Module 7

Consolidation

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Course objectives

This module examines the ways in which governments and other social agencies reorganized northern peoples for their ideological or organizational convenience. The module begins by recalling the first interventions by fur traders and their motivations for interfering with indigenous settlement patterns and economic activities. It then describes motivations for centralization by which government agencies induced (semi-)nomadic people to settle and discuss cases of imposed relocations and different reasons for which indigenous peoples were moved.

This module sheds light on collectivization processes in Soviet Russia and reviews contemporary developments in northern Canada and in other northern regions. We also discuss the effects of these changes on indigenous people, their reactions to them, and the legacy of the period. The final part of this module is devoted to industrialization in the circumpolar north.

Upon completion of this module you should be able to:

1. describe industrialization in each region and identify big industrial centres and cities on the map;
2. compare different indigenous, minority and northern policies in different states.

Introduction

This module presents a dramatic chapter of the recent history of northern indigenous peoples, when government agencies, motivated by economic reasons or ideology, or both, initiated measures that interfered with the settlement patterns and economic activities of these inhabitants of the circumpolar north. In all parts of the Arctic, and especially during the period 1930-1970, paternalistic governments – whose agents believed that the people affected would not have understood that these measures were for the ultimate good of the people – imposed changes that concentrated populations into settlements. For many people, the interventions that will be outlined in this module meant a rapid social change from a relatively autonomous way of life, based mostly on a traditional socio-economic basis (hunting, trapping, gathering, herding and fishing), to totally new concepts and living habits. Nomadic people were centralized and relocated; sometimes these relocations were imposed. “Unprofitable” settlements were closed. Schools and facilities were deliberately located away from indigenous villages in settlements representing the first stages of urbanization where control of many functions was in the hands of newcomers.

As a result of the economic development taking place in the circumpolar north, it became possible to make a livelihood from activities other than the heretofore traditional ones and unemployment became a feature of life in settled communities. In the former USSR, for

instance, collectivization forced people into wage employment. The social and cultural impacts of these interventions were far-reaching.

Economic development in the circumpolar north is characterized by resource development and post-Second World War industrialization. While each state and region has experienced complex and distinct histories, one can find commonalities in the way resource and industrial development has unfolded. Borrowing from Robert M. Bone (2003), we can observe that for all of the Arctic regions we will examine there are three underlying characteristics of economic development: (1) A dependence on primary and tertiary activities; (2) a small secondary and quaternary economic development; and (3) decisions about social and/or economic affairs are made outside the region of development by both government and entrepreneurs. Within the context of this observation, we will delve into the history of industrialization in four major areas of the circumpolar North: Alaska, Canada, Northern Europe – primarily Norway – and Russia.

Aboriginal settlement patterns in the Arctic

Until comparatively recent times most inhabitants of the Arctic, with the exception of the Sami people, lived in autarky: economic self-sufficiency and independence. "Living off the land" meant that groups of humans had to fend for themselves and to obtain most of what they needed for their subsistence – food in particular – directly from the environment, rather than through exchanges with other people. Migration and nomadism are two necessary adaptations to living off the land in the Arctic. Villages were periodically abandoned to let local resources replenish – an equivalent of the agrarian practice of letting a piece of land lie fallow – without outside intervention. As numerous studies have shown, there is a strong correlation between the annual settlement cycles of the different Arctic indigenous peoples and their exploitation of resources. The settlement patterns of these populations are to a very high degree determined by the location, movements, and distribution of the species people fed upon. In the comparatively poor regions of the central Canadian Arctic, for instance, Inuit had to disperse every summer in groups no larger than a nuclear family (i.e., consisting only of parents and their children) to fish and search for caribou. Other areas had a richer and more stable supply of resources, such as at selected spots on the shores and islands close to the Bering Straits

where permanent villages have existed for more than two thousand years, referring to Western Alaska.

People from the south who migrated to the Arctic to exploit its resources could depend on their home region for supplies. The Hudson's Bay Company (HBC) founded in England in 1670 to engage in the fur trade, for example, established trading posts throughout the Canadian North. Some posts were strategically placed on the coast and could be supplied by ships coming directly from England every summer. The ships brought a good deal of the food and supplies needed throughout the year by the employees of the company who "over-wintered", living there year round. The staff who manned the trading posts were Europeans, but Aboriginal men and women were hired at the "forts" – fortified trading posts – for diverse and more or less temporary tasks, such as unloading the ships, doing domestic work around the posts, guiding exploratory parties, hunting for fresh meat and making fur clothes.

It was in the interest of the fur traders at the trading posts to have indigenous suppliers who hunted and trapped for their own subsistence. The hunters needed to be where the fur-bearing animals were abundant, so the fur traders discouraged them from remaining near the trading posts, except for when they bought their furs to trade. Similar situations existed in most regions of the Arctic, with little variation, because the basic determinants were the same everywhere. The fur traders attempted to bind individual hunters to one specific trading post. The institution of a credit and debt system was efficient in this respect but the fur traders also succeeded early in the fur trade in causing population migrations to follow the fur-bearing animals. These early interferences with settlement patterns and locations of indigenous peoples culminated in some outright relocations over long distances. As early as the eighteenth century, Russian fur traders took Aleut people along with them from their island chain to hunt furs in Southeast Alaska.

Other interventions were imposed by Christian missionaries who were among the first category of newcomers to the North and encouraged indigenous people to live or gather near them and their church, as we discussed earlier. Greenland also presents a good example of this. In Scandinavia, on the other hand, the missionaries arrived many centuries after the trade relations had been established. To inculcate notions of Christianity requires close and prolonged contract. Missionaries often settled alongside the trading posts in order to profit

from the already established logistics. They encouraged Aboriginal people to visit the mission at least for major holidays, such as Christmas and Easter.

