge organisations and at times long distance to important customers and subcontractors. Generally, the total effort from SND is seen to be too modest compared with the problems facing the most peripheral areas (Alsos et al., 2000).

In its effort to develop a more proactive working method there seem to be important lessons to learn from the work SND does on local restructuring projects in communities facing important economic challenges, such as the decline of 'corner-stone' companies. SND has a dedicated group of people working with this kind of projects in which financial grants are coupled with SND taking a role as coach and initiator. A key element, however, is to encourage the development of the region's autonomous development capabilities. Important lessons from this work is the need to stimulate local mobilisation and changes in attitude, encourage co-operation among local actors, develop local organisation and knowledge to carry on the effort for industrial restructuring after SND withdraws, and focus on the local society and system of firms rather than just individual firms. One result from the evaluations is that this restructuring group's proactive style of working should be built more widely into SND's regional development work, to further increase its effectiveness as a change agent at the 'systems' level' within regions.

5. DEVELOPMENT AND POLICY IN NORTHERN NORWAY

This section analyses aspects of the development in Northern Norway, and in particular the rather successful development of Tromsø, the largest town in this part of the country. The section also describes and assesses a very interesting policy instrument, the Innovation and New Technology Programme in Northern Norway (the NT-programme), and ends with referring three different scenarios for Northern Norway.

5.1 Assessing the growth in Tromsø

Northern Norway grew faster in the number of inhabitants than the average for Norway until around 1960. From then on Northern Norway has decreased its share of the country's population (Table 9). From 1980 to 2000 the number of inhabitants in Northern Norway also decreased by 4,000, while the population in Norway grew by 400,000.

TABLE 9 - PER CENT OF THE POPULATION IN NORWAY LIVING IN NORTHERN NORWAY

	1900	1930	1960	1970	1980	1990	2000
Northern Norway's share of the total population	11.6	12.0	12.2	11.8	11.5	10.9	10.4

Source: St.meld. 34 (2000-2001) and Statistics Norway.

One contributing factor to the weak population development in Northern Norway over the last two decades is low impact from the Norwegian oil activity in this part of the county. The petroleum sector in Norway employed nearly 74,000 persons in 2000 (Arbeidsdirektoratet, 2000)[11]. Only 400 oil related jobs are found in Northern Norway. Nearly three quarters of all jobs in the petroleum sector in Norway are found in the two south western counties of Rogaland and Hordaland.

The development in Tromsø is, however, markedly different from the overall development in Northern Norway. Tromsø increased its number of inhabitants by more then 20,000 from 1970 to 2000 (Table 10)[12]. Tromsø also grew faster than the Norwegian average these years.

TABLE 10 - NUMBER OF INHABITANTS IN TROMSØ 1970-2000

	1970	1980	1990	2000
Tromsø	38,791	46,404	51,218	59,154
Northern Norway	456,121	468,490	460,274	464,328
Tromsø in % of Northern Norway	8.5	9.9	11.1	12.7
Tromsø in % Norway	1.0	1.1	1.2	1.3

Source: Statistics Norway.

