

## 2. Economic and social conditions of Arctic regions

G rard Duhaime and Andr e Caron

In 2007, *Far Eastern Affairs* published an article about prospective oil and gas development in the Russian North, stating that “the new hydrocarbon-producing complexes will speed up growth in living standards and quality of life in East Siberia”.<sup>1</sup> On the other hand, it was expected that the huge James Bay hydroelectric project in Northern Quebec would lead to “a certain decline in the standard of living of native people relative to that of the country, despite the financial benefits of industrial development”.<sup>2</sup>

Who are right - those who predict prosperity and welfare resulting from industrial development or those who recommend development of small-scale local economies giving benefits for the people directly involved? This chapter approaches that question by looking into the relationships between the economic conditions of the Arctic regions and human development.

Table 2.1. Basic economic and social conditions, Arctic regions, 2006

Regions	Total population	Aboriginals Share of aboriginal peoples in the total population	Females Share of women in the total population	Youth Share of children aged 0-14 years in the total population	Life expectancy Years	Infant mortality Per thousand live births	Tertiary education Share of tertiary education graduates in the total population	Personal disposable income USD-PPP	Dependency ratio	Composite index <sup>1</sup>
Alaska	670 053	13.1	48.5	21.5	76.7	6.7	24.7	32 811	0.6	9
Labrador	26 364	37.8	49.3	20.6	76.1	4.4	9.4	19 044	1.3	6
NWT	41 465	49.8	48.8	23.9	79.1	4.2	19.4	30 339	0.7	8
Nunavik	10 815	89.2	49.1	36.3	63.5	17.3	9.6	19 532	1.9	4
Nunavut	29 475	84.5	48.7	33.9	70.4	10.0	11.9	24 495	1.6	5
Yukon	30 375	25.0	49.7	18.8	76.4	11.0	23.4	29 761	1.0	8
Faroe Islands	48 183	0.0	48.1	22.8	78.9	4.4	23.0	15 275	0.7	7
Lapland	184 935	0.8	49.9	16.3	78.6	5.9	20.7	14 000	1.5	7
Oulu	465 018		49.7	19.8	79.0	4.2	22.7	13 847	1.4	7
Greenland	56 901	88.6	47.0	24.8	68.3	15.4	n.d.	15 237	0.9	5
Iceland	299 891	0.0	49.6	21.8	81.2	1.4	23.5	17 957	0.8	8
Finnmark	72 937	9.2	49.2	20.5	77.6	4.3	21.4	18 687	1.1	7
Nordland	236 257		50.0	19.3	79.4	3.3	19.8	18 700	1.2	7
Troms	153 585		49.6	19.7	79.0	3.7	25.1	18 550	1.0	8
Norrbottnen	251 886	3.6	49.3	15.6	79.5	5.1	13.6	14 721	1.3	6
V�sterbotten	257 581		50.0	16.1	80.4	3.1	19.4	14 139	1.2	7
Arkhangelsk	1 280 200	0.5	53.3	16.3	64.8	10.2	12.1	7 465	1.1	3
Chukchi	50 500	20.9	47.9	21.7	58.9	23.2	14.6	19 267	0.3	5
Evenk	17 000	19.3	50.0	24.2	59.1	21.3	11.5	9 765	0.5	4
Karelia	693 100	0.0	54.2	15.5	63.8	7.6	13.7	6 734	1.0	3
Khanty-Mansii	1 488 300	1.4	50.8	19.9	68.8	7.5	15.9	16 851	0.7	6
Komi	974 600	1.0	52.5	17.5	64.2	7.0	12.2	10 710	1.1	4
Koryak	22 600	34.2	50.0	22.0	56.0	33.0	9.9	12 389	0.6	3
Magadan	168 500	8.7	51.6	17.0	63.4	14.2	15.4	10 682	0.8	4
Murmansk	857 000	0.2	51.6	15.7	65.2	10.3	15.5	9 853	0.9	5
Nenets	42 000	14.3	51.2	22.3	62.2	15.2	9.9	..	0.5	4
Sakha	950 000	2.4	51.5	23.6	65.6	10.6	14.6	10 733	1.0	5
Taimyr	38 400	19.0	51.8	22.9	63.8	7.4	13.3	11 641	0.7	5
Yamal-Nenets	532 600	5.9	50.7	21.3	68.9	13.0	16.8	20 447	0.5	6

<sup>1</sup> This index is based on the 6 indicators: female proportion, life expectancy, infant mortality, tertiary education rate, personal disposable income and dependency rate.



A Nenets man signs a paper to get a ballot as he votes at a mobile polling station in Tundra, near the river Niarovecha, located in the Yamal peninsula above the polar circle, northeast of Moscow. REUTERS/Vasily Fedosenko/Scanpix

Standard economic theory suggests that economic growth trickles down in society, inevitably increasing general well-being and living conditions. Amartya Sen argues that, in practice, this is not necessarily the case. He describes development “as a process of expanding the real freedoms that people enjoy. Development requires the removal of major sources of unfreedom: poverty as well as tyranny, poor economic opportunities as well as systematic social deprivation, neglect of public facilities as well as intolerance or overactivity of repressive states”<sup>3</sup>.

Denial of liberties may include lack of access to health services and education, inadequate housing, and economic poverty. In the Arctic regions, the main question is to what extent human development has improved in the wake of large industrial development in resource extraction and energy production. Human development may be incongruous with economic growth and may even be hindered by growth, when growth combines with forces seeking to impose their exclusive interests.<sup>4</sup> However, human development may also be fostered by growth. The economy may support material conditions that are favourable to fulfillment and expression of individual abilities, and to find meaning in one’s existence.

The economic situation cannot be understood properly without considering its relationships with the society which surrounds it.<sup>5</sup> In this context it is necessary to account for the relationships of power – taking into account the option that the economy ultimately may con-

tribute to human development controlled by citizens themselves, via democratic public authorities.

While the present report *The Economy of the North 2008* puts large emphasis on the role of the oil industry and other extractive sectors, this chapter expands the scope by depicting the basic social conditions and the social issues raised by large-scale resource development. Does growth in this area of the economy favour human development, the capacity of indigenous and other local Arctic residents to control their fate, to allow the development of their full potential – while huge pipelines span the wilderness where they reside? What are the undesirable social consequences of petroleum and mining activities?