Twentieth-Century government interventions in indigenous settlement patterns

During the period from about 1930 to 1970, government agencies in various states in the circumpolar North intervened in the settlement patterns, economic activities, and many other aspects of the lives of the indigenous peoples who were placed under their jurisdiction. In Canada, the HBC undertook relocations, with government approval, in the early twentieth century, and until as late as 1941-42, when some Inuit were moved by the HBC from Nunavik to Southampton Island (Damas 2002:36). With similar justification – that is, to move people away from a depleted area to new hunting grounds – East Greenlandic Inuit were removed from the Ammassalik district in 1925 to settle Scoresbysund, a thousand kilometres to the north. People were also moved away from areas flooded by hydro-power dams (e.g., James Bay in Canada; Alta in Norway). As governments concentrated people in certain settlements, their control over indigenous life increased, as did their potential to further transform it. Nomads were induced to settle, and smaller indigenous settlements were condemned and their populations forced to concentrate in a small number of larger settlements. Such processes of concentration and centralization correspond to two distinct movements. First, the settlement of formerly (semi-)nomadic peoples, dispersed populations. Second the concentration of already settled populations into larger and less numerous centres.

The overarching motivations for these interventions were similar everywhere. Indigenous ways of life, in particular nomadism, were considered "backward" and incompatible with the conceptions of modernity and social "welfare," that were accepted at the time. Policies to change indigenous ways of life were applied in a rather paternalistic manner.[1] Indigenous people were considered incapable of understanding and of applying themselves to such

[1] Paternalism applies to the policy of an authority regulating the conduct of those under its control in matters affecting them as individuals as well as in their relations to authority and to each other. In other words, to act like a father with the right to make decisions for the child. Under pretext of protection, decisions are made without consulting those who are affected. For instance, during the formation of the Canadian Eskimo Affairs Committee in 1952, a senior government official asked about the absence of Inuit members, said: "The only reason why Eskimos were not invited to the meeting was…that it was felt that few, if any, of them, have yet reached the stage where they could take a responsible part in such discussion" (Damas 1993:20).

transformations. The government agents, therefore, felt justified in imposing changes without consulting those who would be affected. Such procedures have been described as “social engineering” or “planned social change”.

Concentrating populations in permanent settlements was seen as the most efficient way to provide people with education, health services, modern housing and institutions, and other benefits of modern civilization. Government services are easier and cheaper to deliver to a small number of larger settlements than to a large number of smaller settlements. The location of larger settlements was determined by accessibility or by the proximity to employment in industry – for example, mining or commercial fishing. Towns such as mining towns were also soon condemned when they were no longer profitable, such as in Qullissat on Disko Island in Greenland (1924-1972), thus – again – forcing people to relocate.

Relocations, moreover, were often associated, at least partly, with sovereignty claims. The establishment of a village on Wrangel Island in 1924 helped secure Soviet claims to it. The move of Ammassalik Inuit to Scoresbysund in 1925 established Danish sovereignty at the expense of Norwegian claims; the resettlement of Canadian Inuit to Ellesmere Island in 1953-54 secured Canadian claims. During the Second World War, Aleuts were moved away from Japanese invaders to Southeast Alaska and Russian Skolt Sami were resettled in Finland. Later, during the Cold War, Siberian Yupiit were relocated away from sensitive areas close to the US: Ratmanova (Big Diomede) Island, and Naukan. In 1953, 116 Inuit from northeast Greenland were evacuated from Thule, where the Americans had built a radar base, and were relocated one hundred kilometres north. Canada and the Soviet Union present examples of contrasting government policies of resettlement and concentration. The following sections give overviews of developments in these two states and discuss the social impact. Within Russia, we will focus on the Republic of Yakutia (Sakha).

Centralization, collectivization and relocation in Soviet and Post-Soviet Russia

The most influential factor in the development of Russia during the twentieth century was the dictatorship of the Communist Party. From 1917 to 1991, the party imposed a Soviet regime based on the ideas of Marx and Lenin.

Centralization and Collectivization

Collectivization in the Soviet Union began shortly after the regime was established. It consisted of abolishing private ownership of the means of production and combining labour implements, material, financial means, and working power in communities of different types (*Sovkhoz, kolkhoz, artel, tovarischestvo*).[2] In a later stage of the process, all collective labour and property of collective farms came under the control of, and were used for the interest of, the state. Following Marxist-Leninist ideology, collectivization was implemented to get rid of class enemies and build a socialist society without capitalist exploiters.

Reforming the Aboriginal farms and housekeeping into co-operative societies and collective farms made it also easier for the state to control, inspect, and confiscate trade products of indigenous peoples for the benefit of the state. The final results of the work of hunters, reindeer breeders, and fishers was subject to collectivization, as well as the fishing and hunting equipment and reindeer herds (Khatylaev 2001:71-77). For example, in 1930 there was redivision of property in the northern part of Yakutia. Solvent and well-to-do families were declared to be *kulaks*. Their property was subject to confiscation and could be assigned to collective farms. This process was called the "dispossession of the *kulaks*." Any sign of protest or opposition could be met with arrest and a punishment that ranged from exile to the death penalty.

In 1930-31 the collectivization of the northern Yakut, which also could be called "forced cooperation with confiscation of property", began. In the Bulunsky region of Yakutia, for instance, 19 small collective farms were created. They represented 18 per cent of all farms of the region and 107 member families. Those collective farms were given 13,000 reindeer out

[2] These Soviet Russian words designate different forms of collective "farms" and work organizations.

of the 28,000 confiscated from other rich farms. The rest of the reindeer were distributed to other state organizations. The Bulun uprising of 1930 – a violent protest organized by owners of the confiscated property – was quashed and the rebels were cruelly punished. A special detachment sent by the All-Union Central Political Administrative Board checked the nomad camps of indigenous peoples and arrested many people. In order to save funds, the arrested people were punished in the simplest way: they were beaten by axe and hauled over the ice (Vinokourova, field data, Bulunsky region of the Sakha Republic, that is, Yakutia).

