Overview

Economic forces play a significant role in today’s northern economies and have shaped northern lives from a time when subsistence activities predominated. Today, globalization is bringing much focus to the vast renewable and non-renewable resources in the North including wildlife, fisheries and oceans, and mineral, oil and gas development. This module examines how economic activity is changing as a result of climate change, and how the contemporary economy is juxtaposed with the traditional subsistence economy. In both cases, social wellbeing is dependent upon renewable and non-renewable resources, and is governed by policy that defines how these resources are used.

Learning Objectives

Upon completion of this module, you will be able to:

1. Identify the effects of climate on economic opportunities.
2. Describe the key characteristics of contemporary traditional, non-market Indigenous economies.
3. Evaluate the importance of the Circumpolar North economy from a global perspective, with particular focus on the renewable and non-renewable resources in the northern regions.
4. Classify the processes of economic contacts between market-oriented economies and indigenous economies.
5. Compare and contrast non-renewable and renewable resource-based industries in sustainable and unsustainable development in the Circumpolar North.
6. Explain the impact of external forces in different types of development in the Circumpolar North.

Required Readings

Key Terms and Concepts

- Command economy
- Communal property rights
- Economic inequality
- Gross Domestic Product (GDP)
- Market economy
- Mixed economy
- Non-market values
- Property rights
- Scarcity
- Subsistence economy
- Traditional economy
- Transfer payments
- Wage economy

Learning Material

5.1 Northern Climates and Economic Opportunities

Consider the subarctic boreal forest in Canada (Figure 1). This place, and many others around the Circumpolar North, are defined by a unique and harsh climate that has had a profound and determining effect on the nature of economic development in this part of the world. In most other regions around the globe, the economic history of humankind has involved the transition from hunting-and-gathering societies, with very low population densities, to agricultural societies. Agriculture produced an economic surplus, which, in turn, permitted larger populations and increasingly complex social organizations to develop. Later still, industrial economies developed, along with complex divisions of labour, the organization of market economies, and the refinement and development of legal systems based on private ownership of goods and the means of production. In the past twenty-five years or so, we have seen the emergence of what has been called a “post-industrial,” or information-based economy, that links most markets around the world into the global marketplace.

Indigenous populations of the Arctic and boreal forest regions that make up the Circumpolar North did not have the soils, the growing seasons, or the temperatures, for agriculture to
flourish. This simple fact shaped the economic reality of the region for thousands of years. At the same time, human societies have also existed in the northern regions for thousands of years. Subsistence was drawn from the resources at hand: the sea provided fish; the forests and northern plains provided caribou, reindeer, and other large and small forest animals. Humans developed successful economies based on these local resources to secure survival.

5.2 Contemporary Traditional, Non-Market Indigenous Economies

Economies can be organized in different ways and evolve over time. While the traditional economy was successful under northern conditions, it was significantly different. Such traditional economies developed non-market institutional arrangements that were quite different from the market or command economies that would ultimately penetrate the northern regions, especially in the twentieth century. In all northern regions then, the dominant reality shaping current economic circumstances, opportunities, and constraints has been the penetration of relatively technologically advanced market economies. Similarly, in the case of the USSR between 1917 and 1994, the constraint was a technologically advanced Communist, or command economy. This penetration has, sometimes by accident and sometimes by design, destroyed many of the traditional economies. In particular, the unique resource base that traditional economies depended on for survival has seldom survived intact. This fact alone means that economic survival and success for the regions’ original inhabitants depends on their success at adapting to the market economies and market forces that have penetrated from the south.

Figure 2. Sámi Reindeer in Sweden.

Source: Hayley Hessel, University of Saskatchewan, Canada. Posted with permission.

Individuals within the traditional economies were at once attracted by the new goods and services that the newcomers brought, including rifles, new medicines, snow machines and alcohol, but found that the resource base upon which the traditional economy depended would not survive the inroads, often in a literal sense, made by the newcomers. The caribou that the Dené depended on faced the same fate as the reindeer herds of the Sámi (Figure 2); both were drastically reduced in number, forcing entire previously independent communities into welfare dependence on southern societies. The clash and interplay of these two economic systems
then, has dominated the economies of the Circumpolar region for the past hundred and fifty years or more.

These hunting and gathering, or traditional economies, were usually small, with low population densities. Hunting, fishing, plant gathering, and reindeer herding required that the populations adopt nomadic or semi-nomadic patterns, as entire communities would relocate to follow or anticipate the main food supply. The animals that sustained these societies provided for virtually all the needs of the community: meat for food, skins and bones for shelter and simple tools. From the Sámi in northern Scandinavia and north-western Russia, to the Inuit, Dené and Athabaskans in Nunavut, the Northwest Territories, the Yukon and Alaska, to the over thirty other distinct Indigenous peoples across the contemporary Russian Federation, came remarkably similar economic structures. These structures were dictated by the physical realities of the environment that these communities shared.