Several socio-economic indicators are now available, making it possible to depict Arctic livelihood with a broader palette. Following the major analyses carried out within the scope of the *Arctic Human Development Report*, the many studies on the social situation and living conditions of residents of the Arctic and native peoples, the launch of the socio-economic database, ArcticStat, and finally, the publication of the first report on *The Economy of the North*, it is now possible to examine the Arctic situation from a socio-economic viewpoint. This chapter focuses on fundamental dimensions of economic and human development, as measured by a set of socio-economic indices. The socio-economic data are interpreted in terms of social structures and power relations between business, governments, and Arctic citizens, in the various national and regional con-

### Box 2.1: ArcticStat Circumpolar Database

As a result of multiple sources with different definitions, methods and access, finding the relevant socioeconomic data for the Arctic regions has long been a highly time-consuming procedure.

ArcticStat was created in order to overcome these difficulties and to increase the research capacity by taking advantage of already existing data. ArcticStat aims to facilitate research by organizing socioeconomic data covering 30 Arctic regions belonging to 8 countries: Alaska, Northern Canada, Greenland and Faroe Islands, Iceland, Northern Norway, Northern Sweden, Northern Finland and the Northern Russian Federation.

The data made available by ArcticStat cover population, language, health, education, migration, economy, employment and other social issues. The computer database is a free-access web-based databank unique as a socioeconomic datasource devoted to the Arctic circumpolar regions.

A user-friendly portal links users directly with the relevant tables on web sites where they originate. When such procedure is not possible, users have access to tables compiled and stored in the ArcticStat-database itself.

ArcticStat [www.arcticstat.org](http://www.arcticstat.org), was on line on October 1st 2007. It gives access to more than 5 300 tables through 9 indicators and some 75 sub-indicators.

ArcticStat was created by the Canada Research Chair on Comparative Aboriginal Condition of Université Laval, Canada, as a major Canadian contribution to the International Polar Year.

texts of the Arctic, with particular emphasis on social policies and political development in regions with a majority of indigenous people.

### Economic and human development: Method of analysis

Our analysis is based on selected indicators of the economic, demographic, social, educational and health situation. The data were selected for their capacity to depict human development under the social conditions of Arctic citizens. Data for household disposable income are used in our analysis. For the purpose of measuring consumption possibilities, household disposable income is generally a more relevant indicator than the gross domestic product (GDP).

The analysis covers the circumpolar Arctic, that is, Alaska (US), Yukon, the Northwest Territories, Nunavut, Nunavik and Labrador (Canada), the regions of Lapland and Oulu (Finland), Greenland and the Faroe Islands, Iceland, the regions of Finnmark, Troms and Nordland (Norway), the regions of Norrbotten and Västerbotten (Sweden), and the regions of Arkhangelsk, Chukchi, Evenk, Karelia, Khanty-Mansii, Komi, Koryak, Magadan, Murmansk, Nenets, Sakha, Taimyr, Yamal-Nenets (Russian Federation). Data for 2006 from ArcticStat (see Box 2.1) were produced by the national statistical agencies of the countries concerned.



Greenland/Colorbox

These data were complemented by an inventory of health indicators and a preliminary version of Chapter 3 of this report.<sup>6</sup>

The most recent year available was used when 2006 data were not available. Some data series were not covered by all regions, and some data sources had certain major conceptual divergences. When data were not available on a national scale, they were estimated. Missing data for certain regions were estimated by the corresponding value for the closest comparable region. These few estimations require that the results are interpreted with some caution.

The main focus is on six socio-economic indicators: (1) Female proportion, (2) Life expectancy, (3) Infant mortality, (4) Tertiary education, (5) Disposable income, and (6) Dependency ratio. The dependency ratio is defined as the proportion of the population unemployed or outside the labour force. Our set of indicators is larger than those included in the Human Development Index (HDI) used by the United Nations.

These six indicators are presented in six-pointed radar-shaped diagrams for the Arctic regions in figures 2.1 to 2.8. In these graphs, the more of the total area that is covered, the more favourable are the indicators in terms of human development. The six indicators were transformed to indices on a scale from 1 to 10, where 1 represents the least favourable and 10 represents the most favourable condition for human development. For example, the highest disposable income was attributed the relative value of 10, and the lowest was attributed the relative value of 1. In the case of the female proportion, the value closest to the universal value was attributed the relative value of 10.

### Economic and human development: Main results

Table 2.1 gives an overview of the absolute values of the set of socio-economic indicators for the Arctic regions, presented in geographical-alphabetical order. It also gives a composite index, which is the average of

Table 2.2. Arctic regions, by socio-economic patterns. 2006

Model	Typical patterns	Variations
<b>“North American model”</b> Figure 2.1	Alaska Northwest Territories Yukon	Labrador Nunavik Nunavut
<b>“Scandinavian model”</b> Figure 2.2	Iceland Nordland Troms Finnmark Västerbotten Norrbotten Oulu Lapland	Faroe Islands Greenland
<b>“Russian model”</b> Figure 2.3	Arkhangelsk Karelia Komi Magadan Murmansk Sakha Taimyr	Chukchi Evenk Khanty-Mansii Koryak Nenets Yamal-Nenets

the six main indicators.<sup>7</sup> At first glance, it appears that the optimal conditions are found in North America, and then in the Scandinavian countries, while the minimal conditions are in the Arctic region of the Russian Federation. However, in order to interpret major regional differences, it is useful to consider the six main indices in a graphic analysis, as explained in the following figures.

The graphic analysis of the main indices leads to the observation that there are three typical models of socio-economic patterns, suggesting three main groups of Arctic regions. These general patterns correspond more or less to the social and political divisions of the Arctic regions: “The North American model”, “The Scandinavian model”, and “The Russian model”. Table 2.2 shows how the Arctic regions are distributed between the three typical models, and indicates some variations within the main models.

“The North American model” represents a pattern where generally all the socio-economic indices have high values. Figure 2.1 shows the results for two such regions: Alaska and the Northwest Territories. Disposable income is at its highest circumpolar level, while the female proportion is somewhat lower.

“The Scandinavian model” represents a pattern where the female proportion, life expectancy, infant mortality and tertiary education are near their highest values, while disposable income and dependency ratio are near the average values. Figure 2.2 shows the results for three of these regions: Troms, Västerbotten and Lapland.

“The Russian model” represents a pattern where generally all the socio-economic indices have the lowest values for the socio-economic variables. Figure 2.3 shows the results for three of these regions: the Arkhangelsk and Murmansk Oblasts, and the Republic of Komi.

