# COMMUNITY CONSERVED AREAS

# IN THE CIRCUMPOLAR ARCTIC:

## Preliminary description and assessment of their legal status, threats and needs

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## Executive Summary

The concept of "Community Conserved Areas" (CCAs) is new to the circumpolar Arctic. It is largely unknown among indigenous organizations, local communities, academics, government and others working in nature conservation and management in the Arctic. Most indigenous people do not conceive of their ancestral areas in sub-divided parts that can be properly conserved as separate units. To maintain their indigenous lifestyles, they have utilized extensive land- and seascapes that include several interdependent ecosystems.

The "southern" concept of "protected areas" does not readily fit into the knowledge systems of Arctic indigenous peoples. On the other hand, the concept of CCAs could be a useful tool for indigenous peoples in the Arctic by which they may gain government recognition of their traditional practices and governance systems.

Several indigenous peoples have occupied the entire circumpolar Arctic, adapting to its harsh climatic characteristics in a variety of ways over a period of up to 10,000 years after continental ice sheets contracted northward. They modified the fundamental elements and processes of Arctic ecology very little compared to modern "southern" development and exploitation. They developed practices that conserved the Arctic's biodiversity while benefiting from its resources.

The customary practices of the Inuit of Nunavut, Canada were in part motivated to maintain hunter safety, but also to show respect for animals, which led to conservation of wildlife populations or habitats. The Inuit have managed their harvesting within important whale habitats for 1000s of years. Female whales with calves were especially respected both to ensure reproductive success and to prevent aggressive encounters. Along with ringed seals and Arctic char, caribou are a staple element of the culture and diet of Inuit and their ancestors. The land area of Nunavut is about 2 million $km^2$, and most of it is caribou habitat. Inuit has special respect and customary practices for caribou in their calving areas, and these areas could be readily identified as de facto CCAs. Nevertheless, Inuit consider calving areas as only one habitat type that must be protected in order for caribou populations to thrive. There are other special areas known to the Inuit that should be protected, so that they remain available during the 10-30 years when caribou populations are very low levels once every 70-90 years. Inuit know these special places as where there will be a few caribou when there are no caribou anywhere else. Such habitats can only be known through indigenous knowledge.

Reindeer herding and hunting are common traditional methods of indigenous livelihood and cultural identity in northern Russia. The Arctic tundra accounts for more than 2.5 million $km^2$ of reindeer herding pastures. In the 1700s and 1800s, the Nenets began developing herds of reindeer numbering into the 1000s. They herd their animals closely year-round on ancestral pastures; many of which are being affects by exploration and development. The Saami have developed a lifestyle well adapted to the ecotone where the Arctic tundra mixes with mountain birch forests. They do not herd their reindeer as closely as the Nenets, allowing them time for hunting, fishing and managing the northern forest.

Canadian governments do not have legislation or policies that could recognize CCAs. Several recent land claim agreements do recognize aboriginal ownership of large tracts of land. Nevertheless, 75% of Nunavut in owned by the government, and is co-managed

through several institutions of public government that have boards of directors made up of equal numbers of Inuit and government representatives. From an Inuit point of view, this co-management system falls short of giving the parties equality in decision-making. Government Ministers retain ultimate responsibility for biodiversity conservation and have over ruled several decisions by the Nunavut Wildlife Management Board, the institution largely responsible for biodiversity conservation.

The Russian Federation appears to have the only law within the entire Arctic that could protect CCAs de jure. Unfortunately, other laws and legal conditions largely disable implementation of the 2001 law on Territories of the Traditional Use of Nature (TTUNs). Indigenous communities have proposed TTUNs, but none have been approved. Now, the federal Duma is drafting new legislation that may or may not correct these problems.

In order to make improvements in legislation and policy that would enable the recognition of de jure CCAs in Arctic countries, it is important to understand the indigenous cultural context in which new frameworks would have to function. Current measures of biodiversity are largely quantitative and detailed, while indigenous knowledge is quantitative, qualitative and more generalized to provide holistic understandings of ecosystems. Sharing and communication among indigenous peoples, and between them and governments, are especially problematic in the Arctic because of inadequate infrastructure, and small, widely scattered, dispersed indigenous populations.

The Inuit, Nenets and Saami have all suffered acculturation impacts, which is generally similar. Some of those similarities are:

- Educational, linguistic, spiritual and cultural displacement and assimilation,
- Territorial displacement from ancestral lands and homes by force or coercion,
- Resource competition reinforced by legislative and socio-economic dominance,
- Displacement, reduction and destruction of critical ecosystems and natural landscapes through development, and local and long- distance pollution,
- Immigration of dominating non-indigenous peoples into their ancestral lands,
- Inadequate recognition and inappropriate expropriation and exploitation of indigenous knowledge, customary practices, lands and resources.

The three indigenous peoples that we studied were selected to illustrate a range of situations. The Saami now make up of only 0.2% of the peoples living within their ancestral lands, the Nenets only 12%, and the Inuit 84%. Although the Inuit are currently in a more favourable position, there is still no legislation available for them to independently and legally manage protected areas on publicly owned lands.

It is our assessment that the Saami of Russia have the greatest number and seriousness of urgent needs in maintaining their lifestyle. They have lost much of their former land base, and still have no secure and inalienable access or ownership rights. The Nenets may not be far behind in suffering a similar fate, as resource exploration and development accelerates across their traditional lands. They too have no secure land and resource rights. We have offered several suggestions that could encourage development of CCAs in the Arctic, but these suggestions have not been developed in a fully participatory process with the indigenous peoples concerned. That would be the next step required to promote the recognition of CCAs in the Arctic.