These economies were based primarily on renewable natural resources. Production was largely for home consumption. Market activity was very limited and tended to exist only at the physical boundaries between communities: a fishing community living by a river would trade occasionally with hunting groups that happened by during their annual migrations.

Population was limited by the size of the resource base. At the boundaries between communities there were opportunities for intermarriage, sporadic commodity exchange, and occasional conflict. Such communities often lived at the edge of subsistence; if caribou or reindeer herds diminished for whatever reason, the impact on the human societies depending upon these resources could be devastating and swift. It was usually, however, short-lived.

There is little evidence that currency ever played a significant role in the traditional communities, prior to their contact with traders from afar. Metal coins were heavy and not of immediate use before more frequent and reliable contact with traders. Indeed, the absence of currency that we find in the early contact periods is another indication that markets had not penetrated widely or deeply into these societies.

Nor had the notion of private property, that fundamental building block of western market economies, taken hold. Traditional economies take a communal, collectivist approach to land and other property. In harsh environments, where communities were often at the edge of survival, compulsory sharing was a reasonable and successful survival mechanism. There was little surplus to go around in any event, so there was little property to accumulate. This is true of the land and resources as well. Because there was sufficient abundance of land and resources such as fish (Figure 3) and caribou, it was not necessary to own such resources, and long-term sustainability was not considered in the same context as it is today.

Figure 3: Dried Cod.
Source: Hayley Hesseln, University of Saskatchewan, Canada. Posted with permission.
Indeed, the very idea of the private ownership of land was seen as a kind of curious arrogance by many northern Indigenous peoples. Land holds a central place in the culture and society of Native communities. Land, oceans, lakes and rivers contained and supported the resources that supported the various communities. As such, those natural resources “belonged,” if they belonged to anyone at all, to the entire community, to ensure that the needed resources would be there for future generations of the community. This thinking persists. Thomas Berger quoted, in Northern Frontier, Northern Homeland (1997) (see below, “North Meets South”), Bertram Pokiak of Tuktoyaktuk, who, worked as a trapper in the 1930s. Pokiak explained to the Inquiry that,

“I never make a big trapper. I just get enough for my own use the coming year. Next year the animals are going to be there anyway, that's my bank. The same way all over where I travelled. Some people said to me, ‘Why you don't put money in the bank and save it for future? I should have told him that time, ‘The North is my bank.' But I never did. I just thought of it lately” (94).

An overriding economic reality of this North-South divide is that of substantial economic inequality. Northern Indigenous incomes are lower, educational attainment is lower, and unemployment is higher than is the case for non-Indigenous people, from both the South and the North. Similarly, Indigenous people suffer poorer health, and their communities are more ravaged by the effects of alcoholism, drug abuse, and family abuse. This might be partly a result of the dependence on outsiders for economic support and the difficulty in merging traditional northern economies with market-based economies such that communities become economically sustainable. These are some of the difficult economic challenges Indigenous and southern politicians face today.

Much of the conflict between those representing the market economies of the South as they headed north seeking the resources that were buried deep in traditional lands, and the traditional societies, emerged as conflict around these completely different approaches to land, wealth, and capital. We will examine this “story” in more detail, drawing on the history of the Inuit of the Northwest Territories and Nunavut, in Canada primarily, but also touching on experiences elsewhere in the Circumpolar North.

5.3 The Global Perspective on the Northern Economy

The title of Thomas Berger’s well-known 1977 study of northern development in Canada is Northern Frontier, Northern Homeland. This title captures the idea that, while the North was the wild and unknown frontier, to the Indigenous peoples who lived there, this was their home. These were not empty lands to be conquered, but rather home to many hunting, gathering, fishing, and herding societies that had survived for thousands of years.

To the southerners who arrived in the North, it was the frontier, the edges of civilization, and a hostile frontier at that. It was, to a great extent, viewed as an obstacle to be overcome in order to tap into the natural-resource wealth greatly demanded in southern markets. Robert Service, a poet whose verse helped to make the Klondike gold rush famous, wrote in The Spell of the Yukon “I wanted the gold, and I sought it; / I scrabbled and mucked like a slave.” The miner of the poem discovers that the search for the gold was more important to him than the gold itself, but his search was undertaken in “. . . a land where the mountains are nameless,” in a land with “valleys unpeopled,” a “great, big, broad land ‘way up yonder . . . .”
The initial meeting of traditional with market economies was not terribly disruptive. Whalers and fur traders began by establishing only small trading centres. There was no large influx of people. The whaling ships and the fur trading posts brought new goods to the peoples of the region; new metal tools, guns, clothing and textiles. These goods were much in demand and the Inuit, for example, were able to acquire such goods by trade because of the demand for local products: primarily furs and ivory.