The process of collectivization was more or less completed by 1940; only some individual peasant holdings remained until the 1950s. In the 1940s, the northern collective societies were reorganized into *kolkhoz*, which were typical for the whole USSR. These Soviet collective farms exploited the indigenous inhabitants, and although the indigenous peoples worked hard at reindeer breeding, standardized taxes had increased, and the price of trade goods was high, while income was low. Having founded the collective farms, the state then intruded in all spheres of life of the northerners, including labour, life, family relations, and leisure. All meetings of members of collective farms were held under the ideological control of representatives from the Communist Party of the USSR. Inquiries of members of the collective farms about their personal property that had been passed to a collective farm were stopped (Vinokourova 1993:9). Later, in the state's next campaign, the *kolkhoz* were restructured into state farms, which were larger than the collective farms. Whole districts and republics transferred from being collective societies into state property. Within several years, almost all *kolkhoz* were consolidated into a smaller number of state farms, which were regarded as providing improvements in the lives of northerners. There were several reasons for the collectivization. The main one was that the newly established mining centres in the North required provisions (mainly food) that could be readily available. Moreover, the restructuring of the archaic collective farms into state enterprises improved the payment schedule and ensured an eight-hour working day, with holidays and other worker benefits.

The introduction of reforms had different consequences in the northern economy. Gradually, the spheres of traditional occupations had diminished. Only large state farms were engaged in reindeer husbandry. Earlier, private traders and many collective farms used to have reindeer as an additional occupation. It was, however, observed that the monopolization of reindeer husbandry did not lead to qualitative and quantitative gains. For instance, in Yakutia in the 1980s, the number of reindeer livestock saw almost no increase. From the 1960s to the 1980s,

new occupations – such as breeding fur animals in cages, growing vegetables, breeding dairy cattle, and dairy farming – were introduced in the collective farms of the North. There were even attempts to grow maize. The risks of trying new ventures were high: many activities were tried to the detriment of traditional occupations but most innovations did not adapt well to the North.

Relocation

For a long period, the policy of resettlement was an important aspect of state policy. Resettlement, strongly related to the process of collectivization discussed previously, occurred in three ways: (1) settling people in compact areas where they were to establish the collective or state farms; (2) creating new settlements for nomadic Aboriginal tribes; and (3) resettling according to administrative and political ideas. Indigenous territories were encroached upon by extensive functioning of large mining companies, the size of military bases and areas, and designation of restricted frontier territories – or indigenous lands were just expropriated.

The first process of resettlement was in the 1920s and 1930s, when national, indigenous, and administrative units were being founded. For instance, in the 1920s, settlements for Negidal people were created in Khabari. Later, in 1943-47, the Negidal people were resettled by force to villages where the Russians outnumbered them. Aboriginal villages close to the USA were closed for reasons of state security, and indigenous peoples also had to leave their traditional territories in Yakutia, Chukotka, and Yamal. Hunting territories of the Chukchi, Sakha, Evenk, Even, and Yukagir people were taken to develop industrial and strategic sites (e.g., railway, electric, and hydro stations; airports). The industrialization of the circumpolar north will be discussed in more detail in the second part of this module.

The policy of forced resettlement caused the destruction of the traditional economic structure, way of life, blood relations, and community relations. Assimilation with other nations led to the loss of the mother tongue and traditional cultural values. Moreover, Russian-language propaganda in the education system in the 1970s and 1980s increased the process of assimilation of indigenous peoples. As a result, in the 1980s, 70 per cent of Negidal'tsy people, for instance, considered the Russian language to be their first language.

A campaign of transition to the settled way of life had its maximum scope after 1957. The Central Committee of the Communist Party of the USSR adopted a resolution called

Activities on Further Development of the Economy and Culture of the Peoples of the North. In addition to assistance and support provided for indigenous peoples, it was thought necessary to bring the traditional nomadic existence to an end. This campaign caused great damage when it declared that nomadic settlements had no social or economic prospects. The farm plots, and areas that had already been worked up, were abandoned, and small national villages were abolished. The cultural environment and spiritual relationship with traditional territories was broken. Very often in the new larger settlements, the amount of technical equipment, people, and domestic animals exceeded the carrying capacity of the soil and water available. The fragile environment of the North was threatened.

Conditions in the Russian Arctic changed tremendously after the collapse of the Soviet Union in 1991. Except in a few resource-rich regions, the evolution is characterized by disinvestment by the state, which had previously played a central role; massive out-migration of recent immigrants; severe economic impoverishment; and attendant social and cultural disruptions. The Russian central and regional governments have endeavoured to reduce costs by, for example, cutting subsidies to induce Arctic residents to move back to more southerly regions. This has been an effective measure in Chukotka where a rich oligarch governor provided financial incentives for out-migration (Csonka 1998), but without such economic incentives, people tend to stay (for example in neighbouring Magadan where many who would like to have moved did not have the financial resources to cover the costs of the airfare and relocation. Indigenous people belong in the north, so are not leaving but they, in turn, are moving from the smaller villages to regional centres, where jobs and food are easier to secure.

Laissez-faire and relocation in Canada

As the Canadian Arctic is comparatively poor in natural resources, and as its staple terrestrial game – caribou – migrates over vast expanses, Aboriginal people were traditionally nomadic and widely scattered. The wintering locations of European and Euro-American whaling ships had already determined migrations and aggregations of Inuit around them in the last decades of the nineteenth century and since the beginning of the twentieth century trading posts had been established north of the treeline. Until the 1950s, things remained as they were throughout the fur trade. Indigenous people were encouraged to remain dispersed, so they could live off the land by hunting, fishing and trapping furs. Starvation was not uncommon,

and in some cases related to the trapping economy, for example, when hunters, in situations of impending scarcity persevered in their search for fur-bearing animals instead of concentrating on subsistence hunting.

Laissez-faire

But the Canadian government did not respond and basically left the north to the fur trade and the HBC. In sharp contrast to the developments in Soviet Russia, in Canada, "the policy of dispersal had as its main ingredients a laissez-faire governmental philosophy, an austere economic stance, and the rationalization of preserving Inuit culture" (Damas 2002:107). As late as 1944, there was only one public day school in the central Arctic, in Pangnirtung; otherwise, classes were casually arranged by the missions when Inuit sojourned near them (Damas 2002:42). "The most important step to enhance the welfare of the Inuit before the 1950s was the implementation of the Family Allowances Act of 1944 in the Canadian Arctic" (Damas 2002:43).