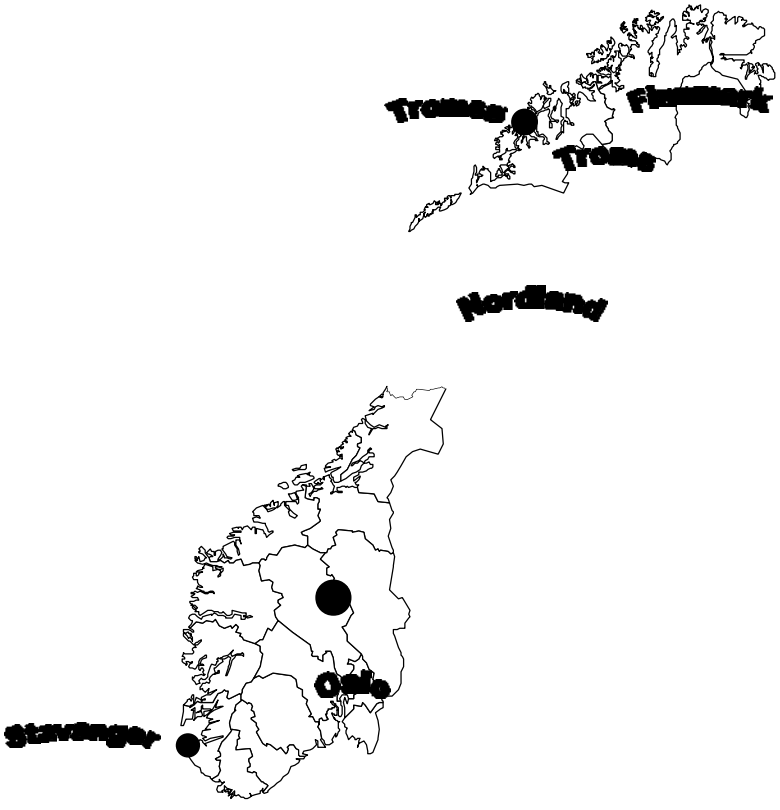
[11] This figure includes employees in all firms in Norway with activities related to the petroleum sector. The sector comprises searching, development and maintenance of oil fields, production and transportation of oil and gas ashore, which are denoted as primary activities. The sector also includes firms that deliver goods and services directly to the primary activity and specially adapted to these activities, as well as the construction and operation of refineries. The largest number of employees is found in manufacturing and construction, in oil companies and engineering companies.

[12] The present borders around Tromsø were created in 1964 by the fusion of (parts of) four former municipalities.

What are the reasons for the fast population growth in Tromsø? The growth of higher education and research is often put forward as the most obvious explanation. Tromsø is by far the most important centre of education and research in Northern Norway. The growth started with the new university in 1972 with 420 students. Today the University in Tromsø has 6,500 students and 1,500 employees, of which half of them are in scientific positions (Arbo, 1999). The Tromsø hospital with its 3,500 employees serves the whole of Northern Norway, and the building of a new hospital was one precondition for establishing the university. Tromsø also has a college with 2,200 students and nearly 300 employees, as well as a number of research institutions with around 500 employees put together. These institutions have mainly grown out of the activities at the university.

MAP 1 - THE LOCATION OF NORTHERN NORWAY AND SOME KEY CITIES

The counties of Finnmark, Nordland and Troms constitute Northern Norway



Within a few decades a rather large education and research activity has grown up in Tromsø. The scientific activity is varied. However, four main fields exist: medicine; research in fishery and aquaculture; data and telecommunication, space and atmospheric research; and research on the history, society, language and culture in Northern Norway and the Lapp area. Arbo (1999) empirically analyses two main types of effects originating from the large education and research activity in Tromsø.

Firstly, the activity has resulted in a large number of new jobs and inhabitants. Around 10% of all employees in Tromsø work at the university and in the research institutions. Employees and students at the university amount to 17% of the number of inhabitants in Tromsø. These people generate further local industrial activity by their purchasing power. To some extent, the university and college mobilise people in Tromsø and Northern Norway to take a higher degree, and the institutions attracts students, higher educated personnel and in some cases also firms to Tromsø.

Secondly, the education and research milieu in Tromsø has direct effects on the activity in other parts of the industry. Knowledge flows from the scientific institutions in Tromsø to local firms and firms in other parts of Northern Norway in different ways. People with higher education take up positions in firms, and information and knowledge are spread to industry, in collaborative projects for example.

These effects are difficult to measure. Arbo (1999) has however found nearly 50 spin-offs from the university and the research institutions in Tromsø since the beginning of the 1980's. Two thirds of these firms still exist; adding up to around 270 employees. The spin-offs are mainly high-tech, remaining in close contact with the research milieu in Tromsø and engaging in new innovation projects. The spin-offs have mostly located themselves in Tromsø or nearby Tromsø. Thus, the growth from the education and research institution in Tromsø has mainly benefited Tromsø itself and very nearby area.

5.2 The NT-programme: a good practice policy tool

An interesting policy instrument in Northern Norway is the Innovation and New Technology Programme in Northern Norway (the NT programme). In a European comparative evaluation of innovation policy instruments targeting SMEs this pro-

gramme is seen to have several good practice elements to offer to other instruments (Nauwelaers and Wintjes, 2000).