This early economic contact did not fundamentally alter the traditional economy. The physical penetration of the southern economy at this point was very modest, and the communities continued to hunt and fish mainly to meet their subsistence needs. Southerners were generally content to respect the subsistence economies and communal property rights of the Indigenous societies.

Figure 4: Klondike route maps.
The discovery of gold in the Yukon and Alaska (Figure 4) marked the beginning of a long process of increasing and relentless southern involvement in the lands that the traditional economies depended upon. Sometimes by design, but more often by accident, this involvement eventually destroyed the self-sufficiency of traditional economies. Those who participated in the traditional economies, and their descendants, were forced to make accommodations with the southern economic migrants and their different and confusing institutions in order to survive. The economic story of northern development over the past century has largely been a story of the ebbs and flows of this accommodation.

The southern intruders, both individual and corporate, wished to see their own market-oriented, private-property-respecting institutions replace the traditional institutions. Only with such institutions it was argued, could the wealth of the region be effectively exploited. Thomas Berger (1977) noted that the southern intruders “have always undervalued northern native culture, and have tended to underestimate the vitality of the native economy” (p100). He says, a bit later, “the native economy exists out of the sight of white people: out of sight, out of mind” (p101). This invisibility is, in part, caused by the fact that “the true extent of the native economy is difficult to measure” (p101).

In Alaska, for example, Indigenous peoples now make up less than 20 per cent of the state’s population, but prior to the gold rush they constituted the majority. The accurately named “gold rush” was exactly that; thousands of prospectors left home and hearth in the South to pan the northern creeks and rivers of the Yukon and Alaska for gold. Many did not find gold, and left broke and disappointed. Others were attracted to the frontier and remained. Logging and forestry was to prove a more durable industry than gold mining.

The new migrants brought with them a desire for their own economic institutions, especially their private property laws. The notion of collective ownership of land or other valuable resources was foreign and unacceptable to these newcomers. Collective ownership was seen as an impediment to economic development because it created potentially dangerous uncertainty about what rights and responsibilities applied to lands and resources.

5.4 Market Economies Meet Traditional Economies

Resources or property can be held in four forms: private property, public property, common property, and open access. Private property means that resources are owned and managed privately where the owner has full rights and responsibilities. This includes being able to sell the resource and to control who can use it and benefit from it. Public property means that the government owns the resource and has full decision making authority. Additionally, the government can grant access to individuals to use resources. This occurs today with respect to wildlife – it is owned and managed by federal, provincial or territorial governments, who then grant hunting rights to individuals.
Common property and open access are sometimes the same, depending on the size of the “commons.” Common property conveys rights and responsibilities to a common group such as a First Nations community. Open access, on the other hand, provides full access to everyone and anyone. When the number of people using the resource is relatively small, there tend to be enough resources to satisfy all wants and needs. When demand rises, however, scarcity often occurs meaning that there is not enough of a resource to satisfy all wants and needs. Slowly at first, valuable non-renewable natural resources were discovered in Alaska, the Yukon, and the Northwest Territories. Typically, the migrants brought their own institutions, ideologies based on their cultures. In Canada, three of these institutions included Church missions, the North-West Mounted Police detachments (Royal Canadian Mounted Police after 1925), and Hudson’s Bay Company trading posts (Figure 5).

Oil was discovered at Norman Wells, Northwest Territories (NWT) in the 1920s, gold at Yellowknife, NWT, in the 1930s, and fairly quickly thereafter, copper, lead, zinc, and other natural resources were located throughout the Canadian North. These industries did not grow naturally from the local economy; they emerged as a result of decisions taken by large, capital-rich firms headquartered in the South. They appeared as a series of invasions: invasions of capital, technology, management, and even of hired labour, most of which came from the South.

In Canada, federal and territorial governments were also closely involved in economic incursions. As almost all initiatives involved non-renewable resources that were owned, according to legal tradition, by the federal government; royalty agreements and government approvals were needed at every step of the way. Roads also had to be cut through the territories to connect the resource deposits with markets.
The Second World War, the threat of Japanese invasion of Alaska, and the building of the Alaska Highway from Dawson Creek in northern British Columbia to Tok, Alaska, dramatically accelerated this process. The road, and related feeder roads, permitted more resource exploration and development. This “paved the way” for significant post-war immigration to service resource industries.