Figure 2.1. Main indices of economic and social conditions, Alaska and Northwest Territories, 2006

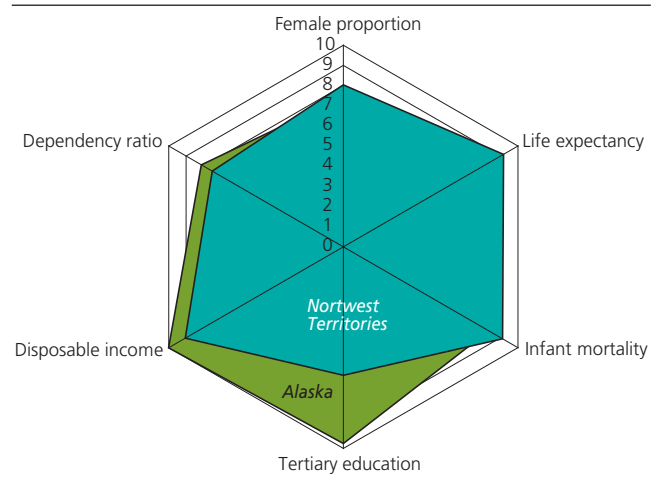
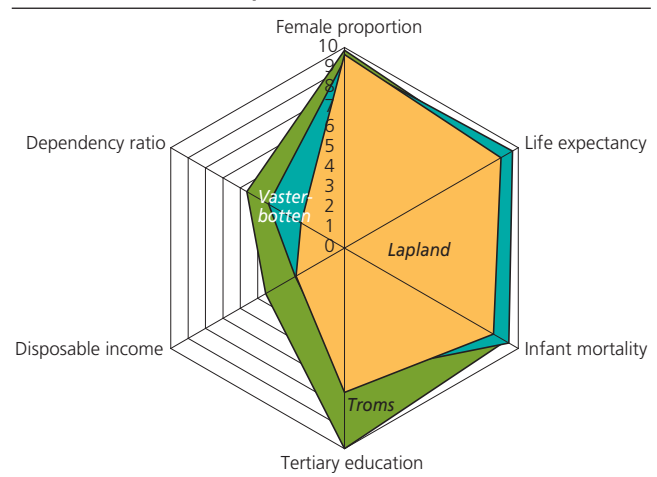


Figure 2.2. Main indices of economic and social conditions, Troms, Västerbotten, Lapland, 2006



The regions that represent these three general models cover two thirds of the Arctic territory and have 77 per cent of the population.

There are, in addition to these three typical models, a certain number of variations.

The regions Nunavut and Labrador (Figure 2.4) as well as Nunavik represent a variation of the general North American model: a dependency ratio and education level well below average, and somewhat lower disposable income than in Alaska and the Northwest Territories in Canada.

The Faroe Islands and Greenland (Figure 2.5) represent a variation of the general Scandinavian model: lower values for the female share of the population and for disposable income. In Greenland, there are also lower values for the other socio-economic indices, except for the tertiary education, where the level is closer to the North American and Scandinavian regions.

Figure 2.3. Main indices of economic and social conditions, Murmansk, Komi, Arkhangelsk, 2006

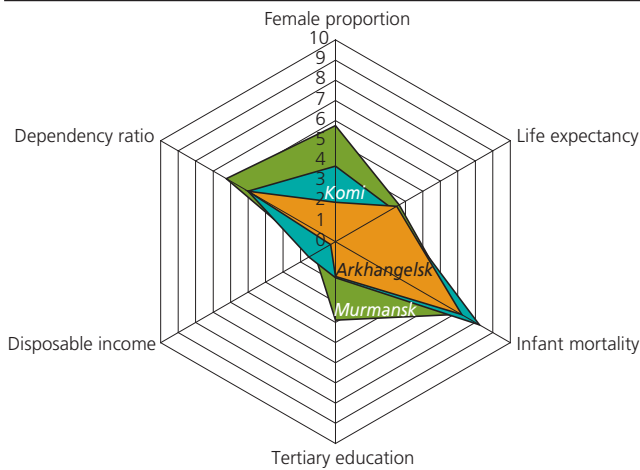


Figure 2.6. Main indices of economic and social conditions, Yamal-Nenets, Khanty-Mansii, 2006

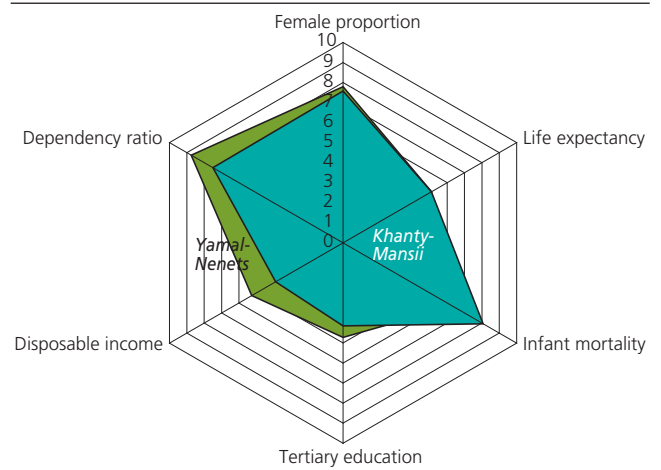


Figure 2.4. Main indices of economic and social conditions, Labrador, Nunavut, 2006

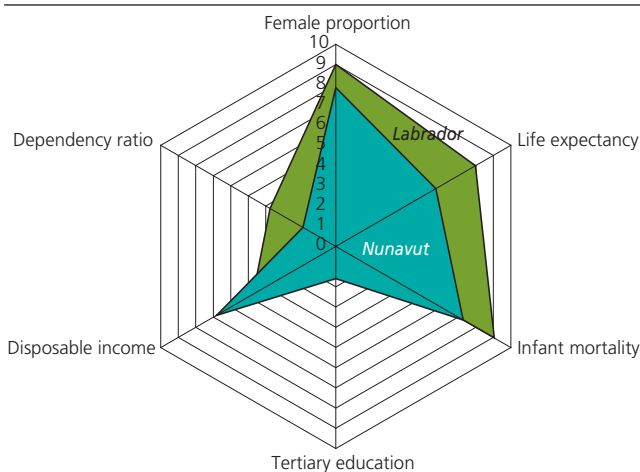


Figure 2.7. Main indices of economic and social conditions, Chukchi, Nenets, 2006

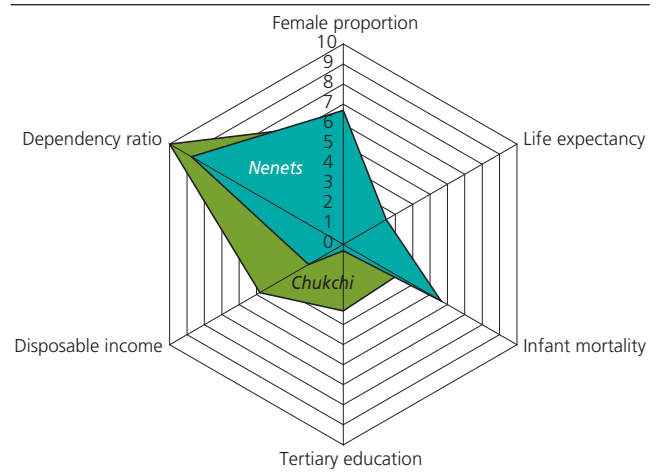


Figure 2.5. Main indices of economic and social conditions, Faroe Islands, Greenland, 2006