## Definitions

| | |
|---|---|
| Autonomous Okrug | An autonomous territorial division within Russia with its own constitution, president and parliament, and the home of a specific ethnic minority. It has more autonomy than an oblast; but is represented by the Russian Federation in international affairs. |
| Inuktitut | 1. the language of the Inuit; 2. the cultural ways of the Inuit, e.g., doing anything “in Inuktitut” = doing something in accordance with the ethical, cultural values and methods of the Inuit. |
| Floe edge | The edge where land-fast sea ice meets open water or pack ice. |
| Indigenous small peoples | Indigenous peoples of Russia with populations of less than 50,000. |
| Land-fast ice | Sea ice that is continuous, stable and connected the land at tidal zone |
| NLCA | Nunavut Land Claim Agreement |
| NQLs | Non-Quota Limitations; limitations on wildlife harvesting (e.g., seasons, sex/age, areas, methods of harvest) |
| NWMB | Nunavut Wildlife Management Board |
| Oblast | The most common administrative territorial division within Russia with a federally appointed governor and a locally elected legislature. |
| Pack ice | Sea ice that is floating and usually moving loose in open water, although it can be very dense or form large ice floes, and may appear to be continuous. |
| Red Book | Red Data Book of the Russian Federation, a state document of the rare and endangered species and sub-species of the plants and animals of Russia. |
| Southern | Adjective to describe mainstream influences from western Europe, and southern Canada and the United States and Russia that have caused acculturation of Arctic indigenous peoples. |
| TTUNs | Territories of Traditional Use of Nature by Indigenous Small Peoples. |

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## 1. Introduction: Community Conserved Areas, a new and foreign paradigm for the Arctic

The concept of "Community Conserved Areas" (CCAs) is both new and foreign in the circumpolar Arctic. It is largely unknown among indigenous organizations, local communities, academics, government and others working on issues related to nature conservation and management in the Arctic.

The concept is foreign in that most Arctic indigenous people, following traditional knowledge, do not conceive of their ancestral areas in sub-divided parts that can be properly conserved as separate units. A community's ancestral area forms a whole that is critical to maintaining their indigenous lifestyle, and it is usually viewed a part of a much larger region that is required to function as an ecosystem. The geographic extent of such functional areas may be much greater in the Arctic because of the inherently low primary productivity, extremely slow soil development and other factors. As a result, conservation areas of a given size that may provide substantial resiliency at temperature and tropical latitudes would be much more fragile within the Arctic tundra ecosystem.

Arctic indigenous peoples do not conceive of a certain seasonal habitat for wildlife or domesticated animals as being more important than any other seasonal habitats. Because the animals move their annual ranges from place to place over years or many decades, indigenous knowledge reveals that large areas that may be unoccupied today will become critical areas to support Arctic biodiversity in years, decades, and centuries in the future. Indigenous knowledge then suggests that specific areas are difficult to identify as more important than others.

The entire "southern" concept of "protected areas" does not readily fit into the knowledge systems of Arctic indigenous peoples. Unless huge areas of potentially millions of hectares can be conserved as recognized de jure CCAs, these "protected areas" will not serve to protect Arctic biodiversity with the same success and effectiveness of de facto CCAs have done in the past.

On the other hand, the concept of CCAs may become useful for indigenous peoples to have their traditional practices and governance recognized by governments and others. Most people in the Arctic seem to have assumed that co-management of indigenous ancestral lands, waters and resources would be the best that indigenous peoples could hope to have recognized, and they continue to struggle with national and regional governments to meet their needs through the co-management paradigm. Although CCAs may be just as maladapted for the Arctic as other protected areas established within the "southern" view of geography and time, CCAs could become a cross-cultural tool by which indigenous peoples in the Arctic could gain recognition of their capacity to conserve biodiversity and thereby protect larger portions of their ancestral lands and waters while managing these areas without sharing authority with national and regional governments.

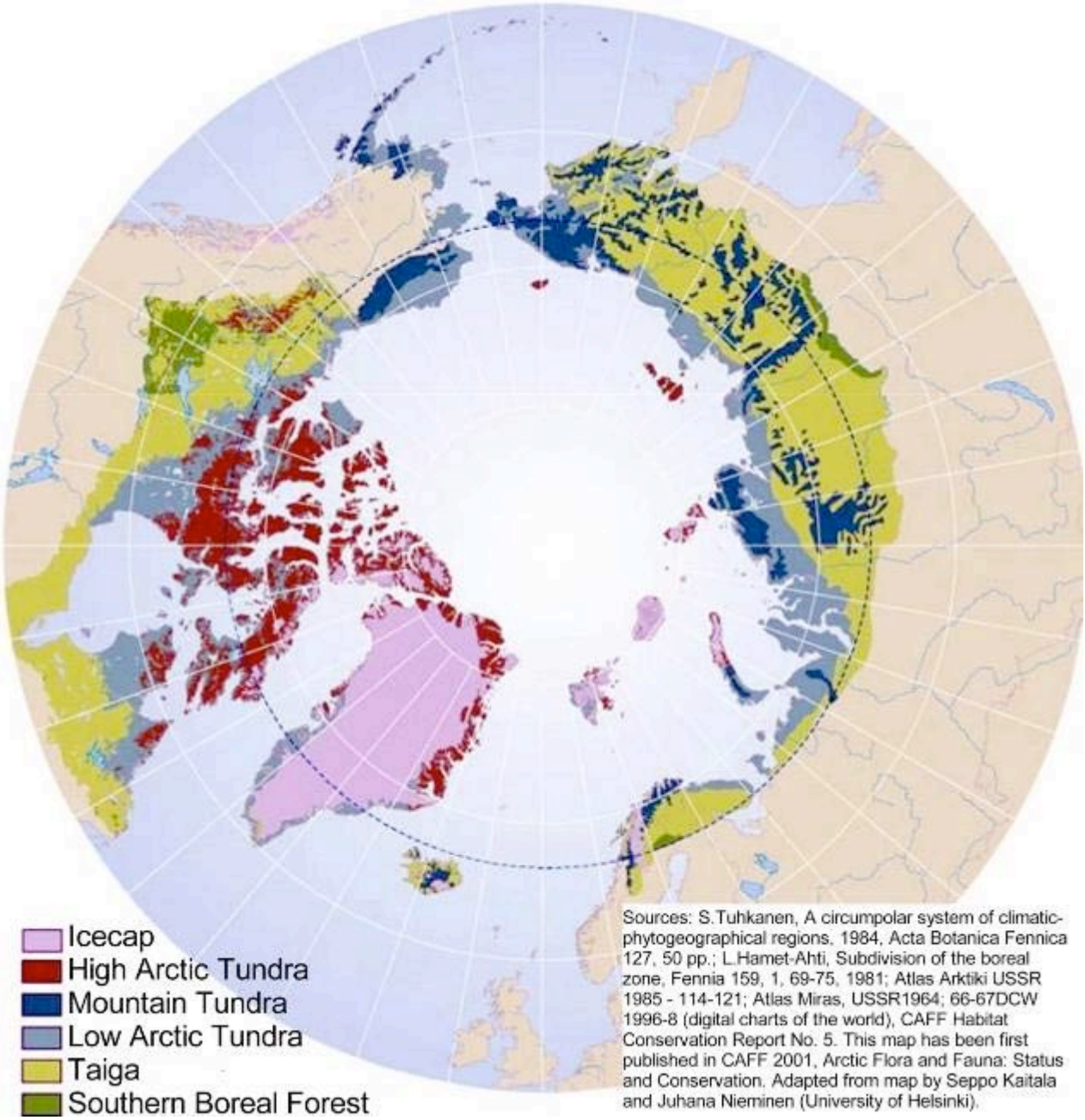


**Figure 1. Terrestrial ecosystem types in the circumpolar Arctic.** **Adapted from map.grida.no**

## 2. Study Area and Methodology

Arctic ecosystems can be delineated using several different criteria, such as the treeline, +10°C July average isotherm, southern limit of continuous or discontinuous permafrost, maximum or minimum extent of sea ice, and the Arctic Circle at 66° 33' N. The most extensive geographic region would be defined by the southern limit of discontinuous permafrost and the maximum extent of sea ice. These two criteria would include extensive tracks of both Arctic tundra and taiga or boreal forest (Fig. 1), and involve many indigenous peoples with highly variable lifestyles (Fig.2).