Relocation

In 1953, some families from Inukjuaq in Nunavik, and from Pond Inlet on Baffin Island, were induced by government agents to let themselves be resettled in the High Arctic, at Craig Harbour (and later at Grise Fiord) and at Resolute – thousands of kilometres to the north. The motives for the relocation and the hardships endured by those who were relocated were much debated in the 1990s. It was long suspected that the affirmation of Canadian sovereignty on these large islands of the Arctic Archipelago was one of the prime motives for the move, but this accusation could not be proven on the basis of remaining evidence (Damas 2002; Marcus 1995; Royal Commission on Aboriginal Peoples 1994; Tester and Kulchyski 1994).

Dene (Chipewyan) who hunted caribou on the Barrens in season, were removed in 1956 and relocated to Churchill; after a few miserable years, they were relocated, again, this time to Duck Lake in northern Manitoba. A group of about 50 Caribou Inuit dwelling inland, far from the west coast of Hudson Bay, were relocated in 1957, away from the radio station on which they were considered to be becoming too dependent for relief rations. They were deposited at Henik Lakes, an isolated area where several people starved, before being moved to Eskimo Point (now Arviat), on the west coast of Hudson Bay. The same people were then moved to Rankin Inlet, a few hundred kilometres to the north, so that they could work in the nickel

mine (which had opened in 1953 and was closed after nine years). Later on they resettled in a village constructed in Whale Cove in 1958-59, while a few finally drifted back to Arviat.

In a recent book, David Damas (2002) has attempted to assess the factors involved in the concentration of Inuit of the central Canadian Arctic:

> It was clearly the rise of the new Welfare State Policy that had the greatest impact on population concentration during the 1960s. The related loosening of the purse-strings of the government made it possible for humanitarian considerations to supersede the austerity that had dominated the Policy of Dispersal (Damas 2002:18).
>
> Indeed, concentration of settlement in the Central Arctic was not so much a considered policy (and its inevitability was for a long time only reluctantly recognized) as it was a largely unintended consequence of the new Welfare State Policy….The Welfare State Policy was implemented in programs that promoted better health conditions, education, and comfort for the Inuit of Canada. In particular, poor health was thought to be related to inadequate housing programs in the centers of settlement. Motives for in-gathering in the early stages of the process were diverse and are not easily isolated. It is likely that, as the process accelerated the "gradual acquisition of urban preferences by Native people" cited by Vallee et al. entered into the picture (Damas 2002:191).

Centralization and concentration in Alaska, Northern Europe and Greenland

Processes of centralization and concentration of indigenous populations were also at work in Alaska and intensified during and after the Second World War. Since settled villages already existed before contact, these processes were a matter of degree rather of than the kind in Canada.

The Second World War also brought wide-ranging changes to the Sami of Norway, Sweden, Finland and the Kola Peninsula in Russia. The Finnish Sami were evacuated to more

southerly regions of their country at the beginning of the German invasion. In 1944 the retreating Germans burned most of Finnish Lapland and all of Finnmark in northern Norway. Thereafter, the area was rebuilt according to entirely new, southern-inspired standards. In Finnmark the characteristic difference between Norwegian and Sami settlements was obliterated, which became an important factor in the Norwegianization of the Coast Sami in particular. Skolt Sami were resettled from Russia to Finland (Linkola and Linkola 2002). These relocations and the closing of borders at a later stage, deeply affected the settlement patterns of Sami reindeer herders.

Change started accelerating in Greenland during the Second World War, when the island was cut off from Denmark, which had been invaded by the Germans. US military troops came there to build airports and stayed there. Greenland, formerly a colony, became a province of the Danish kingdom in 1953. Interventionist state policies of the 1950s and 1960s aimed at modernizing Greenland. Towns on the ice-free coasts of southwest Greenland were earmarked for rapid development. By making conditions less attractive in the smaller hunting settlements, and more attractive in a few centres, former hunters were induced to move to towns in the south western part of the country where they were expected to find employment in for instance commercial fishing. Commercial fishing is after public service, the second largest employment sector in Greenland. Cod, halibut and shrimps are important for the Greenlandic economy. Royal Greenland – a wholly government-owned fishing company – provide jobs for more than 900 Greenlanders and is among the world's largest suppliers of cold-water shrimp and halibut.[3] The development of the fisheries industry, from being a traditional livelihood to a modern industrialized fishing industry, was seen as an important contribution to the centralization of economic activities in a few large settlements where modern processing plants and houses were built.

It has been chronically difficult to keep up with the housing demand for the growing urban population. Many large apartment buildings were constructed in the 1960s and 1970s. They were the first homes to be equipped with electricity and running water. However, they proved ill adapted to social conditions in Greenland, and they contributed to the rise of social problems associated with urban life. Since the introduction of Home Rule in 1979, the development of towns at the expense of outlying settlements remains a central political issue.

[3] Royal Greenland Annual Report 2012/13, page 8.

Calls to cease investing in – or to close down – settlements that survive on public transfers are regularly heard and give rise to protests in the villages and among the more traditionally oriented part of the population.

In sum, many government interventions, such as those in education, health care, and welfare, had ethical justifications, which in turn justified the forced relocations and the inducements to centralization and concentration. Not all of the changes were for the worse. Nevertheless, the way they were imposed implied a loss of control over local affairs, and over collective as well as individual destinies. In small northern settlements, local people could not escape the impression, at times, that they were watching helplessly while things were being done around them and "for" them (e.g., the building of houses, infrastructures, and schools; the administration of justice) which they would not themselves have chosen. The emergence of feelings of alienation in turn contributed to the rise of social problems, such as suicide, violence, the breaking of laws, and alcohol abuse.