Where roads and migrants appeared, the hunting and fishing economy inevitably fell into a downward spiral. The populations of caribou and other subsistence animals fell. High prices for pelts (Howe and Stabler 1989) drew unsustainable increases in supply from both Native and non-Native hunters. The collapse of caribou herds began in the 1930s and continued until well into the 1950s. This collapse led to the emergence of local famines where entire populations literally starved to death. Canadian writer Farley Mowat (1952) was reporting cases of starvation in the Barrenlands of southern Nunavut in the 1950s to a somewhat incredulous southern audience.

Two fundamental economic issues can be used to explain the source of the situation. They are scarcity and property rights. First, because the subsistence economy supported a small population, there was no scarcity of resources; that is to say, there were enough animals to satisfy all wants and needs. Growing human populations as a result of in migration put pressure on the animal populations causing them to decline to the point where they could not reproduce rapidly enough to support increasing human demands. This same phenomenon occurred in the South across the Great Plains when human pressures nearly drove bison to extinction.

Scarcity, however, is not enough to explain why populations starved. To understand the full story we need to understand the interplay between scarcity and property rights or tenure. Wildlife in the north during the early 1900s, although federally owned and therefore public property, was treated as open access. Everyone had rights to hunt and use the animal resources, and because of this, there was no incentive to manage the resources sustainably. If, for example, a community practiced animal husbandry with caribou, they could not be guaranteed future benefits of those herds because the resource migrated and was, in effect, open access or available to anyone wishing to hunt. These two factors – open access and the lack of private property rights – led to scarcity and a significant decline in animal resources. Garret Hardin (1968) explains this idea fully in his paper *Tragedy of the Commons*.

As game became ever more scarce, increasingly more Native communities made the decision to relocate to those centres along the roads where the few stores, government offices, RCMP stations, and missionary or government schools were located. This was often the only way to be able to collect the various government resources that were available to tide families over during periods of hardship. The decline of the herds, however, meant that the days of self-sufficient hunting, gathering and fishing communities were over. There were no herds to go back to. Inuit migrated into more-or-less permanent settlements near the closest Hudson’s Bay Company posts.

At the end of the Second World War, the Canadian government began to take some notice of its northern residents. In the 1950s and 1960s the federal government became increasingly concerned about the poor educational

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**Learning Activity 1**

Watch the following video clip that illustrates what is happening to fish populations.

[http://www.youtube.com/watch?v=_npPbY2YvpC](http://www.youtube.com/watch?v=_npPbY2YvpC)

Discuss the role of property rights in sustainably managing fisheries.
and health facilities in the North compared to what were available in the South. If the traditional economy could no longer support the Indigenous peoples, society reasoned that the government could provide for their future in the wage economy. Programs would be developed to support access to the health, income subsidization, and particularly, educational services. Assimilation became the philosophy of the day. If traditional economies could no longer support Indigenous peoples, then they must be assisted in making the difficult transition to the wage or market economy.

In the first two decades after the war there was a tremendous expansion of the Canadian governmental presence in the NWT (which included the contemporary Nunavut Territory) and the Yukon (Figure 6). Hospitals were established or expanded, and an all-out attack was launched on tuberculosis. The Canadian government began to provide transfer payments in the form of Family Allowance, Old Age Security, and disability payments and other forms of income support.

Education was seen as the key to preparing individuals for the inevitable transition to the market economy. But most households had adopted the strategy of keeping one foot in the traditional hunting and fishing economy and one foot in the town. Families would live in town during part of the year, as this was required to be eligible for government support, health care and education. The family would devote part of the year, however, to hunting, fishing or trapping, and be away from the community. In the USSR, schooling had a political dimension: the Indigenous peoples needed to be taught Russian, the common language of the Soviet Union. Their traditional languages had no writing systems, so developing them was an initial priority. The system was similar, especially after the introduction of the collective and state farms. Women and children stayed in the communities to work and go to school, while the men worked as herders or hunters and trappers for the state farms.

This pattern of life made it difficult to arrange for schooling. In Canada, the federal government has responsibility for the education of people defined as “Indians” under the Indian Act. In the early years of the 20th century, that responsibility had been contracted to the various religious groups operating in the North. Day schools and mobile classrooms were tried but they did not work very well. In time, denominational residential schools were established with government funding as the surest way of providing education to Indigenous children. The parents could leave on their hunting or trapping expeditions, but the children would stay at the school. An added benefit, according to the thinking of the time, is that this would allow the teachers to “wean” the children away from the old ways to better prepare them for the market economy. After World War II, increasing government pressure was placed on parents to ensure that their children were enrolled in the residential schools. In some instances, Family Allowance or other support payments were withheld. In addition, parents, seeing that their old way of life was no longer viable, and pushed along by often unsympathetic government officials, most often acquiesced.