The treeline is the boundary between Arctic tundra and taiga, which also approximates the +10°C July average isotherm on small-scale maps. However, on the ground the treeline is highly variable, depending on terrain ruggedness, elevation, disturbance (e.g., forest and tundra fires) and historical climatic patterns. As a result, there is a tundra-forest transition zone or ecotone that can be up to 300 km wide in northern Russia. As well, in mountainous terrain it can be difficult to distinguish Arctic tundra from alpine tundra, for example in northern Scandinavia.

The circumpolar Arctic includes many different indigenous peoples, some with common cultural and language roots, and some with very different roots. Some have developed lifestyles and traditional technologies that were highly adapted and dependent on Arctic tundra ecosystems, while others were adapted mainly to the resources of the taiga. Most were not well adapted for both environments. The northern Saami were one example of people that used each environment, perhaps because in northern Scandinavia the Arctic tundra zone is not very wide and is largely limited to Finmark in north Norway and the northern coastal area of the Kola Peninsula in northwestern Russia.

For the purposes of this study, we defined the Arctic based on the Arctic tundra and indigenous lifestyles that were well adapted to life on the tundra and its adjacent marine waters. We also included regions where indigenous lifestyles utilized the forest-tundra ecotone in some seasons.

Early in the study it became readily apparent that the Arctic was far too vast to provide a full review of CCAs for the entire Arctic. Therefore, we selected the following three major indigenous peoples that illustrate a full range of situations occurring around the North Pole:

- The Inuit of the territory of Nunavut in Canada, a traditional hunting people who make up the majority population within a regional jurisdiction that is almost entirely Arctic tundra.
- The Nenets of the Nenets Autonomous Okrug in Russia, a traditional reindeer (*Rangifer tarandus*) herding people fully adapted to the Arctic tundra in a jurisdiction where they make up less than 20% of the population.
- The Saami of the Murmansk Oblast in Russia, a traditional reindeer herding, fishing and hunting people adapted to the forest-tundra ecotone in a region highly impacted by industrial development and immigration from southern regions.

As well, we present some information about Greenland, and Alaska in the United States.

Table 1. Characteristics of the regional jurisdictions that are the main subjects of this study.

| Regional jurisdiction | Land Area ($km^2$) | Human population | Population density | Proportion of indigenous peoples | Capital city (% of total population) | Year |
|---|---|---|---|---|---|---|
| Nunavut, Canada | 1,932,000 | 29,500 | 1.5 / 100-$km^2$ | 84% Inuit<br>0.5% Other | Iqaluit (21%) | 2006 |
| Nenets Autonomous Okrug, Russia | 176,700 | 41,500 | 23 / 100-$km^2$ | 19% Nenets<br>11% Komi | Naryan-Mar (45%) | 2002 |
| Murmansk Oblast, Russia | 144,900 | 892,500 | 616 / 100-$km^2$ | 0.2% Saami<br>0.2% Komi | Murmansk (38%) | 2002 |

We collected information by contacting experts in five Arctic nations by telephone and e-mail (Table 1), and reviewing relevant published and unpublished literature and legislation. Unfortunately, we have not yet completed proposed consultation visits to Nunavut and possibly Scandinavia due to urgent personal circumstances. We did have a telephone conference meeting with the Nunavut Wildlife Management Board.

Table 2. Personal communications.

| Arctic region | Organization | Person or group | Type of communications |
|---|---|---|---|
| Nunavut | Nunavut Wildlife Management Board | Board of Directors, Iqaluit | Telephone conference |
| | | J. Tigullaraq, Chief Executive Officer, Iqaluit | Telephone and email |
| | | M. d'Eça, Legal Counsel, Ottawa | Email |
| | | P. Frame, Biologist, Iqaluit | Telephone and email |
| | Nunavut Tunngavik Inc. | C. Gills, Director, Lands and Resources, Cambridge Bay | Telephone |
| | Kivalliq Inuit Association | L. Manoz, Director, Lands, Rankin Inlet | Telephone |
| | Nunavut Inuit Wildlife Secretariat | R. Connelly, Executive Director, Rankin Inlet | Telephone |
| | Government of Nunavut | R. Wyma, Manager, Nunavut Parks, Iqaluit | Telephone |
| | | M. Campbell, Wildlife Biologist, Arviat | Telephone |
| | Canadian Wildlife Service | S.-L. Han, Habitat Biologist, Iqaluit | Telephone |
| | Hamlet of Pond Inlet | D. Qamaniq, Mayor, Pond Inlet | Telephone |
| Nenets Autonomous Okrug | Association of Nenets People "Yasavey" | V. Peskov, President, Naryan-Mar | Email |
| | Norwegian Polar Institute | W. Dallman, Senior Research Scientist, Tromsø, Norway | Telephone and Email |
| | University of Oulu | T. Tuisku, Senior Research Scientist, Thule Institute, Oulu, Finland | Telephone and Email |
| Murmansk Oblast | Saami Cultural Centre | L. Avdeeva, Head, Lovozero | Telephone |
| | University of Tromsø, Norway | N. Tyler, Assistant Professor, Centre for Sámi Studies, Tromsø, Norway | Email |
| Russia, General | Russian Association of Indigenous Peoples of the North | D. Berezhkov, Chair of Executive Council | Email |
| | | V. Bocharnikov, Consultant, Moscow | Email |