The NT programme started in 1987 and is a regionally based programme. The Ministry of Local Affairs and Regional Development finances the programme with 20-25 million NOK (2,2 – 2,8 million US$) each year. The programme is administratively placed under the State's Industrial and Regional Development Fund; however, it has its own board and is run by an independent secretariat in Tromsø. The secretariat has been very important in developing the programme since its start.

Northern Norway is characterised by a comparatively traditional industry, with a low level of R&D. In the mid 1980's a committee was set down to propose a strategy to develop Northern Norwegian industry, which focused strongly on growth through R&D and innovation. The NT programme was the main initiative that was implemented from the plan of the committee. Thus, the main argument was to raise the R&D-intensity and innovation activity in Northern Norwegian firms as a way to develop the region.

The aim of NT is to provide financial support to development projects in firms in the region, to strengthen the co-operation between so-called 'centres of expertise' and the firms, and to strengthen the co-operation between firms and within firms. The main focus of the programme is to provide funds for innovation projects in firms. The philosophy of NT, however, is to provide all-round proactive support for innovation. That is why the programme has built much 'soft' support and advice around their financial support. The programme secretariat is very active in recruiting firms to the programme, in closely following up firms and projects, as well as having long-term connections with their client firms (Isaksen and Remøe, 2000). The approach is tailor-made and intends to meet the specific needs of firms.

The target group of NT is R&D intensive firms or the 'best' firms in manufacturing and consulting in Northern Norway. The programme foresees support for the development of products, production processes, marketing and collaborative links between firms and R&D institutions. It has no 'infrastructure aim', but concentrates more on the relations between firms and institutions. Thus, the programme has initiated a system of 'technology advisory contracts', mainly involving R&D institutes in Northern Norway.

Over the last years, the NT programme has financed around 50 firm projects each year. This support counts for up to 70% of total NT funds. Typical outcomes of these projects are the introduction of new products or processes on the market by the supported firms. NT staff often acts as brokers to couple the firms with research institutions and other firms in accomplishing the project. The programme seems to be successful in hitting its target group of quite resourceful firms in Northern Norway, increase the innovation activity and capability in these firms, which result in new innovations on the market (Remøe, 1999). This is achieved with a comparatively high cost per project. Twenty per cent of the budget is used for administrative purposes, a percentage that has increased during the history of the programme.

5.3 Outlook for Northern Norway

How will the future development be in Northern Norway? A research team from this part of the country recently discussed this question by preparing three different scenarios for Northern Norway up to year 2020 (Arbo et al., 2000). The scenarios reveal that the future development in this part of the country depends on larger development trends.

The first scenario, which is most like a trend scenario, departs from a further liberalisation and privatisation of the economy. The Norwegian state makes an effort to support the large firms in order to make them more capable to meet a tougher international competition. Efforts focus on stimulating value creation and knowledge based growth in the most central parts of Norway. Northern Norway is hit hardest by these development trends. Politicians in Northern Norway use their traditional defence strategy, which is to focus barely on receiving more grants from the state. Such a strategy, however, mainly blocks endogenous development possibilities. Northern Norway comes to be dominated by branch plants, and, as in the rest of Norway, small firms become much less important. The result is a blocked development, job decrease and fewer inhabitants.

The second scenario focuses on decentralisation of power and resources from the state to the regional level. Northern Norway then gets a much larger room for manoeuvre. Politicians in this part of the country take the opportunity and collectively create a regional development policy. The policy consists of creating strong Northern Norwegian firms, and cooperating with higher education and research organisations

to stimulate new knowledge based firms. The regional embeddedness means that the development of industry and trade and the society goes hand in hand. This scenario centres on Northern Norway as a region with initiative, which is able to develop further its human and material resources, partly by strengthening the regional knowledge and innovation system. The result is a growth in the number of jobs and inhabitants.

The third scenario focuses on Northern Norway as an area for people looking for alternative ways of living. The region attracts new groups of people who visit Northern Norway or stay there. The Lap society and culture form an ethnic mobilisation that stimulates experimentation in ways of living. People with resources and considerable contacts are important in developing new firms and jobs in Northern Norway. Art and culture become the most important industrial growth sectors. The development was also stimulated by grants directed to individual persons living in the North, to try to maintain the population pattern. This scenario focuses on Northern Norway as an exotic area to live for various people, which also stimulates job growth in creative small firms. The result is some population growth.

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