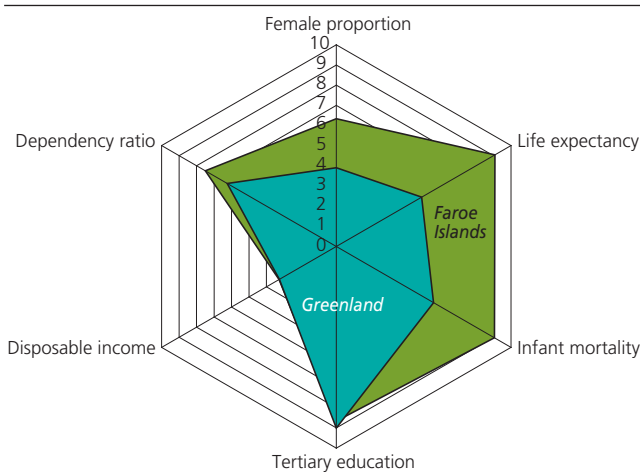
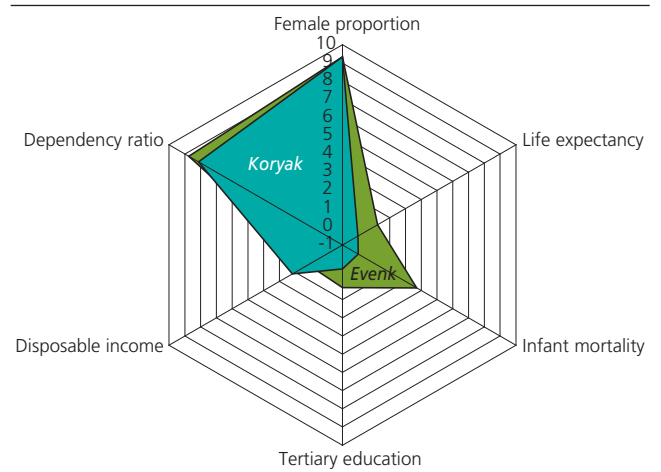


Figure 2.8. Main indices of economic and social conditions, Evenk, Koryak, 2006



The different regions of the Russian North represent several variations of the general Russian model. Yamal-Nenets and Khanty-Mansii have higher values for almost every socio-economic variable (Figure 2.6). Chukchi and Nenets (Figure 2.7) have considerably higher disposable income, higher dependency ratio and higher infant mortality. Evenk and Koryak (Figure 2.8) have slightly higher disposable income, higher dependency ratio and higher infant mortality.

The regions that represent these variations from the three general models cover one third of the Arctic territory and have 23 per cent of the population.

These results indicate that there are indeed general models of socio-economic structure, but that there are also major regional variations. For each of the three general models, we will, in the following discussion, try to characterize the economic structure and the redistribution mechanism associated with the three models and their variations, in order to interpret the observed socio-economic patterns. The power relationships between the social actors, in particular when they involve ethnic or indigenous minorities, will be considered before finally discussing our central question: How does economic development influence human development in the circumpolar Arctic regions?

## **“The North American model”: The neo-liberal regime at the last frontiers**

### **High revenues, little redistribution**

A closer look at some characteristics of petroleum and mining activities in Alaska and Canada can help us understand the first general model, corresponding to what has been called the neo-liberal regimes at the last frontiers for resources exploitation.<sup>8</sup> In order to remove obstacles to resource exploitation, it was necessary to reconsider the status of areas earmarked for environmental protection and for subsistence activities of indigenous and other rural residents. In some cases conflicts were resolved by profit-sharing, ensuring a part of the resource revenues from the petroleum and mining industry to the native peoples.<sup>9</sup>

The first general model presented, “The North American model” comes close to this description. High disposable income is secured in particular by the high salaries of the extraction industry. Income tax paid by individuals is relatively low. However, services for ensuring the living conditions of residents (education, health, social services, housing) are largely the responsibility of individuals or local communities. Redistribution of wealth through social policies may be perceived as weak, in the sense that national redistribution regimes have been modified by a gradual dominance of the neo-liberal economic view and a diminishing role



Thule, Greenland. Photo: Scanpix



Arctic Canada, Igloolik. Photos: Mary Stapleton

of the State.<sup>10</sup> These regions nevertheless enjoy a level of basic services that has made it possible to greatly reduce infant mortality and maintain high life expectancy. The provision of widespread educational services in these regions is quite recent. There are major variations in the schooling levels actually reached, particularly deficient among young native men.<sup>11</sup>

The share of women in the population is below the optimal value; it varies between 48.5 per cent in Alaska and 49.7 per cent in the Yukon (Table 2.1). At the local level, this proportion is perhaps even lower.<sup>12</sup> It may not be explained by the desire of young rural women to go to high school, as they may attend high school almost everywhere, also in small villages. The deficit in the proportion of women is rather explained by the outmigration of young native women, motivated by the desire to find employment to their liking.<sup>13</sup> As a consequence, the dependency ratio is slightly lower, partly also explained by the inflow of single workers to the extraction industry of these “last frontiers” regions.<sup>14</sup>

### The integration of native peoples and their consent

Over recent decades the political weight of native peoples in the American North have increased. The political organisation of native peoples, and their capacity to have their voices heard, including via legal action, have forced public authorities to take their interests into account.<sup>15</sup> This has materialized in the signing of Land Claim Agreements.<sup>16</sup> Indigenous people have been beneficiaries of government compensation transfer payments and as business partners of the oil and mining industry. To some extent indigenous people have been able to share profits from resource exploitation, to limit the environmental damage caused by the extraction industry, and to base their own development on the benefits thus obtained. This has been possible because the democratic roots of these countries remain intact and allow the expression of diverging interests, including those resolved by the courts.

Compared with other regions of the American North, Nunavut, Nunavik and Labrador are peripheries. Penetration of industrial interests has occurred later there, as resources in more easily accessed regions were exploited first. The administrative development of these

territories also came later. In recent years, Land Claim Agreements have played an important role in removing obstacles to resource exploitation, which has become more enticing as the global demand for energy and raw materials have increased. In these regions, disposable incomes are still lower (Figure 2.4). The economy of these regions is based less directly on massive extraction of resources and more on activity within public administration and public services.