| Arctic region | Organization | Person or group | Type of communications |
|---|---|---|---|
| | Russian Indigenous Training Centre | N. Vronsky, Centre for Support of Indigenous Peoples of the North, Moscow | Email |
| | University of Aberdeen | D. Anderson, Lecturer, Department of Anthropology, Aberdeen, Scotland | Email |
| Canada, General | Inuit Circumpolar Council Canada | S. Meakin, Consultant, Ottawa | Telephone |
| | Inuit Tapiriit Kanatani | E. Loring, Researcher, Department of Environment, Ottawa | Telephone |
| Greenland | Greenland Institute of Natural Resources | F. Ugrate, Head, Department of Birds and Mammals, Nuuk | Email |
| | | A. Rosing-Asvid, Biologist, Department of Birds and Mammals, Nuuk | Email |
| | Greenland Home Rule Government | S. Gammeltoft, Section Head, Ministry of Environment and Nature, Nuuk | Email |
| Alaska, USA | Huntington Consulting | H. Huntington, Consultant, Eagle River | Telephone and Email |
| | The Nature Conservancy | R. Hagenstein, State Director, Anchorage | Email |
| | University of Alaska | S. Langdon, Head and Professor, Department of Anthropology, Anchorage | Email |


**Figure 2. Indigenous and other peoples in countries of the Arctic Council.** **From: maps.grida.no**

## 3. Extent, types and status of Community Conserved Areas in the Arctic

### 3.1. Introduction

Although the CCA concept maybe new, the phenomenon of indigenous conservation that it embodies is well established in the Arctic. Indigenous peoples have occupied almost the entire circumpolar Arctic since the last continental deglaciations 8,000 to 3,000 years ago. These peoples moved into and adapted to the Arctic tundra over a period of up to 10,000 years as the polar ice caps contracted northward. As these peoples occupied the Arctic, they developed various ways to modify and conserve the ecosystems that they depended upon. Their modifications had few environmental impacts on biodiversity, compared to modern "southern" development and exploitation.

### 3.2. Nunavut, Canada

#### 3.2.1 Marine Mammal Conservation by Inuit in Nunavut

Inuit have managed their harvesting within important whale habitats for at least 100s of years. In some situations, the traditional laws may have been motivated because of hunter safety or to meet traditional standards for showing respect to animals rather than to conserve wildlife populations or habitats, although conservation was an end result.

Bowhead whales (*Balaena mysticetus*) have been harvested by Inuit and their ancestors for 1000s of years. Inuit do not hunt female bowheads with calves. Through traditional knowledge, it is known that bowhead mothers are very protective of their calves and it can be dangerous to kill or even hunt a calf. If a calf died or was separated from it's mother in some other way, the female would remain in the area for a long time searching for its calf. In some cases, bowhead mothers were thought to return to the area a year later and emit distinctive sounds, appearing to be mourning for the calf. It is inappropriate in Inuktitut to inflict such suffering on animals. Calves are born during spring migration from April to early June. Within Nunavut, calves are seen near Igloolik (summer) in Foxe Basin, near Southampton Island and Repulse Bay in northern Hudson Bay, and near Isabella Bay (Igaliqtuuq) (late summer/early fall), Kivitoo (Qivittuuq), Cumberland Sound (spring and early summer), Button Point (Sanirut) (spring) and Arctic Bay (spring) in the vicinity of Baffin Bay. The Inuit of Clyde River have proposed that Isabella Bay be protected as a National Wildlife Area; however, an agreement for co-management of the area has not been reached with the federal government.

Beluga hunts were planned at times to minimize direct impacts on calving. In the calving area of Clearwater Fiord on Baffin Island, belugas were hunted only as they arrived at newly formed cracks in the sea ice in June. They give birth after the fiord is free of ice in July and early August. Before the 1960s, belugas remained in the fiord until late October, but now they may leave as early as late August. This may be in response to motorized boats in the vicinity.