It is now widely recognized that this school system had traumatic effects on the children and their families. Children were removed from their parents for long periods, and failed to learn the skills and traditions that were valued within the family. Racism played a role in the failure. Graduates of the schools were not welcomed into the wage economy, causing a great many of them to be underemployed. They lacked the traditional skills to return to their traditional lives.

Learning Activity 2

“Nunavut” means “our land” in Inuktitut, the Inuit language.

Research the establishment of Canada’s Nunavut Territory in 1999.
and lacking these skills, many were unattractive marriage partners. Canada is not the only place in the Circumpolar North to experience these results of well-meant education programs. This approach to northern Indigenous peoples was tried in very similar ways in every country of the Circumpolar North that has Indigenous peoples. Nowhere, except perhaps in the USSR, was it particularly successful (for a fuller discussion of the Soviet education program in the North, see Bartels and Bartels 1995).

What gradually emerged was a mixed economy that replaced the traditional, self-sufficient economy. Government transfer payments could account for up to fifty per cent of cash income in many communities, and still do. Indigenous families participated in at least three distinct economies - they continued to hunt and fish to provide for some of the needs of the family, but this was supplemented by selling pelts, and relying on government welfare and other transfer payments. The relative importance of these three legs of the mixed economy could vary from year to year and from region to region.

There was, until very recently, little Indigenous participation in the limited local wage economy. Indigenous peoples usually did not have enough formal education or the English language skills to secure employment. Modern resource exploration activities were exceptionally capital intensive, in any event, and generated few jobs. Currently, many industries, such as the mining companies, are in partnership with Indigenous peoples and provincial and territorial governments to provide training and skills to meet federal mandates to hire a majority of Indigenous peoples.

The transition from the traditional economy to this mixed economy was also accompanied by much social disintegration. Hunters were no longer able to provide for their families, and welfare dependence was a prevalent reality for many. As families moved to communities in order to receive government transfer payments and services, the game resources in the immediate area were quickly reduced. This, of course, increased reliance on government transfer payments. Alcohol and drug abuse and family violence all reached disturbing levels.

By the end of the twentieth century, the traditional economies in the Canadian North had been decimated in all but the most remote regions. The traditional economies had been replaced by a mixed economy that combined some aspects of production for own consumption from the traditional economy, with market sales of some goods, and government transfer payments.

5.5 Renewable and Non-Renewable Resource-Based Industries

Economic development remained largely determined by external factors. The demand for oil, gas, copper, silver, lead, zinc, diamonds, gold, etc., determined the pattern of private sector investment. The key sectors of the formal economy also remain controlled by outsiders, such as the large multinational firms with regional or corporate headquarters in southern Canada or the US. The economy of the region, therefore, follows the boom-and-bust cycle common to natural resource industries. The industry that does exist, other than local services, is capital intensive; the management, technology, and capital all come from outside the region. There is virtually no manufacturing. Local economic linkages are weak or non-existent. This is not surprising given the size of populations in the North, and the markets into which these resources are sold. Because the majority of people who will use oil and gas, and precious metals is concentrated in the south, it is much more efficient to ship raw materials from the north and manufacture them close to where they will be sold. Shipping finished products is typically more expensive because they are more valuable; therefore, most resources are not processed where they are mined or gathered.
While populations in the North are sparse, economic development often results in significant debate and tradeoffs that must be considered. There are many examples of controversy surrounding oil and gas development projects such as the pipeline running through the Mackenzie Valley in Canada, oil drilling in Alaska’s Arctic National Wildlife Refuge (ANWR), and competing interests between reindeer breeders and oil companies on Russia’s Rybachy Peninsula in northwest Russia near Murmansk. In each case, the promise of wealth from mining natural resources is pitted against traditional ways of life, such as reindeer husbandry, and environmental sustainability, the latter of which are often difficult to assign an economic value. With respect to environmental sustainability, the net social value of oil and gas, and related pipeline projects should take into consideration the effects on displaced communities and wildlife, irreversible changes to habitat, and long-term effects related to transportation corridors and climate change. Often, economic statistics and formal government accounts do not consider these non-market values in spite of their importance.

Notwithstanding, the Arctic Human Development Report (2004) provides a good synopsis of the variety of economic systems as they are used today. This includes the predominance of large resource exploitation operations as juxtaposed with family-based economic activities such as hunting and fishing, and the role of the service industry. Since the economies of the north have moved away from being largely subsistence-based, they have taken on a role of global importance. In 2003, all production created in the formal economy amounted to over $225 billion (Duhaime and Caron 2006). This amount is known as Gross Domestic Product or GDP, which accounts for the value of all production and spending in an economy. To put the relative size of the economy into perspective, we can compare, for example, GDP per person in the Arctic ($22,700) with GDP per person in Bangladesh (less than $2,000). The meaning of this measure shows the total production spread over a nation’s population. In the example, the value of goods produced in the Arctic, when spread over the population, is relatively high compared to that of Bangladesh.