In these regions, the dependency ratio and tertiary education level are well below average (Figure 2.4). Are these discrepancies solely a result of the late administrative organisation of the territory? The proportion of native population is much higher in these regions than in other regions of the continent, which explains the high dependency ratio, as the demographic and employment structure of the native population is different from that of the populations of the “last frontiers”. Households are larger, and the number of children much higher, leaving a considerable burden for the population of the workforce. These characteristics make it easier to understand the low rate of higher education. Moreover, low education levels are associated with the relatively recent emergence of a formal educational system where native people have influence, as well as the more recent acceptance of formal education, after the initial and painful experiences of church-controlled boarding schools.

### “The Scandinavian model”: The redistribution mode of Northern Europe

#### Universalism versus economic growth

The Scandinavian model may be characterized by three distinct traits: a work-oriented approach for both men and women, universalism of social security benefits, and the importance of the State in the provision of social security and production of services, based on widespread redistribution of wealth through taxation.<sup>17</sup> This model is not without variations throughout Scandinavian countries.<sup>18</sup> Sweden would be the most representative example, while other countries diverge more or less from the model. In this respect, Iceland is the furthest from the model; the redistribution system is not as extensive and not as costly.<sup>19</sup>



Longyearbyen, Svalbard, the world's northernmost city. Photo: Crestock

This perspective can explain the patterns found in the second general model. The Scandinavian economies are generally more diversified than those of Alaska and the Canadian North.<sup>20</sup> In spite of a lower disposable income, the Northern Scandinavian regions have achieved some of the most favourable social conditions for human development, which can be partially explained by the political redistribution of resources through social policies. Disposable income is lowered through taxation; on the other hand, public revenues generate social development by increasing the level of education and life expectancy, decreasing infant mortality, and by supporting a gender-balanced demography.

In the northern regions of the United States and Canada, government transfers often take the form of transfer payments to families. In the Scandinavian countries, these policies take the form of public services, and transfer payments to families, as well as public pension plans, are usually more generous. Poverty rates in Scandinavia are lower than elsewhere. All indicators point to redistribution policies having had beneficial effects on living conditions in the Arctic regions of the Scandinavian countries.

In the Scandinavian North, life expectancy and education level are the highest within the circumpolar Arctic, and infant mortality is the lowest. The dependency ratio is average as compared with the circumpolar area as a whole. The demographic structure of the regions of the Scandinavian North is very close to the demographic structure of the countries to which they belong. This demographic structure is typical of industrialized countries, with fewer children and more elderly people than in the Arctic regions of North America.<sup>21</sup>

The proportion of women in the Scandinavian North is quite high. However, outmigration of women has

been observed here, too, as elsewhere in the Arctic. In northern Norway and Iceland, outmigration of women is also associated with erosion of their economic and social role.<sup>22</sup> In Iceland, the majority of young people – young women in particular – who live in a fishing or agricultural village, think they will one day migrate to an urban centre.<sup>23</sup> In Scandinavia, the push factors for outmigration of women are to some extent counterbalanced by strong pull factors. First, there are employment opportunities for women in the public sector. Secondly, living in fishing communities is often perceived as “a good life”.<sup>24</sup> Finally, regional centres and villages attract immigrants, who do not feel like they are in “remote” regions, but more in paradises combining beautiful landscapes, outdoor activities, and safety, together with urban elements “such as a clustered society, cafe latte society, gender equality and high mobility”.<sup>25</sup> These perceptions confirm the common impression that Arctic cities and villages in Nordic countries sometimes have more similarities with continental Europe than with North America or Russia. The climate clearly contributes to this difference.

In Nordic countries, the social-democratic tradition modifies the power structure. On the one hand, global demand has pushed the oil industry to constantly look further for exploitable resources. Structural changes in the fishing industry have affected many coastal communities, however, some major factors have made it possible to attenuate the consequences of these transformations, which were more catastrophic in other Atlantic regions that are very heavily mono-industrial, Newfoundland for example.<sup>26</sup> These factors include: the diversity of the economy, social policies for redistribution of wealth, the vitality of citizen associations, including those run by women - based on a relative distribution of power that seems to be more favourable to human development.



### The Invisible Sámi

Within the context of the Scandinavian North, what is the situation for the Sámi people whose traditional areas of livelihood cover the Arctic regions of these countries? Is the Scandinavian model, so apparently advantageous, just as advantageous for native people? The socio-economic data analyzed here are not available on the level of the Sámi people of Norway, Sweden and Finland. The lack of relevant data is due to several reasons, including the geographical dispersion of the Sámi population, with a large number living outside the core Sámi areas of the north, as discussed in the recent Sámi statistical publication by Statistics Norway.<sup>27</sup> (See also chapter 4, table 4.11 and chapter 6.)

The Sámi were for a long time an “invisible minority”, whose socio-economic status was inferior to that of their compatriots, and whose role in the power relationships was more or less nil.<sup>28</sup> The strengthening of the political power of the Sámi, their affiliation with international organisations dedicated to the defence of indigenous rights and territorial rights, and finally the establishing of Sámi Parliaments seem to have counteracted this invisibility. The Sámi do not seem to suffer from discrimination as much as other indigenous populations and they are not “grossly impoverished”.<sup>29</sup> Still, more recent works indicate that, in Finland for example, the Sámi earn less than other inhabitants of the country and are under-represented on the job market and over-represented among the unemployed.<sup>30</sup>

On the other hand, they face problems, in matters of cultural survival in particular. For the minority of the Sámi still involved in reindeer breeding, the problems are numerous. Without even taking into account the climate change and the presence of predators (and policies limiting the capacity of breeders to eliminate them), conflicts regarding land use are numerous: pastures are destroyed or access to them is restricted by the construction of hydro-electric dams and the submergence of land, by the construction of roads and high voltage transmission lines, by the advance of the lumber companies, and recently, by development of infrastructure for wind power.<sup>31</sup> 20 years ago it was pointed out that the Sámi of Fennoscandia were victims of an ideological dilemma resulting from the social-democratic political philosophy. Whereas, in the international arena, Scandinavian countries supported minority rights, on the domestic scene, they prioritized growth, export and employment.<sup>32</sup>

However, the rights of the Sámi have improved considerably the last decades. Sámi Parliaments have been established in Finland (1973), Norway (1987) and Sweden (1992). The explicit granting of constitutional protection of indigenous rights in Finland and Norway, and the mention of the Sámi's interests in the Swedish Constitution, have modified the political landscape of northern Scandinavia, even though the governments have merely delegated authority, with declarations having limited impact. Yet the three countries differ

in their approaches to Sámi rights – Norway has ratified the ILO Convention, while neither Sweden nor Finland has done so.<sup>33</sup> The increase of the Sámi's political weight does not, however, go as far as ensuring them ownership nor control of natural resources.<sup>34</sup>

The previous economic and social situation of the Sámi warranted political action, which has had results. It seems that the gains achieved are due rather to the sustained investment of the indigenous leadership of Fennoscandia than to the inclination of the national regimes to distribute specific rights: their social-democratic foundation does not permit them to forfeit the principles of universalism, or to question the imperatives of growth.