In a few cases, those relocated have recently sued their governments for the suffering they have endured (e.g., the "High Arctic relocation" in Canada; and the relocation of Thule Inuit away from an American military base to Qanaaq). Governments, however, are reluctant to acknowledge that they have made mistakes, and concentration and urbanization – the migration from smaller settlements to larger urban settings – remains a general trend throughout the circumpolar North. Although collectivization is being reversed in Russia and the Norwegian government pursues a policy of discouraging migration from small settlements, roughly one-quarter of Greenland's population now lives in Nuuk, Greenland's capital and 40 per cent of Iceland's population lives in Reykjavik. As to relocations, it may well be that global warming will increase the number of villages threatened by coastal erosion (the coast being left unprotected from waves by sea ice for longer periods each year) and the melting of the permafrost, on which buildings rest, so more relocations of villages may have to take place.

Industrialization in the circumpolar North

While the beginnings of the industrial age may be traced back to the industrial and agrarian revolutions in England in the eighteenth and nineteenth centuries, industrialization in the circumpolar region that we will examine in this section only began towards the end of the nineteenth century and in the beginning of the twentieth century. Industrialization, whether in the late eighteenth century or the late twentieth century, leads to accelerated development because of and through economic and social transformation. These two act in symbiosis to fuel the industrial drive, be it in a capitalist democracy, a social democracy, or a communist system.

It is difficult to identify many regions of the circumpolar North as industrialized in the strictest sense. Only four cities with more than 300,000 inhabitants can be found in the circumpolar North, Anchorage in Alaska and Russia Arkhangelsk, Novy Urengoi and Murmansk in Russia. In addition six more cities with more than 50,000 inhabitants can be found in the circumpolar North in Iceland (Reykjavik), Norway (Tromsø), Alaska (Fairbanks, Alaska) and Russia (Vorkuta, Norilsk and Severodvinsk). Most of the residents of these cities are non-indigenous immigrants. For the most part these regions are still sparsely populated and with the exception of some parts of the Russian North and Siberia, do not have factories, assembly lines, and smoke stacks, which we tend to associate with industrialization. Taking a broader definition of industrialization, however, one cannot deny that industrialization and industrial development have taken place and do exist in the circumpolar North. Indeed, we may argue strongly that the trappings of industry and industrialization have been in the North for well over a hundred years. For this module, then, we define industrial and industrialization in the broader context to include resource development to advance industrialization at the core and the accumulation of capital by governments and industrialists. Moreover, while industrialization is fuelled by resource development occurring in the hinterland, resource-based economies are also a consequence of industrialization. Industrial mining has been important in Sami areas in Sweden and Norway, for example in societies like Kiruna, Gællivarre, Porjus, Kirkenes, Sulitjelma and Kjøpsvik. The existence of industrial infrastructures in the North – such as urban centres, railroads, highways, hydroelectric dams, pipelines and oil derricks, airline landing strips, military bases, and mines – are indicators of industrialization.

Summing up; historians argue that the Industrial Revolution in the United Kingdom that began in 1750 cannot stand as the sole model or framework for all subsequent industrialization. For example, with the decline of the landowning peasantry and of the dependence on subsistence agriculture, Great Britain was poised for industrial development. On the other hand, in late nineteenth century Russia, the opposite was true: the peasantry was still attempting to adjust to emancipation; thus, they were still dependent on former landlords and the state and were still practising subsistence agriculture, yet the Russian Tsarist state was forging ahead with industrialization. The picture changes even more dramatically in the mid-twentieth century if we explore the industrialization drives that occurred in the Nordic states, the Canadian North, Siberian Russia, and Alaska. As populations increased, the search for more natural resources and industrial prospects expanded to the hinterland. Industrialization also transformed the lives and environments of indigenous people of the circumpolar North. While it may be argued that the character of industrialization was very different at different times in history and in various locales, we may still draw parallels to the kinds of processes that accompanied industrial development and, more importantly, to the economic and social transformations that resulted.

Defining economic and industrial development in the circumpolar north

Before we examine the development of some of the major industrial projects in the North and what kind of effects they have had on populations and the environment, let us briefly recall three of Robert M. Bone's (2003) underlying characteristics of economic activities in the North and discuss them in turn:

A dependence on primary and tertiary activities

Dependence on primary activities means a reliance on the extraction or harvesting of natural resources, such as timber harvesting, oil and gas extraction, and mining. We may define tertiary activities as those economic activities that maintain primary economic activities. They revolve around the organization of production, the logistics of distribution and marketing, the maintenance of equipment, and the consumption of goods and services.

Small secondary and quaternary economic development

Low-level or small-scale manufacturing and processing activities define the development of small secondary economies in the North. While secondary economic activities have been typically marked by the processing of raw materials into products, in recent years secondary activities have grown to produce intermediate and final products.

Decisions about social and/or economic affairs made from outside by both government and entrepreneurs

This third point highlights the centre-periphery relationship that typifies economic and industrial development in the North.

Keeping in mind these characteristics of economic activities in the North, there are a few other generalizations that exemplify northern economies:

- The heavy reliance on primary resources makes northern economies and communities vulnerable to boom and bust cycles of economic development.
- While northern economies and communities that engage in primary resource economies may seem "peripheral" to markets at the core, they are sensitive to the world economy and its demands for natural resources. Thus, northern economies and industries are strongly affected by the fluctuations in the world market.
- Because of dependence on primary resources as the foundation of the economy of northern regions, these economies experience "severe economic leakage" (Bone 2003), with much of the profit and benefit from these industries going to developed regions.
- A large segment of the workforce, often non-indigenous people, in resource-based northern industries are employed temporarily, or for short periods of time, and there is a significant newcomer population.
- There is a rise of regional centres and resource towns.
- There is a remarkable social transformation of both indigenous and non-indigenous populations and the communities in which they live; this has an effect on their natural and social environment.

Alaska: North Slope-Prudhoe Bay

It was not until the Klondike gold rush in Canada's adjacent Yukon territory starting in 1896, that the United States federal government paid any attention to the possible riches that Alaska might harbour. Along with the gold rush came the influx of some 30,000 people travelling through Alaska to get to the Yukon. Other finds in Nome, Dawson, Ester, and Fairbanks, would lead to the creation and growth of those cities based on gold mining. Copper and gold would also be found and extracted. Roads and railroads were built so that these commodities could be exported.