You’ll note in the statistics on many web sites, and in much of the published information pertaining to economies that some values are measured as “USD-PPP." The term “PPP" means “purchasing power parity" and is simply a way of measuring the value of a nation’s goods and services measured in US prices. The reason for making this comparison is to be able to compare values of goods across countries and currencies. For example, how can we compare the value of producing a 500 ml bottle of Coca Cola™ that sells for $1.75 in Canada with one that sells for 9 NOK in Norway? The easiest way to compare values is to measure production using only one currency.

The most recent statistics for the Arctic countries reflect 2005 values of Gross Regional Product (GRP) per capita in US dollars adjusted by PPP to reflect US prices as a means of comparison. Only the figure for Iceland reflects Arctic values fully. The other seven countries show values for the north and the country as a whole (see Figure 6).

1 An important source for economic statistics is ArcticStat. You can access this site at: www.arcticstat.org. Another good source for economic data is the World Bank at www.worldbank.org.
Although the Arctic is rich in natural resources, particularly oil, gas and minerals, much of the wealth does not remain in the Arctic. Often, large resource exploitation companies are headquartered in the southern reaches of a country, or in another country entirely, also giving rise to development controversy. Such companies also import skilled labour thereby surpassing local employees. When this occurs, not only is the product exported but also the wages that would otherwise be spent in the local communities. Furthermore, such extractive industries often produce waste or interrupt local use of the land causing economic loss in the form of externalities. An externality is a cost (or benefit) that accrues to a person without that person being part of the decision-making process. For these reasons, it is important that local and regional governments work to overcome the negative effects of development to the welfare of local communities.

Similarly, while there is not much manufacturing, the service sector is another important contributor to the northern economy. Services surrounding the tourism industry (hoteliers, restaurants, outfitters), retail and transportation are growing as economic development continues in the resources sectors. However, government remains the major economic participant in the northern economy. It is responsible for one of the three legs of the economy, the income transfer system; it manages the educational and health care systems; and regulates many aspects of resource development. Duhaime (2004) reports that public services are the second largest industry in the Arctic representing 20 to 25% of GDP, and as much as 40% in Canada and Fennoscandia.

The Arctic has undergone, and continues to undergo significant economic development, some of which has produced negative externalities related to the land and communities, but some of which has been positive (new opportunities and renewed interest in Arctic regions). It will be
important for future generations to understand fully the effects of economic development and how different governance models and property rights regimes best serve society.

Benefit Sharing Agreements

In the process of developing economies in the north, some Indigenous communities have come to embrace property rights by securing title to some lands and to use this to alter their participation in the modern economy. In Alaska, for example, the Alaska Native Claims Settlement Act (1971) redefined relations between Indigenous communities and the State. This act created twelve regional for-profit corporations with both surface and subsurface rights to some 180,000 square kilometres. A thirteenth corporation exists for beneficiaries who do not live in Alaska. In each of the regions, village corporations were created to hold rights to local land. In addition, the Indigenous communities received nearly $1 billion US in compensation for land and other indigenous rights ceded.

Large development projects, or the promise of such projects, have often spurred governments to attempt to reach a satisfactory conclusion of the Indigenous land claims issue. In the 1970s, for example, the oil and gas industry was keen on developing the natural gas resources of the Mackenzie River delta. The Dené and Gwich’in communities in the region opposed the proposal on the grounds that they would not benefit from the development, that development would interfere with their traditional use of the land, and that there were no treaties for much of the land the pipeline would cross. The British Royal Proclamation of 1763 made it mandatory that the Canadian government seek a treaty with Indigenous peoples in advance of any non-Indigenous use of the land.

There had been non-indigenous use of the land for centuries in the Canadian North, but treaties had been limited to the upper Mackenzie River and the southwest corner of the NWT. A modern-day treaty would require extensive negotiations with several different northern Indigenous groups. Berger ultimately recommended that the proposal to build the pipeline be shelved for a minimum of ten years, so land claims could be settled. The project was abandoned until recently.

The pipeline idea has been resurrected, and the peoples of the Mackenzie Valley have treaties that give them much greater control over the nature and shape of new development. Most of the Indigenous communities support the project, and Indigenous co-ownership is a key consideration of the proposal. The Aboriginal Pipeline Group (APG) signed an agreement with Imperial Oil, Shell, Exxon and the other major oil companies that will see APG own up to one-third of the entire project. Indigenous communities are now taking an ownership stake in the market economy.