### The peripheral islands

The situation of Greenland and Faroe Islands seems quite different at first glance (Figure 2.5). However, the general model of the Nordic countries applies here as well. Comparing with this model, life expectancy is lower and infant mortality is higher in Greenland. The socio-economic indices are generally more unfavourable in Greenland than in Faroe Islands, a situation that can be related to the general condition of native peoples throughout the circumpolar Arctic.

Like other coastal regions, the economies of Greenland and Faroe Islands are largely based on the fishing industry. In Faroe Islands, massive subsidies increased the capacity of the fishing fleet and processing plants, leading to over-fishing and crisis in the fishing industry.<sup>35</sup> Greenland followed the same path as Faroe Islands, both experienced negative economic growth around 2003 (see Chapter 4).

Disposable incomes are generally lower in Greenland and Faroe Islands than in other Scandinavian regions. This can be explained by an economic structure that is small scale and less diversified, and by the fluctuating income of the dominant fishing sector. The lower proportion of women reflects the desire to outmigrate, associated with the change of women's economic and social role, and with the incidence of domestic violence in these male-oriented communities.<sup>36</sup> The outmigration of young women might also partly explain the relatively low dependency ratio, by reducing the birth rate.<sup>37</sup>

Economic and human development are closely related in these peripheral regions of the social-democratic model. The political orientations favour redistribution of wealth to create the conditions necessary for the development of human capacities.



Greenland/Photo: Crestock

## “The Russian model”: The new Russia

### Old power networks

The third general model of relationships between the economic and social conditions, echoes the situation of the Russian Federation, two decades after the end of the Soviet era. The transition was characterized by extensive privatisation of businesses and creation of a powerful economic and political oligarchy. This adversely affected the economies and social conditions of rural and remote regions; by shrinking the social safety net; by a territorial reorganization leading to marginalisation of ethnic and indigenous minorities; with lower incomes and higher unemployment leading to higher infant mortality, and reduced life expectancy.<sup>38</sup> The socio-economic indices of this group of regions have the values furthest from the optimal conditions of human development, with a few exceptions.

The regions of the Russian North were opened up to industrialisation in the 1920s and 1930s, to supply the resources necessary for the construction of the USSR: iron, nickel, coal, wood, gold, etc. It was supported by immigration - not always voluntary, as in the case of the political prisoners forced to work in mines and on construction of railroads.<sup>39</sup> The present major economic infrastructures (railroads, port installations, industrial complexes) date back to this period, and have long suffered from under-investment.<sup>40</sup>

The dismantling of the USSR and the economic and political reorganization struck a hard blow to these regions, whose years of prosperity are behind them. Unemployment more than doubled in the decade that immediately followed the collapse of the Soviet system. The withdrawal of the government as producer and organizer “have redrawn class boundaries, undermined traditional job guarantees and eroded the old social safety net. The result is a wider gap between rich and poor”.<sup>41</sup> The poverty rate is reported to be between 20 per cent and 25 per cent generally, and 30 per cent or more in 12 of the 21 republics of the federation.<sup>42</sup> Poverty has been particularly severe among single-parent families and large families, among individuals with little education and those living in rural areas. A large portion of the population attempts to make ends meet by cultivating a plot of land or by creating small businesses.

The industrial complexes, which in the past ensured basic social services (health, school, day care), shed these responsibilities when they were privatised. Regional and local authorities were unable to replace the services. Access to higher education is limited. Mandatory private health insurance has not improved health services and has created more disappointment than anything else.<sup>43</sup> “Today, old power networks remain strong and traditional bosses have adapted



Tyonek Fish Camp – A fish camp in Tyonek on the shore of West Cook Inlet, Southcentral Alaska in June 2004. Photo: Davin Holen

their style to remain in power, but they are often in no position to provide for essential needs to their clients.”<sup>44</sup>

The economic transition was accompanied by massive migration from the Arctic regions to the southern regions.<sup>45</sup> Between 1989 and 2002, the Sakha Republic alone is reported to have lost half of its population.<sup>46</sup> Compared to other Arctic regions, the proportion of women is high in the Russian North. It is associated with a shortage of men, largely explained by early death due to pathogenic lifestyles.<sup>47</sup> The low dependency ratio is associated with the current crisis as well as “the demographic echo of World War II”, as “a numerically small generation of children born to those who were born during World War II, a ‘second demographic echo of the war’”. The abruptly narrowed foundation of the pyramid reflects a dramatic fertility decline in the past decade, when the economic crisis of the 1990s and ‘the second echo of the war’ coincided”.<sup>48</sup> The socio-economic conditions of the “New Russia”, built on the Soviet ruins, thus reflect a greatly weakened social situation and a redistribution system which cannot even be qualified as a rudimentary welfare state.

### Powerless minorities

The classification of the Russian regions based on socio-economic indicators suggested three types of variations, representative for Yamal-Nenets and Khanty-Mansii (Figure 2.6), Chuchki and Nenets (Figure 2.7), and Evenk and Koryak (Figure 2.8). The interpretation of these differences immediately introduces the discussion on the condition of ethnic and indigenous minorities in Russia today.

The first variation has similarities with the pattern of the neo-liberal model typical for the petroleum producing regions of the American North. The discovery of massive oil and natural gas reserves in Yamal-Nenets and the Khanty-Mansii dates back to the 1960s. When the reserves were put into production, the population of these regions increased for a short period, in order to take advantage of the high salaries. Life expectancy

and infant mortality were not much influenced, suggesting that economic growth alone may not succeed in improving basic social conditions, at least not in a few years.<sup>49</sup> Other indicators have been improved by higher income and migratory inflow, as the migrants have higher than average schooling and contribute to restoring the demographic equilibrium.

The oil revenues contribute to considerably higher incomes in these regions. Although the Moscow government remains the owner of the resources, it can grant their usage to regional authorities.<sup>50</sup> A consequence of oil revenue sharing was that the budget of the regional authorities became closely linked with exploitation, as is also the case in Alaska. This situation is not trivial: it means that regional authorities will tend to consider the growth of the sector as a main priority, ahead of any other issue. In 2005, the petroleum industry generated more than 50 per cent of total gross regional product in Arctic Russia (see Chapter 4).