The Katalla oil discovery was made in 1902, 177 kilometres southeast of Valdez. As the Alaskan economy developed, the US Congress granted Alaska territorial status on August 24, 1912, giving Alaska residents a say in the decision making process in the Alaskan Territory. Gold strikes in Alaska and the oil find near Valdez were small, the effects of which would be temporary, so, by the beginning of the Second World War, many prospectors were leaving in search of better economic opportunities. Largely as a result of the Japanese attacks on the Aleutian islands of Attu and Kiska during the Second World War, economic activity grew, along with the number of military personnel in Alaska. The US investment in the war effort in Alaska brought temporary stability to the economy as well as employment in the form of spinoff jobs. There was a recession in the Alaskan economy at the end of the Second World War, but it was short-lived; Cold War concerns gave way to population growth and economic development as the US government invested in defence spending. Instability in the Middle East led to explorations for possible oil reserves in Alaska; and, indeed, the purchase of leases by oil companies in the billions of acres led to oil finds in the Kenai Peninsula and Cook Inlet regions. These finds generated on- and off-shore oil and gas development, as well as the attendant infrastructure that went with it: processing, refining, and transportation. After this first successful and commercially viable find, oil and gas exploration continued space, and in 1968 there was a massive find in Prudhoe Bay, along the Beaufort Sea, in the North Slope region. This find had the potential to produce 10 billion barrels of oil, and made Alaska a very wealthy state within the year; the oil leases alone earned the state $900 million US in 1969. Five years later, the US Congress approved construction of the Trans-Alaska Pipeline System, which would transport oil from Prudhoe Bay eight hundred miles south to Valdez, on Prince William Sound. By June 20, 1977, oil was flowing through the pipeline 1292 kilometres from

north to south, transporting as much as two million barrels of oil per day to supply the demand for oil in the lower 48 US states.

The economic benefit of the Prudhoe Bay oil development has been tremendous. While Prudhoe Bay itself had an official population of only five people in 2014, there are many thousands of workers who live in the area temporarily in work-camps set up by the oil companies. While oil companies claim that the actual drilling for oil and gas only harms two per cent of the territory of the North Slope, damage is done to the sensitive permafrost wildlife habitat. Pollution is occasionally evident in the form of natural gas and debate continues amongst scientists as to the impact on caribou of the Trans-Alaska Pipeline System.

Early in the discovery of the enormous oil fields at Prudhoe Bay, students, indigenous peoples, and other concerned citizens protested against the development, calling for the state to consider the social and environmental effects that such a mega development would bring. At the 20th Alaska Science Conference, held at the University of Alaska Fairbanks in 1969, Alaska Federation of Natives (AFN) vice-president, and the only Aboriginal participant, John Borbridge Jr. forcefully put forth a rhetorical question:

> For the most part you have easily gotten used to the Alaska Native, because he had needed your help and your assistance, and a fairly large, complex "industry" has emerged based on his needs. The relationship between one who gives and one who receives when it has been institutionalized is very easy to accept, to adjust and to forget. As long as the arrangement is accepted or tolerated, there is nothing that is disconcerting in this relationship. But what happens as the Alaska Native assumes his rightful place as an equal partner in the economic, political and other power structures of this state? What happens when instead of coming in and asking for help, he comes in by right and asserts his right to share equally in the opportunities and benefits of economic and social development?

The events that led to the industrial oil and gas development in the North Slope region preceded the signing of the Alaska Native Claims Settlement Act (ANCSA) signed in 1971, but the actual development and the building of the Trans-Alaska Pipeline system could not take place until the Act was signed. This act extinguished Aboriginal claims to all-but one ninth of Alaska's land in return for $962.5 million in compensation. The Act created 13

Alaska Native (Aboriginal) for-profit corporations, making Alaska indigenous peoples shareholders in those corporations. At its inception, ANCSA was controversial since it and "cleared the way for development of Prudhoe Bay and the Trans-Alaska Pipeline, and the Act granted land and money to Alaska's Native people, and in return extinguished their aboriginal claims" (Arctic Slope Regional Corporation 1995).

Canada: the Northeast coal project- Tumbler Ridge

The building of the town of Tumbler Ridge is an example of a town in the Far North dependent on one resource industry. In the mid-1970s, the British Columbia provincial government engaged in the Northeast Coal Project (NECP), a megaproject that aimed to develop coal-mining operations in the northeast interior of British Columbia. In this way, the British Columbia government introduced industrial development to the region, which would include not just coal mining, but also the development of the infrastructure needed to transport the coal to a Pacific port. The result was the creation of a new town in 1981 – British Columbia's Tumbler Ridge, located on the eastern foothills of the Rocky Mountains. A railway line was upgraded and extended to Prince Rupert. The British Columbia government invested in this megaproject with the hope of coal prices rising to $100 per tonne by the end of the century. These hopes were dashed, however: by the early 1980s when the global economy was in recession and the demand for steel declined. As a result, the demand for coal also declined and so did coal prices, and in the end, Tumbler Ridge lost its only economic raison d'être. In short order, 600 miners, with their families, left Tumbler Ridge: by 2001, the population of Tumbler Ridge had declined from 3,775 in 1976 to 1,851.

The impact on the population in Tumbler Ridge and on the workers who earned their living from the mines was profound. At the same time, the environment in which the mines were excavated (using open-pit mining as the method of extracting coal) was damaged. In 1999, one of the operators was charged with polluting: an investigation by the BC Ministry of Environment, Lands and Parks revealed that waste had entered South Bullmoose Creek, threatening populations of trout.