5.6 External Forces of Development in the Circumpolar North

This approach to land claims contrasts sharply with the almost complete absence of recognized community land rights for the Sámi in Scandinavia. The Sámi peoples of Scandinavia had developed an economy based on reindeer husbandry. These peoples were migratory and followed the herds across what are now national borders. They came into significant contact, and conflict, with their southern neighbours much earlier than the Inuit of Canada. From the
beginning, Scandinavian authorities regarded these communities as “minorities,” but not indigenous communities with existing indigenous title to land.

In Sweden, settlement in Sámi regions was encouraged by the state as early as the seventeenth century, with predictable results. Reindeer herds declined, along with the small game animals that the Sámi had depended on. The absence of land titles, combined with the reduction in herds has resulted in many Sámi assimilating into wider society over the past century.

In Norway, similar policies of assimilation were followed and laws were passed that limited private ownership of land to those who could read, write and speak Norwegian. Children were also taken from parents and placed in boarding schools to gain a traditional western education and to encourage a break with traditional society and its subsistence economy.

The experience of the Indigenous populations of the North in what was the Soviet Union was oddly similar to that of their fellows facing a transition to a market capital-intensive market economy in North America and Scandinavia. The Soviet leaders saw little of benefit in traditional economies, despite the reality that common ownership of the means of production was generally the rule. The Soviets, after all, had their own somewhat centralized system of state control and also forced resettlement of entire populations.

There was little opportunity for the indigenous voice to be heard prior to the collapse of the Soviet system in the ‘90s. In 1990, however, the 1st International Congress of the Small Numbered Peoples of the Russian North was convened to press for greater local involvement on the part of the indigenous peoples of the North in the important decisions that would affect their economic and political future. This led to the creation of efforts to press for indigenous land rights, self government, and greater indigenous control over resource development and the formation of the very active Russian Association Indigenous Peoples of the North (RAIPON).

Since the collapse of the Soviet Union, Russia has moved toward a liberalized market economy whereby the government started to privatize state property, attract foreign investment, deregulate industry, and focus on moving from domestic to international trade. Although there have been significant positive changes over the past decade, the transition to a market economy has not always been smooth.

Initially, the need to implement fiscal reforms, raise government revenues, and finance budget deficits led to a financial crisis beginning in 1998 that caused output (GDP) to fall 40% and lasted for seven years (see Figure 7). To put this crisis into perspective, the World Bank and the William Davidson Institute (2002) estimated the economic effects to be twice the intensity of the Great Depression that affected western European countries and North America in the 1930s.

The World bank studied Russia and others countries transitioning to market economies finding that economic growth depends on new policies that encourage high productivity and a shift to using resources more efficiently, while at the same time developing social programs to help individuals and communities (World Bank 2002).
Just as the Russian economy was emerging from the 1998 financial crisis, it was affected by the world financial crisis of 2007, which was confounded by falling oil prices that greatly reduced government revenues. The economy, in 2009 is now showing signs of recovery, and is considered to be one of the strongest emerging economies, however wealth still remains concentrated around Moscow.

Figure 8 shows Gross Regional Product per capita by region as of 2007. This value is similar to that of GDP, but is calculated for each region rather than the country as a whole. What is interesting to note is that many of the most northern regions have the highest production per capita. At the same time, the northern regions happen to be the poorest in many cases. What might cause this discrepancy?

In Russia, approximately 80% of exported goods are oil and gas, minerals and timber, many of which are located in the North. Just as in Canada, the companies that develop and exploit these resources often are located in large centres, such as Moscow, and sometimes are international. The calculation of GDP or GRP reflects the value of goods produced in the region, but not the income that accrues to individuals. Also, given that the measure is “per capita” meaning per person, the relatively low population in the North contributes to high northern GRP values. Unfortunately, much of the wealth derived from natural resources leaves the north, making communities worse off. While the economic indicators suggest that northerners are well off, as in many cases, northern and rural communities are actually negatively affected by downturns in the economy to a much greater degree that are urban centres.
In many ways the northern regions can be relatively disadvantaged. Government spending on health, education, welfare, income support, and housing was significantly cut back after the Soviet era. In the colder regions of the North this left many more individuals at risk during harsh winters. For example, during the winters of 2001-2002 and 2002-2003 it was unclear if the government was going to be able to ensure that enough heating oil was delivered to northern communities. Many of the state-owned firms that provided these services went bankrupt during the economic transition and ceased operations before alternatives could be developed.