The new political structure of the Russian Federation has symbolically acknowledged the presence of ethnic and indigenous groups by attributing their name to the political administrative entities. This is the case of the Autonomous Okrugs of Yamal-Nenets and Khanty-Mansii. Elected and administrative positions were reserved for members of these cultural groups. On the other hand, this structure has sanctioned the political marginalisation of these groups. The demographic weight of ethnic and indigenous groups is less (and sometimes considerably less) than the majority of the residents of these entities (Table 2.1), making them powerless minorities.<sup>51</sup> This is not a new situation, as the marginalization is part of Soviet heritage.<sup>52</sup> As northern Russia seeks to revitalize the economy of its once prosperous regions, its oil-producing regions are little by little turning toward the north-American neo-liberal model, without policies leading to substantial and effective recognition of minority rights.

Several of the ethnic and minority groups have maintained their bond to the land and continue to practice customary activities, from which they derive a portion (if not all) of their income, and their identity, like in



Leftovers, Nuvahut/Photo: Mary Stapleton

Alaska, Canadian North, and Fennoscandia. In these cases, the customary exploitation of the land, like the seasonal move to summer pastures and fishing, is often in conflict with large-scale industry.<sup>53</sup> The power to allocate land and resolve divergent interests is held by regional authorities, whose income depends precisely on oil revenues. When it comes to choosing between revenues from growth of large-scale exploitation of resources and maintaining the customary activities of minority groups, the choice is clear. The result of this type of situation is that ethnic and indigenous minorities are stripped of their land and power.

Although the socio-economic pattern observed in Yamal-Nenets and Khanty-Mansii suggests a quantitative improvement of the indicators considered, and increased incomes for the workers employed in the petroleum industry, it does not reflect an improvement of living conditions and of the capacity to control one's fate for the ethnic and indigenous minorities of these regions. Their lot is statistically obscured by their minority status.

## Conclusion

In all the three main models, economic growth is highly valued. In the North-American Arctic, petroleum and mining industry has to some extent consented to share oil and mining revenues with local populations. In Nordic countries, growth is encouraged because it provides a major source of universal social benefits, even though high-growth industries may be detrimental for customary activities in the land of the Sámi. In the north of the Russian Federation, privatisation has allowed industrial complexes to shed the social responsibilities without introducing alternative social services.

In all the models, there is redistribution of revenues created by large-scale exploitation of natural resources to communities and citizens. There is no doubt that the terms and generosity of this redistribution differ. However, what appears as common to the three models is that the scope for redistribution is closely linked to the capacity of citizens to express their position and make their voices heard, and to the propensity of public authorities to listen to them. This is all the more true in the era of generalized liberalisation of the markets, with strong pressures to avoid barriers to growth. The effectiveness of the claims of the citizens depends at least as much on the activism demonstrated by associations and pressure groups as on the fundamental political orientation.

Our observations have led us to conclude that for all the models, the relationship between the proportion of women and disposable income can be used as a key indicator to diagnose the state of health of the economy and society; that it should be monitored closely; and finally, that industrial developers should integrate the prospects of women into their projects, which they have often neglected to do.<sup>54</sup>

Economic growth affects ethnic or indigenous minorities in all regions where they are present. Their capacity to benefit from the growth differs widely. In Alaska, indigenous people have in some cases become business partners for profit-sharing. In Greenland they have obtained certain regulatory powers and the right to a share of revenues from natural resource extraction. In several regions in the Canadian North they have become sub-contractors and received financial compensation for the use of their territory. In the Russian North they have acquired seats within the public domain and symbolic recognition. We suggest that there is an association between the capacity of indigenous groups to be stakeholders in projects that affect their territories, and the success they achieve in forcing public authorities to grant them tangible power. Land Claim Agreements can probably increase the capacity of the indigenous groups to act upon their fate.<sup>55</sup> However, they are not panacea, as pointed out by many observers, and are often instrumental to obtaining a common belief in the value of growth.<sup>56</sup>

Many of the regions where ethnic and indigenous populations are strongest are located in the “variation” of the models, outside the three main models. In these cases the economic and social condition of minorities shows inequities in the form of lower incomes, lower education levels, lower female proportions, and lower life expectancies, higher infant mortality, and higher dependency ratios. Although they live in developed countries, nothing guarantees that the minorities enjoy the benefits.

In Russia around 1990, several ideas contended in the debates regarding the future of the North and of its “Small Peoples”, as the old regime referred to ethnic minorities: Some argued for conversion to industrial work; others suggested to modernise traditional branches of the economy, technically and financially. Both views basically supported economic growth. There was another option: “The most radical view aimed at the development of genuine native autonomy, with the greatest possible growth of local forms of self-government and of the economic and legal independence of each community”.<sup>57</sup> These solutions have more or less materialized - except the last one. The dominant economic ideology has successfully continued to promote the view that growth is the guarantee of overall progress of society.

In our analysis of the Arctic, we have found that there is not a direct link between economic growth and human development, at least not in the perspective of Armatya Sen. If economic growth had been a guarantee for human development, we would not have found the considerable variability in the socio-economic patterns, with high infant mortality rates and low disposable incomes, even in resource-based regions. We found many indications that economic development in a region does not always lead to improvement in the living conditions, nor increased democratic rights, nor inclu-

sion of local populations in development projects from the beginning, as prescribed in the Rio Declaration<sup>58</sup>. In particular, the situation of the indigenous people reminds us that their interests in many situations remain invisible.

In the relationship of power between business, governments and citizens, one side has a crucial role for orienting economic growth toward human development and the capacity to control one's fate, and that is the power of citizens. Regardless of the form it takes - environmental pressure groups, local associations, labour unions, indigenous associations - the involvement of local populations in the debate on economic interests is the guardrail to redirect economic development toward human development. This does not mean that citizen involvement in the public debate is a guarantee for beneficial human development. However, the manifestation of citizen involvement that we found in all regions of the circumpolar Arctic has led us to conclude that favourable conditions for human development are closely linked to the capacity of all citizens to express their position and make their voices heard.

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## Box I. The use of Purchasing Power Parities in this report



Street business – Siberian women trying to supplement the household budget through street selling. Photo by Gérard Duhaime

The main purpose of this report is to provide an overview over economic activity in the Arctic regions. A major challenge has therefore been to add up and compare production data for different regions in different countries. There are some particular challenges associated with such comparisons. A translation of production data based on a straightforward use of market exchange rates (MER) will normally not reflect the true production volumes of the different regions. To adjust for price differences in domestic markets Purchasing Power Parity (PPP) indicators have been applied. However, also PPP conversion may sometimes lead to a biased assessment of production and income levels.