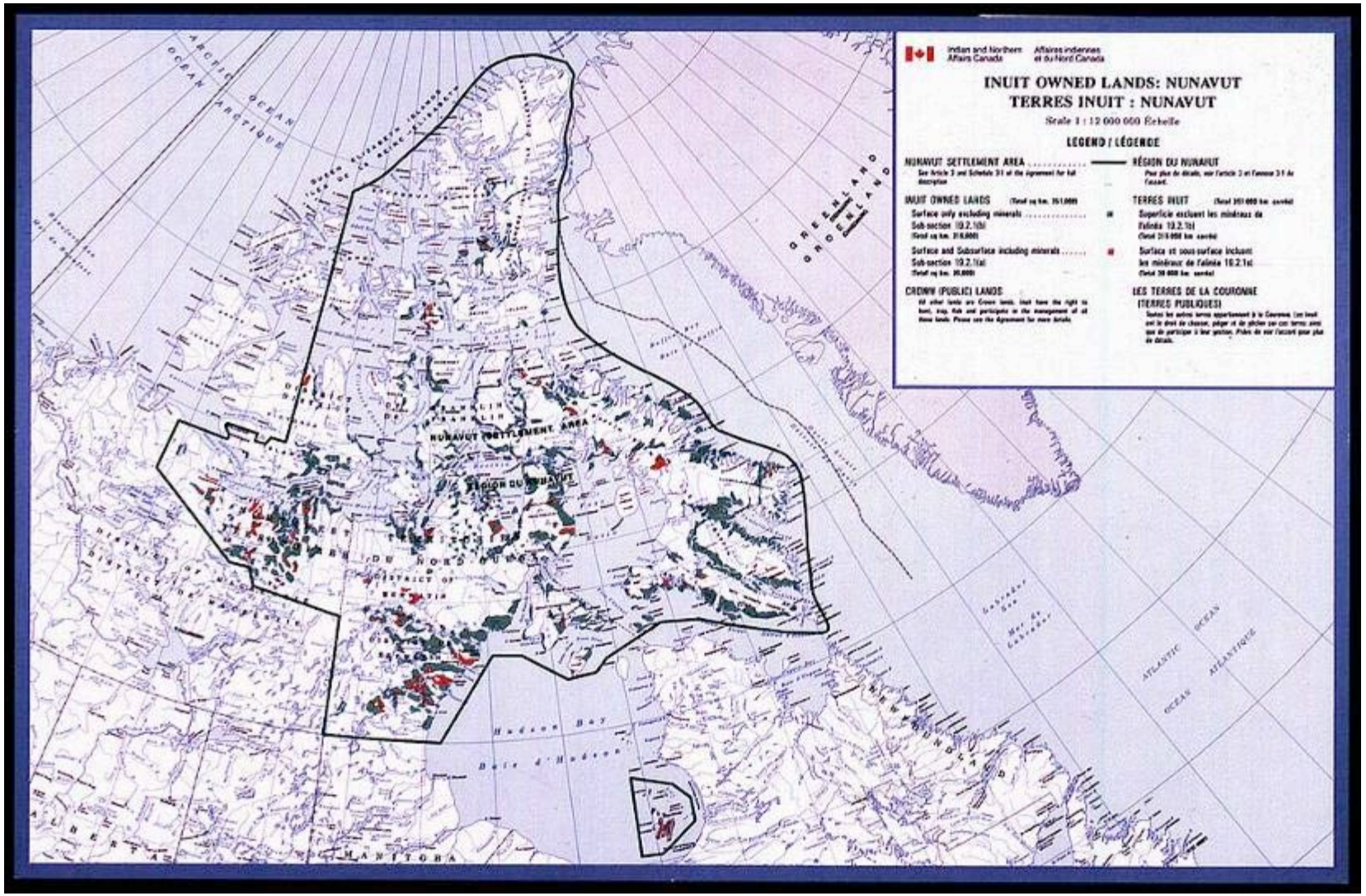

Figure 3. Lands selected by the Inuit of Nunavut during negotiations to settle their Land Claim with the Government of Canada

### 3.2.2. Inuit Conservation of Caribou (*Rangifer tarandus*) Calving Areas in Nunavut

Along with ringed seals (*Phoca hispida*) and Arctic char (*Salvelinus alpinus*), caribou are a stable element of the culture and subsistence that has enabled Inuit and their ancestors to survive in the Arctic tundra ecosystem. That role continues today, and Inuit are concerned about the health and conservation of caribou as pressures on the environment come from development aimed at meeting the needs of humans living outside the Arctic. Inuit generally do not separate their practices to conserve caribou in specific seasons from the context of year-round conservation practices, because the success of conservation in any given season and area would be undone without conservation throughout the annual ranges of caribou populations. It is that understanding that has maintained caribou populations so that they can sustain the lifestyle and survival of Inuit and other aboriginal people.

**Figure 4. Caribou female nursing her calf on southern Baffin Island, Nunavut.** **Photo by M. Ferguson.**

Nevertheless, for 1000s of years Inuit have developed special respect and practices for female caribou and their calves before, during and after the calving season (i.e., from May to July) and at other seasons when environmental stresses may be particularly high (e.g., at water crossings during migration). If the entire range of each caribou population cannot be identified as a CCA, then caribou calving areas, especially on the mainland of Nunavut, are a type of area that could be identified readily as such from a cross-cultural protected-area view point. Calving areas of caribou herds that spend winter in the forests south of Nunavut are more clearly identifiable and defined than the more widely dispersed calving areas of most populations that reside year-round on the Arctic tundra of Nunavut. The calving areas of mainland herds do change somewhat from year to year, with more significant changes over decades.

Many Inuit believe that the calving period is a sacred time when the caribou should be left alone. Customary practices of Inuit relative to pregnant female caribou and females with young calves do vary somewhat from region to region, and from camp to camp. Many hunters avoid harvesting pregnant females in late winter and spring, preferring barren females and males. In many areas, calving occurs inland or on rugged terrain during the snowmelt, and many Inuit harvest marine mammals or fish in other areas during this period. Where caribou calve close to camps, most Inuit do not hunt pregnant females and females with calves from about May 15 to July 15, but a few may. From late July to early September, Inuit harvest caribou for meat, and for skins to make winter clothing. Males and barren females are usually preferred for meat because they have larger amounts of fat. A relatively small proportion of calves will be harvested to provide skin for children's clothing.

### 3.2.3 Long-term Conservation of Special Places for South Baffin Caribou in Nunavut

The sense that specifically defined CCAs are incompatible with indigenous views of how Arctic wildlife and their habitats should be conserved is perhaps best exemplified by considering how caribou utilize habitats over several decades. Caribou are dependent of extensive landscapes that they migrate across seasonally, and larger landscapes that they naturally rotate across over decades and potentially centuries. Based on Inuit quajimajatungit, major types of change in how caribou on southern Baffin Island utilize the available range or habitat occur over a 70-90-year period. From a population low with a few local pockets of caribou scattered in specific areas known to Inuit, the population eventually will enter a period of "range expansion", as caribou move into areas where forage biomass has built up without significant grazing pressure over 20-40 years. After some decades of expansion and population increase, forage resources on older occupied range may become depleted and sub-populations may enter decades of "range drift", as they abandon depleted ranges on one front and expand onto relatively unoccupied range on another front. After a period of range drift, sub-populations undertake major "range shifts" relocating their foraging areas by 10s or 100s of km. A range shift is only successful if the caribou find habitats that can sustain their grazing for some years. However, sufficient overgrazing across the landscape in some decades apparently occurs so that the ranges cannot sustain the large sub-populations. "Range volatility" occurs when caribou sub-populations frequently shift ranges every year or every two-three years; this is a period of overall population decline, which may last 10-30 years. This is also a period when weather events, which could be aggravated by future climate change, can have major impacts on the population. As summarized from several Inuit elders, "snow is usually no problem for caribou because the land cannot be covered completely with ice in any winter. However, snow can be a problem if there has been too many caribou for too long."

After 10-20 years of range volatility and population decline, South Baffin caribou enter a period of "range stability". In this period, there are "special places where caribou can be found when there are no caribou any place else" Although some elders may not have visited these places in their youth, they were told how to travel and find them by their elders so that they could access the caribou when necessary later in life. Most of these "special places" are far inland on Baffin Island, and the last time that this range stability occurred was approximately from about 1934 to 1953. During this period, extended families carefully managed the harvesting of caribou within these special places,

although there was no single method. Some extended families would send one of their younger nuclear families inland during late winter and returning early the following winter, mainly to collect summer skins for winter clothing. Some other families walked inland during summer to such special places, but sometimes did not find caribou with some families starving or surviving on small animals, like snow buntings (*Plectrophenax nivalis*) and Lapland longspurs (*Calcarius lapponicus*). Other hunters made occasional trips inland during winter taking only a small amount of meat by dog sled.