Today in Russia, there is much promise of a bright economic future but this will ultimately depend on the political environment, strengthening legal entities, and developing much needed infrastructure, particularly in the north. Similarly, it will be important to develop strong social supports and to build human capital. If Russian democracy and a market-based economy continue to succeed, then it is very likely that the future political development of the North will begin to mirror that of Russian counterparts in the rest of the Circumpolar North.
5.7 Conclusion

The economies of the Circumpolar Region will inevitably continue to be dominated by the resource extraction industries. These are highly volatile industries and this, too, is unlikely to change. The traditional economies of the Indigenous peoples of the region, for better or worse, are no longer capable of supporting their populations. Additionally, open access to resources is not suitable in the context of increasing demand, and subsequently rising scarcity. As resource development continues, property rights will play a central role in defining the rights and responsibilities associated with resource ownership, access and use. The notion of property rights has been fully embraced as evidenced by land claims, which essentially are bids to secure full property rights to guarantee future rights to and availability of resources. The central economic issue for these long-time residents of the region will be coming to grips with the modern economy and its demand for a well-educated labour force.

Study Questions

1. Illustrate how inland and coastal economies in the north are affected by the climate.

2. Portray how the main characteristics of traditional Indigenous economies differ from emerging market economies.

3. Justify the importance placed on renewable and non-renewable resources by the global economy.

4. Articulate why the penetration of non-renewable resource-based industries effectively destroy the independence of the Indigenous economies.

5. Discuss the role property rights play in sustainable development of renewable and non-renewable resources in the Circumpolar North.


7. Answer the following questions based on the Required Reading by Duhaime:
   a. Evaluate the costs and benefits of large-scale resource exploitation in the north.
   b. Appraise the role of the public sector in northern economies.
   c. Argue the importance of property rights in managing northern resources.

Glossary of Terms

**Command economy**: an economic system in which the government makes all decisions about the allocation, production and use of resources. China and the Soviet Union are examples of command economies.

**Commodity**: a physical substance, that can be bought and sold and can be substituted for a similar product.
**Communal property rights**: ownership by a group or the public of resources or goods, such as the atmosphere, oceans, etc. In traditional societies, land and its natural resources, too, were considered available for use by everyone, though custom might limit access to certain areas to particular groups.

**Economic inequality**: the situation in which income, commodities, resources, goods and services are distributed unevenly in an economic system. Economic inequality often manifests itself as poverty.

**Gross Domestic Product (GDP)**: the total market value of all final goods and services produced in a country in a given year. This also includes all spending on consumer productions, investments, and government spending, plus the value of exports, minus the value of imports.

**Market economy**: or free-market economy is an economy in which the distribution of resources is governed by the actions of individuals and firms rather than by governments.

**Mixed economy**: an economy or economic system that relies on markets and governments to allocate resources. In discussions of northern economies, “mixed” often refers to the coexistence and intermingling of the national economic system and subsistence economies.

**Non-market values**: real economic value that arises from using resources that have no price, or intrinsic values related to the existence of species, bequests and options for future use.

**Property rights**: is the legal ownership of resources, which entitles the owner to receive the benefits or pay the cost of the resources' productive activities.

**Scarcity**: an economic term used to define the condition where demands for a resource are greater than the supply at a given price.

**Subsistence economy**: see traditional economy.

**Tenure**: defines land or resource ownership. There are four types of tenure: private, public, common and open access. Tenure is closely related to property rights in that private ownership has the strongest suite of rights, followed by public ownership. Common property has the weakest form of property rights, and open access has virtually no secure rights.

**Traditional economy**: A blanket term that refers to the economic systems of Indigenous peoples prior to their contact and involvement with outsiders operating under market economic systems. In traditional or subsistence economies, production of goods is limited to what is required to maintain existence and social relations for a limited time. In general, the goods produced or harvested are for the use of individuals, their families, and for a limited trade rather than for cash sale.

**Transfer payments**: Payments of money made for which no good or service is exchanged (i.e., social security or unemployment benefits, or income stabilization payments). It is called a “transfer” because the money is simply transferred from one person to another. The term is most often used to mean payments made by governments to individuals or to households, but can also mean payments made by national governments to provinces, counties, territories, cities, or other sub-national governments.

**Wage economy**: A term used in discussions of northern economies to contrast with traditional or subsistence economies. Wage economies are free-market or mixed economies (in the formal
sense), in which an individual, as the owner of his or her labour, sells that labour in exchange for wages. The implication is that wage economies are capitalistic, whereas subsistence, or traditional economies, are not.

References
Aboriginal Communities and Mining in Northern Canada, Northern Perspectives, Vol. No.3-4 (Fall/Winter 1995-96).


Supplementary Resources