Chapter 3 provides an overview of the economic activity in the circumpolar region. Based on PPP-conversions it is estimated that gross product of the Arctic in 2005 accounted for 0.5 percent of the world economy, or 301 billion USD-PPP, of which the Arctic regions of Russia accounted for 209 USD-PPP, or 69 percent. PPP-converted gross products (value added) might be considered as proxies for income. In that respect income levels in the Arctic vary from a low of 21 000 USD-PPP/capita in Greenland to a high of 54 000 USD-PPP/capita in Alaska, cf. table 3.6. It is interesting to note the differences between national and regional income within the different nations bordering the Arctic. For example, per capita income of Russia

is around 9 000 USD-PPP at the national level while it is almost 29 000 USD-PPP in the Russian Arctic regions. In Norway the pattern is reversed: While per capita income at the national level is 44 000 USD-PPP, the income level of the Norwegian Arctic regions is 25 000 USD-PPP. Hence, while Norway has a considerably higher national PPP-corrected income level compared to Russia, income levels appear to be relatively similar if we look at these countries' Arctic regions.

As noted the data for the different countries have originally been reported in national currencies, but have in this report been converted into a common currency using purchasing power parities. Alternatively the national currency data could have been converted into a common currency by use of the market exchange rates. The Russian share of the Arctic gross product would, for example, then have been estimated to 46 percent, instead of 62 percent, cf. also Figure 2.

In most studies comparing different countries PPP-conversion is preferred to market exchange rates. We have followed this tradition and have applied PPP-converters developed by the International Comparison Program and the OECD-Eurostat PPP-program.

The advantage of PPP-conversion is that it takes into account that price levels vary considerably between countries. A frequently applied illustration of the variation in price levels is the price of a Big Mac in different countries. Using market exchange rates the average price of a Big Mac in Stockholm was 4.53 USD in April 2006, where as the price in Moscow at the same time was 1.77 USD. This illustrates that almost identical products are priced quite differently even in the Arctic countries if we use market exchange rates as the basis for price comparisons. Consequently MER-conversion of production levels might give seriously misleading numbers as far as production and consumption levels are concerned.

When practising PPP-conversion we would have preferred to use PPP-factors specific for the Arctic regions in each country, but Arctic-regional PPP-factors have not been developed. Instead we have applied PPP-factors for the national economies.

It is difficult to judge to what extent the use of national PPP-measures is misleading. If the economies of the Arctic regions simply were downscaled versions of the economies of the respective nations and products were priced uniformly across regions, the national PPP-converters would not have been a source of error. However, the Arctic regions are quite different from their respective national economies, as discussed in chapter 4. Moreover, the general price levels are different between different regions within the individual countries. A Big Mac is, for instance, more expensive in Anchorage than in New York. Hence, just as the use of MER-based numbers would represent a source of error, using national PPP-based numbers are also a source of error.

The Russian Arctic region is more dominated by oil and gas production than the rest of the Russian economy. Oil and gas are internationally tradable goods and the relatively high average income level of the Russian Arctic is largely due to the oil and gas industry. The dominance of the fuel industry in the Russian Arctic indicates that the use of a PPP-converter calculated for the whole Russian economy will probably represent an over-correction when it is applied to the Russian Arctic regions.

Figure 1 illustrates how sensitive the estimates of regional GDP per capita are to the choice between PPP and MER. When PPP-factors are applied, regional GDP per capita in Russian Arctic are close to the income levels of the Arctic regions of the Scandinavian countries. However, as MER-factors are applied, the income levels in Arctic Russia appears to be much lower.

It should be noted that we have reported data on regional GDP, not gross regional incomes, which have not been available for all Arctic regions. Because regional GDP, contrary to gross regional income, does not include transfers between regions, regional GDP per capita does not constitute a precise representation of income levels in the different regions.

Figure 1. **GDP per capita by Arctic Region 2005.**  
 1 000 USD

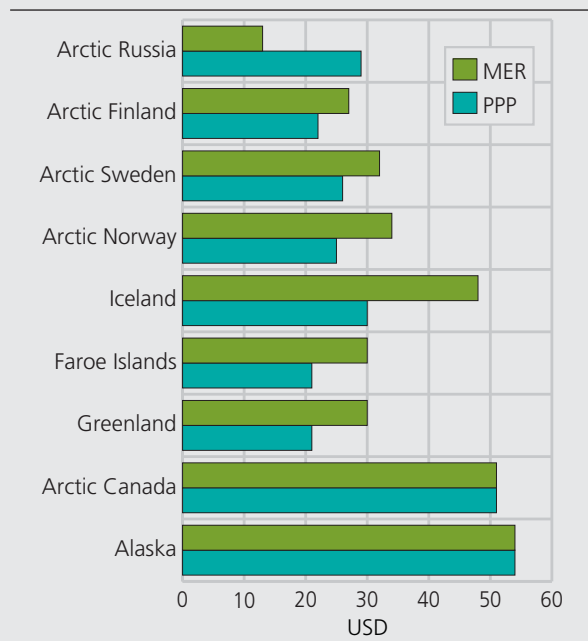
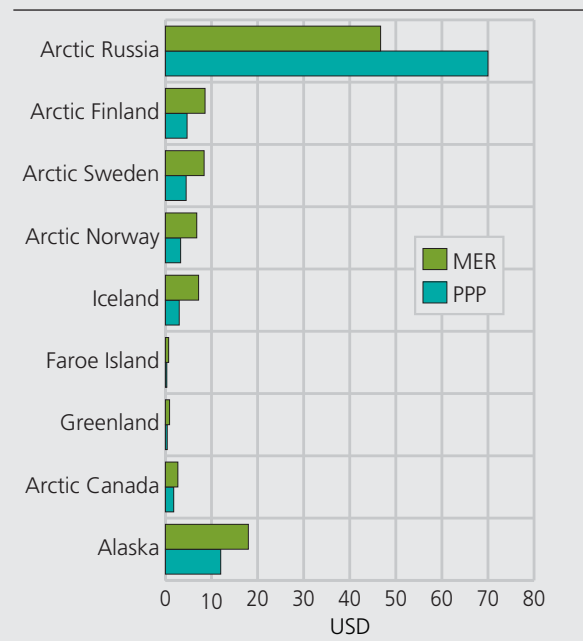


Figure 2. **Arctic Region share of total circumpolar GDP.**  
 2005. Per cent





Nuuk, Greenland. Photo: Tom Nicolaysen