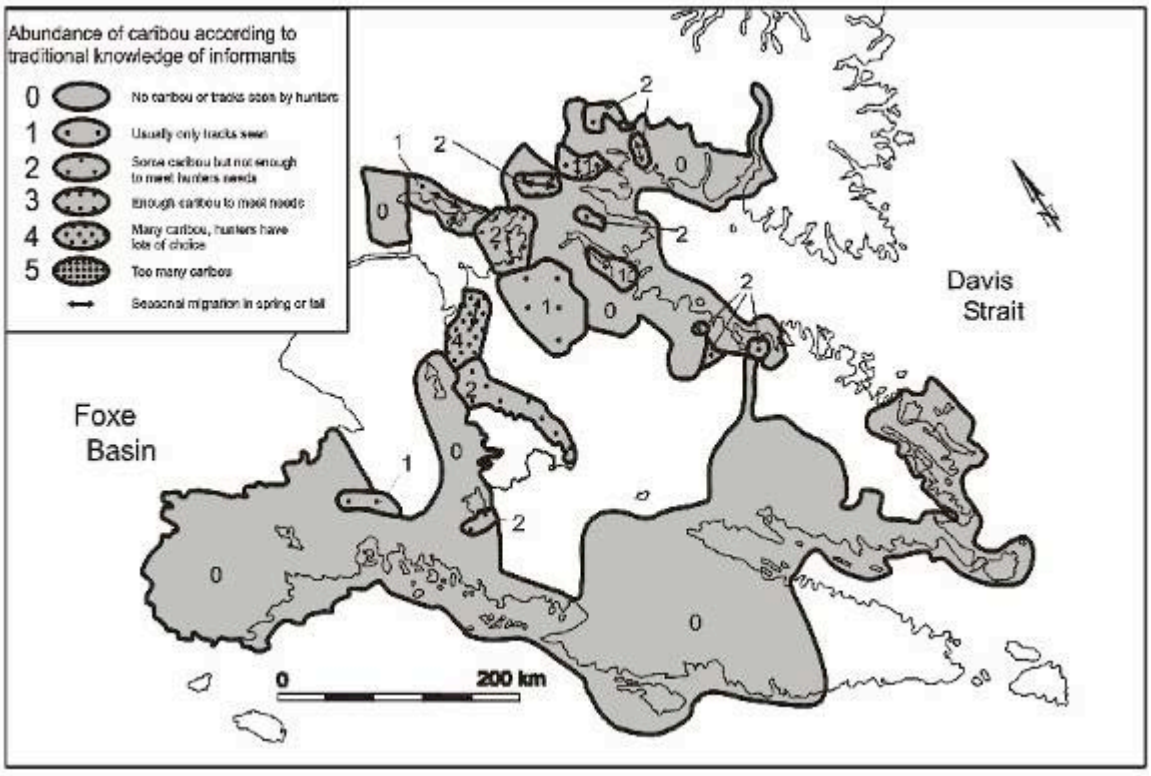


**Figure 5. Caribou distribution limited to special areas on southern Baffin Island, based on Inuit quajimajatuqangit (knowledge).**

These “special places” for caribou remain important to Inuit on southern Baffin Island. Local communities selected all of the special places used by caribou during winter in the 1940s during the land selection process in negotiations with the federal government, leading to the settlement of the land claim in 1993. These areas make up part of the lands that Inuit own today. As a result, Inuit have final say over the types of land use activities that can occur within these special places.

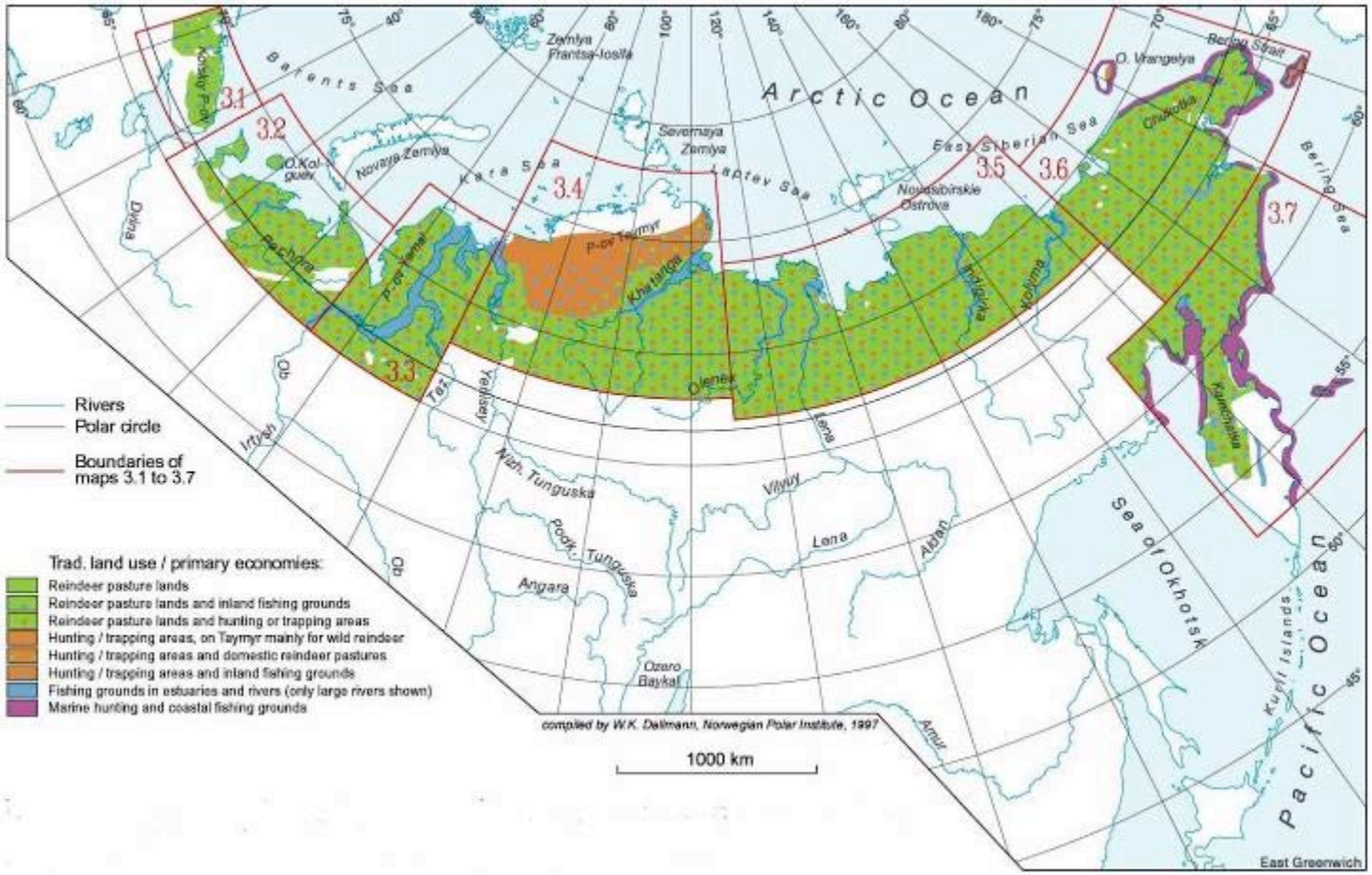


**Figure 6. Traditional land uses of indigenous peoples in northern Russia.** **From: miljo.npolar.no/temakart/pages/homeE.asp?letter=R**