Northern Europe: Norway's hydroelectric project – the Alta-Kautokeino case

In the middle of the nineteenth century, Norway's economy was based on combined agriculture and fishing. The economy was mostly localized in farms and villages. As Norway developed as a state, and as the economy gradually was industrialized, the Norwegian government made great strides in transforming the communications and transportations linkages between villages, towns and cities. Transport by sea was predominant. At the end of the nineteenth century and after, Norway's development and use of hydroelectric power generation grew significantly. One massive project was planned in Norway's northernmost county, in Finnmark – damming the Alta-Kautokeino river system. When it was being planned by the Norwegian Water Resources and Energy Directorate (NVE) in the mid-1950s, it had the potential of flooding a substantial part of the Finnmark mountain plateau, threatening salmon fisheries and reindeer herding, and displacing the people who lived there, including indigenous Sami communities. Even in the 1950s, damming the Alta-Kautokeino river system was controversial and, so, plans to build the dam were stalled. The NVE resurrected the plans in the 1970s, but with less ambitious goals. Still, a smaller-scale dam on the Alta River would have meant flooding the Sami village of Máze (also known as Masi), not to mention the flooding of reindeer pastures. As a result, the "Alta-conflict" arose between Sami organizations, the environmentalists, and local salmon fishers on one side and the Norwegian government and the NVE on the other. Protest were successful, and the village of Máze was spared flooding from hydroelectric development.

The Norwegian government and the NVE, however, did not give up plans for damming at least a small part of the Alta River. A third round of construction plans were drawn up. The Sami reindeer herders who would be affected by the dam, along with the Norwegian Society for the Conservation of Nature, took the Norwegian government to court in 1979. At the same time, the Sami and environmentalists protested, engaging in civil disobedience and setting up a Sami encampment in front of the Norwegian Parliament. The Sami garnered a great deal of public attention and sympathy during this period, educating the Norwegian public on their status and their political interests as the indigenous people of Norway.

The protests and lawsuits failed, and by the early 1980s a dam with a power station was built on one of the Alta River's canyons. Although the Sami and the environmentalists could not put a halt to the building of the dam and power station, many argue that it acted as a catalyst to the politicization of the Sami and laid the foundation for Sami-state relations in Norway, with the question of land rights being predominant. Subsequently, as a result of negotiations with the Sami, the Norwegian government agreed to the creation of a Sami parliament, and that Sami culture, language, and society should be recognized in the Norwegian constitution.

The Soviet Union/Russia: oil and gas in West-Siberia

Industrial development in Russia began in the nineteenth century with the building of a railroad from European Russia all the way to the Pacific Ocean, traversing across southern Siberia. The Imperial Russian regime was ousted by a Marxist-Leninist regime during the First World War in October 1917, ushering in a new political system and leading to the establishment of a new state in 1922, the Soviet Union. Most of the Soviet Union's population was agrarian and, so the most significant policies made in the early years of the Soviet Union related to collectivization of agriculture and massive industrialization. In order to carry out these policies, the Soviet Union required stable sources of energy. Despite the success of the oil and gas industry in the late 1920s and early 1930s, assisted by foreign investments and technology, the Soviet Union's major source of fuel at the start of the First Five-Year Plan in 1928 was still firewood, which comprised up to 50 per cent of the fuel used. This dependence on firewood continued until the Second World War and even after, but then dropped to about 10-15 per cent in the 1960s, with the development of other energy sources – such as coal and shale supplementing the energy needs of the industrializing Soviet Union.

At the time of Stalin's death in early 1953, the oil and gas reserves in northwest Siberia were still unknown. By the early 1960s, the outlook was quite different. Oil and gas development in northwest Siberia was embarked upon with great enthusiasm, with the implementation of Soviet policies to exploit lands that had not before been used for industrial development or resource extraction. Oil extraction began in Shaim on the river Konda, right in the middle of traditional Mansi territory. To accommodate the migration of new settlers as well as the passage of equipment for oil drilling and natural gas extraction, the regime subsequently ordered the construction of pipelines and railroads to carry oil to Perm and Tyumen. In the

Khanty-Mansiik Autonomous Okrug, the small villages of Samotlor and Surgut "became centres of intensive oil-drilling operations" (Forsyth 1992:390); and, in the late 1970s, Urengoi and Yambur, in the Yamalo-Nenetsky Autonomous Okrug, were centres for massive gas production. The effects of oil and gas exploration and extraction were a steady decline in the standards of living and health, and a decline in the retention of language, culture, and the traditional economies of indigenous peoples in the impacted areas. Concurrent with and exacerbating this decline is the degradation of the environment on which these indigenous peoples depend for their economic livelihood, their food, their cultural and spiritual activities, and the maintenance of their traditions. The immeasurable damage such projects have done to the environment and traditional territories of the indigenous peoples who inhabit northwest Siberia is obvious. Oil spills, gas-field fires, abandoned and rusting equipment littering the tundra and taiga, the irreparably scored permafrost and damaged lichen fields are just a few examples. While indigenous politicization in the whole of Russia has given Aboriginal people a voice at all levels of government, indigenous populations whose traditional territories are at the centre of resource reserves, such as oil and gas, find their voices diminished in their calls for a say in how industrial development is managed and how their environment is protected – and when they put forward demands for compensation.

Indeed, by the late 1980s, the northwest Siberian plains – that is, the traditional territories of the Khanty, Mansi, Yamalo-Nenets, and several other indigenous peoples – were in peril. The destruction and environmental pollution in the region are of massive proportions. By the early 1990s, the press in the Soviet Union and later the Russian Republic candidly reported on the pollution that indigenous peoples bitterly complained about. Cities and industrial enterprises dumped huge quantities of heavy metals and sewage into the rivers Ob and Irtysh in northwest Siberia. Stocks of various fish on which indigenous peoples of the Berezovskii region rely had diminished in numbers from twenty to one hundred times in the period since oil and gas development began in the early 1960s. Intense exploration and widespread prospecting for oil and gas reserves have resulted in the pollution of rivers, river basins, and lakes, putting into jeopardy fish-processing operations. In addition, the frequent occurrences of catastrophic gas-field fires resulting from processing activity destroyed and continue to destroy grazing and pasture lands of reindeer herds and forests inhabited by wild animals.

Massive industrialization projects in the North tend to have lasting effects on the environment, and obviously not only in Siberia. Flooding of sensitive territories by the

hydroelectric dams in northern Norway has a devastating impact on the local environment. Mining activities from the open-pit mines in the northeast interior of British Columbia polluted the water. All of these environmental concerns have had an impact on both the wildlife habitat and the living spaces of indigenous and non-indigenous population. Moreover, as we have seen with the example of the Prudhoe Bay oil and gas development in the United States, the coal project in Canada, Norway and Sweden's hydroelectric and mining projects; and the oil and gas industries in northwest Russia, a heavy reliance on primary resources leads to a vulnerability to boom and bust fluctuations in the economy, domestically and internationally. This is most acutely exemplified in the Prudhoe Bay development and in the coal project, as world market prices have a great impact on the profitability of the primary resource being extracted and processed. It is evident from above outlined examples that the development of primary resources means a dependency on the world market, even if it seems that these industries are located in remote regions.

Particularly in the oil and gas development cases in Alaska and Siberia, the bulk of the monetary profits earned in the development of these hinterland regions usually went to the oil and gas companies and to the various levels of government. In Russia residents who live closest to the oil and gas producing regions often complain that they are the last to benefit from the oil and gas profits being taken from their territories. Many indigenous Khanty, Mansi, and Yamalo-Nenets, for example, have low standards of living because of unemployment and under-employment, and yet, all around them, on their traditional territories, are the major sources of the Russian state's revenues. Likewise, the Inupiat, whose traditional territory encompasses the Prudhoe Bay oil and gas fields, have little say in the management of profits garnered by oil and gas companies and the State of Alaska.

Resource and industrial development in the North is also characterized by population growth through migration. Many of the workers who are employed in the megaprojects are employed temporarily, especially in the larger construction projects, such as the building of hydroelectric dams. The example of oil and gas extraction on the North Slope of Alaska illustrates that Prudhoe Bay has a transient and impermanent population that moves in and out of the oil fields to work there. Once the economic reasons for employment fails, or is downscaled, people tend to move out in search of alternative employment possibilities, as we have seen in the Tumbler Ridge case. The social effects on non-indigenous populations are significant and should not be forgotten, as families and workers are uprooted and displaced

and forced to resettle elsewhere in search of viable employment because of a downturn in the economy. On the other hand, projects that led to long-term employment situations require a significant newcomer population that generally overwhelms the existing population prior to industrial development. In the Soviet Union and later on Russia, the imbalance caused by the number of newcomers compared with the indigenous peoples who live in these resource-rich hinterland regions has led to problems of political representation, as the Slavic European population's interests supersede those of the indigenous peoples. The influx of newcomers in Siberia has also led to the growth of large cities such as Surgut and Novy Urengoi on what were once traditional territories of Aboriginal peoples.

Whether northern industrial megaprojects have an effect on indigenous or non-indigenous populations, on northern and national economies, or on the environment, it is a fact that decisions regarding industrial development in these regions are made far away: in Washington D.C., for Alaska; in Victoria for Tumbler Ridge; in Christiana (later Oslo) for Norway; and in Moscow for Siberia. As each of these cases discussed in this module illustrates, massive industrial development is still bound up with interests and concerns of the secondary societies rather than the indigenous peoples. The non-indigenous populations are also those who are largely unaffected by the social and environmental effects of these industrialization projects, but who most definitely benefit from the development of these regions. While the range of political and economic systems extant in these examples vary from one another – democracy, communism, social democracy, capitalism, and mixed economies – the effects on indigenous and non-indigenous populations have been similar in scope and in intensity.

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Glossary of terms

All-Union Central Political Administrative Board	founded in 1923 to replace the Extra-ordinary Committee on struggle against counter-revolution. In 1934, all functions of the All-Union Central Political Administrative Board were transferred to the People's Commissariat for Internal Affairs.
Autarky	**1** self-sufficiency, esp. as an economic system. **2** a state etc. run according to such a system.
the Barrens	(also barrens, Barren Grounds, Barren Lands) *Cdn* the treeless, sparsely populated region of northern Canada, lying between Hudson Bay and Great Slave and Great Bear lakes.
Caribou Inuit	an inland Inuit people formerly inhabiting the Barrens and relying almost entirely on caribou for food and clothing.
collectivize	**1** organize on the basis of collective ownership. **2** the process of combining labour implements, material, and financial means, as well as the working power of individual peasants who are part of different types of communities (e.g., Tovarischestvo, Artel). The final result of collective labour and all property of collective farms were under control of and used for the interests of the State.
Dene	a member of a group of Aboriginal peoples of the Athapaskan linguistic family, living esp. in the Canadian north. (from the Chipewyan *dene*, meaning person).
kulak	a Soviet ideological term designating a prosperous well-to-do-person. Originally this term was applied to those who exploited the labour of other people; later, it included all whose property status was above poverty.
nomadic way of life	the traditional way of migration within a certain area. Routes and speed of movement depend on current environmental conditions and availability of bio-resources.
quaternary	quaternary economic development include economic activities that disseminate, process, and administer information, and is not reliant on resources, the environment, or access to markets.
relocation	a movement of a group of people that is planned and sometimes enforced by an outside agency. Relocation has been used by outside agencies to bring about centralization and concentration, as in the numerous cases where smaller settlements were closed and their population transferred to larger centres.
solvent	*adjective* having enough money to meet one's liabilities.
Soviet	*Noun* **1** a citizen of the former Soviet Union. **2** (soviet) an elected local, district, or national council in the former Soviet Union with legislative and executive functions. **3** (soviet) a revolutionary council of workers, peasants, etc. before 1917. *adjective* of or concerning the former Soviet Union or its people.
tertiary activities	those economic activities that maintain primary economic activities. They revolve around the organization of production, the logistics of distribution and marketing, the maintenance of equipment, and the consumption of goods and services.
transition to settled way	refers to the policy of forced transition of nomadic peoples to

of life	settled way of life: however, reindeer breeders, hunters, and fisherman could not live in villages and towns and leave their traditional occupations. Therefore, women, children, and older men were the first to settle in the new villages. In this way, the indigenous family and generational ties were lost.

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