### 3.3. Russia

A common form of livelihood and a major cultural element throughout the Arctic tundra and forest-tundra ecotone in Russia is reindeer herding and hunting. Russian reindeer account for about 67% of the world's herded reindeer population across an area of 3.3 million km$^2$ in the tundra, forest-tundra ecotone and taiga. Most of the reindeer herding pastures (i.e., 2.7 million km$^2$) lies within the Arctic zone. The traditional importance of reindeer herding tends to decrease, as hunting increases, from west to east across northern Russia. Generally, reindeer herding is considered incompatible where significant populations of wild reindeer occur. Most reindeer herding peoples report that when semi-domesticated and domesticated reindeer come into contact with wild reindeer, the wild reindeer tend to lead the other animals away.

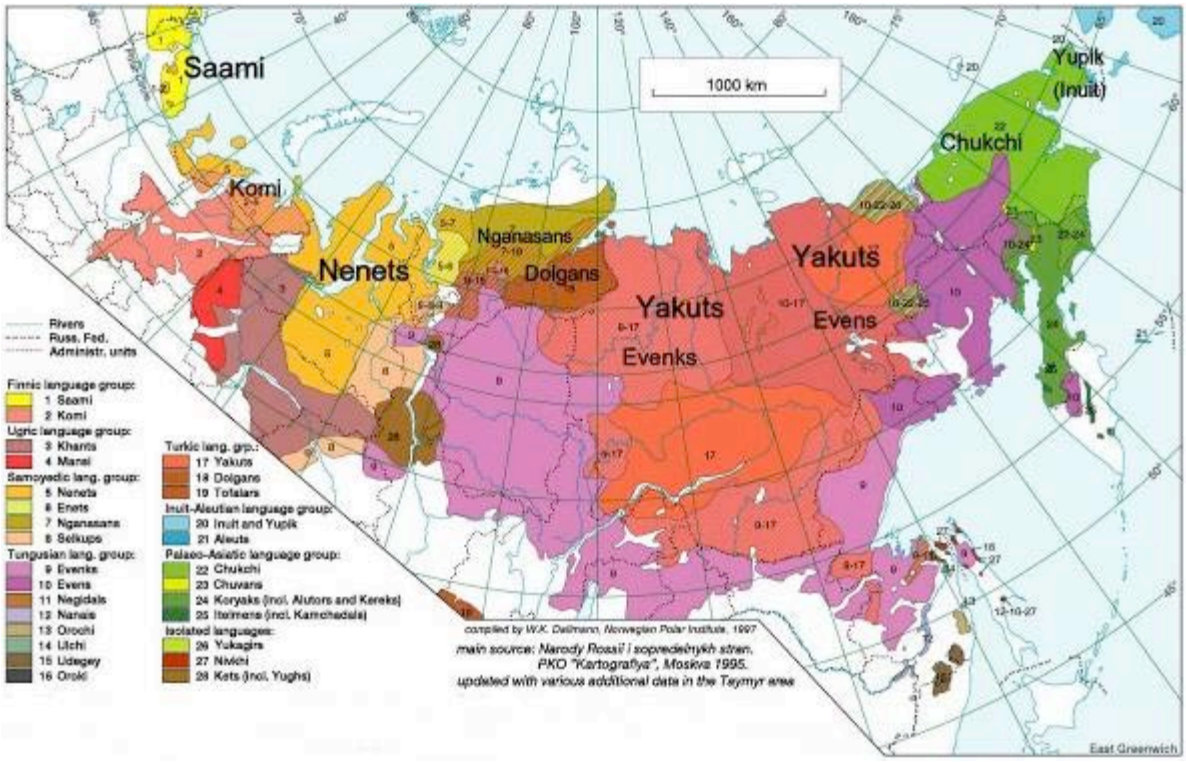


**Figure 7. Distribution of indigenous peoples in northern Russia.**
From: miljo.npolar.no/temakart/pages/homeE.asp?letter=R

Historically, all the indigenous peoples had been reindeer hunting societies. Reindeer herding evolved at different times among different indigenous groups, as they found the use of various types of blinds, walls and fences from which hunters could get very close to wild reindeer, and in some situations they could coral them for longer and longer periods. Many of the Saami, Komi, Nenets and Yakuts in northwestern and north central Russia are involved in reindeer herding, although some families are involved more in fishing and terrestrial and marine wildlife hunting. Traditionally the Evens, Evenks, Dolgans, Ngahasans, Chukchi, and Yupiks (Inuit) were more involved in hunting of reindeer and other animals than the peoples to the west. The Evens and Evenks often kept draft reindeer in order to travel longer distances for hunting and to carry back the harvest. Chukchi have had large numbers of reindeer, but they are also marine mammal

hunters, and do not watch their herds very closely. Historically, the number of domesticated reindeer owned by the Chukchi has varied greatly from time to time. Yupiks, a sub-group of Inuit, have a mainly hunting and gathering culture.

As a people, the Nenets have the largest total number of domesticated reindeer in Russia, while the only profitable reindeer herding business is operated by 'Tundra", a Saami business in the Murmansk Oblast.

**Figure 8. Nenets moving their reindeer across the tundra in summer.**
**Photo by A. Golubtsov, from: www.glubtsov.com/anthrop.htm**

### 3.3.1. The Nenets of the Nenets Autonomous Okrug

Throughout living memory, the Nenets used reindeer as draft animals to pull sledges across the tundra year-round, largely to support hunting of reindeer and other species. In the 1700s and 1800s, small family herds of draft reindeer increased progressively. As large-scale reindeer herding developed, family herds often numbered in the 100s, with the largest ones up to 3,000 reindeer. These herds were moved seasonally between wintering and summering areas. Today, the lives of Nenet reindeer herders while out on the tundra resemble those of past centuries in many ways, despite the many changes that it has undergone. The Nenets watch their herds very closely using draft reindeer and dogs to control their daily movements. Reindeer herding in the Okrug still follows the seasonal nomadic rhythms of the past with the reindeer depending on natural pastures. The summers are spent on the open tundra near the coast of the Arctic Ocean, while the winters are spent mainly in the forest-tundra ecotone. The Nenets control their herders closely all year round. The calving period during April-May is an especially busy period. Herders also maintain their fishing and hunting traditions and skills, depending on nesting migratory waterfowl and other animals during summer. Some reindeer calves

are slaughtered in August-September for clothing skins. The main slaughter for meat occurs in November – December. A good herd is made up of 1000-2000 reindeer; both smaller and larger herds are difficult to keep together. Due to the problems with the industry since the 1990s, some herds number less than 500 animals. Draft reindeer with sledges and dogs are still used to herd the reindeer.

### 3.3.2. The Saami of the Murmansk Oblast

The Saami in the Murmansk Oblast have managed and protected important cultural, environmental and livelihood areas for 100s to 1000s of years. They all live in the town of Lovozero on the Kola Peninsula where they make up 51% of the town's population of 3,500. Although internationally stereotyped as reindeer herders, many Saami also sustained their culture and likelihoods with fishing, hunting and plant harvesting. With the creation of the Soviet Union, the Saami have been excluded from most of their traditional harvesting and herding areas, a situation that continues today despite the collapse of the Soviet state. Next to reindeer herding, fishing was a substantial component of Saami culture in northwest Russia. The Saami fished in a sustainable way, until fishing pressure increased with the massive immigration of Russians and other ethnic groups in the early and mid-1900s with the opening of the region with railroads, highways, mines, smelters, military bases and other development.

The most well known cultural and environmental area is Seidjavr (Seidozero), a lake nestled about the tundra mountains of the Kola Peninsula, 17 km southwest of Lovozero. The lake and surrounding area of about 18,000 sq km form a central site of Saami cultural and spiritual values and rituals, which has been carefully guarded by traditional practices and rules for a very long time. Several rare and endangered plants officially listed in the Russia's Red Book occur in the Seidjavr area. There are also many other cultural and spiritual sites on the Kola Peninsula that are important to the Saami.

Reindeer herding is also practiced by six of 14 cultural sub-groups living in Lovozero, using a blend of traditional ways and modern technology. The Saami use a mixed type of loose and close herding. In some seasons the herds are allowed to roam quite freely, while in others they are herded very closely especially during the seasonal migrations.

The reindeer herding is managed through "Tundra", a local cooperative, which employs 340 people. "Tundra" is involved in the production of reindeer meat, reindeer-skin clothing, milk and beef production and handicrafts. It has 25,000 reindeer and almost 400 head of cattle. Only its reindeer meat production is profitable, although reindeer clothing is sold to cooperative work for local use and benefit.

The Saami have traditionally utilized the northern coastal tundra, the forest-tundra ecotone where mountain birch is common, and the boreal forests of the Kola Peninsula and adjacent areas of northwestern Russia. Traditionally, each Saami extended family had a territory with areas for different needs and activities. The Saami still use birch for heat. They managed birch forests to ensure sustainability for fuel and other materials. This traditional management included rotational use of the forests over periods varying from 10 to 100 years. The rotation within each forest depended on complex Saami knowledge of long-term growth patterns, which varies with terrain structure, soil quality and climatic conditions. These patterns can vary greatly over short distances across the forest-tundra ecotone. Customary practices also ensured that when an area was cut the healthiest trees remained; clear cutting did not occur. In addition, Saami harvesting of

birch took an ecosystem approach as trees were left to ensure continued use for animals, and to protect plants and soil from the effects of wind, snow, water and other environmental factors. Saami management of mountain birch includes many other features (e.g., preventing harvesting near springs and rivers) that demonstrate their deep understanding of sub-arctic ecosystems and potential human impacts.

**Figure 9. The State Nature Reserve of Seidjavr, a sacred environmental area for the Saami on the Kola Penisula, Russia.** **Photo by Ovchinnikov, from: yurioff.35photo.ru/photo_19324/**

**Box 1. Community Conservation Strategies: Examples from Arctic Alaska**

Contributed by: Henry P. Huntington, Eagle River, Alaska, USA

Indigenous communities in Arctic Alaska obtain food, clothing, shelter, and a sense of belonging that nurtures the spirit, from the land and sea. The continuous record of habitation, stretching back thousands of years in some cases, demonstrates the long-term sustainability of indigenous practices.

While the overriding goal of traditional hunting and fishing has been to provide food, clothing, and other materials, harvest strategies often create conservation benefits. "Conservation" in the modern sense may be a new concept, but many indigenous customs are guided by the underlying philosophy of making sure that tomorrow will also be provided for.

While no systematic efforts have been made to document and analyze the conservation significance of indigenous practices around Alaska, several examples have emerged in the course of research on other aspects of human-environment interactions in communities.

In many respects, flexibility is a key strategy. Using different species according to local availability can help reduce pressure on species that are scarce, while taking advantage of species that are at least temporarily abundant. In the villages of Elim, Koyuk, and Shaktoolik along Norton Bay in western Alaska, elders explained that knowing where and how to catch ptarmigan (*Lagopus* spp.) and tomcod (or saffron cod, *Eleginus gracilis*) meant one would never starve during winters, because such food was always available even if not preferred.

In Arctic Village in the northeastern interior of Alaska, one local lake is kept as a reserve in case of need. Villagers fish in other lakes or the river, and hunt caribou that migrate through the area, but they avoid this one specific lake unless food is scarce, ensuring that they will have a reserve food source in times of crisis.

Other strategies also minimize impacts to animal populations. On St. Lawrence Island in the northern Bering Sea, residents gather seabird eggs but avoid gathering eggs twice from the same nest. The birds are able to produce a second clutch of eggs in a season, but not a third, so taking eggs only once allows villagers to eat, and the birds to reproduce.

In several communities, hunting strategies emphasize allowing the animals leading a migration to establish a migratory route before hunting takes place. Once the lead animals have gone through, other animals will follow, even if there is hunting. If the lead animals are deflected, however, the entire migratory path may shift that year, leaving the village with little or no access to the animals. This practice has been noted in Point Lay (northwestern coast) for beluga whales (*Delphinapterus leucas*), Kaktovik (northeastern coast) for bowhead whales (*Balaena mysticetus*), and Anaktuvuk Pass (middle of the Brooks Range of northern Alaska) for caribou (*Rangifer tarandus*). Allowing the animals to follow their preferred migratory path is also likely to thus benefit the overall population, for example by reducing energetic demands associated with less direct routes or less favourable habitat.

All of these examples have both spatial and temporal complexities. Certain areas may be recognized for special significance with regard to either "normal" or "emergency" harvesting. Certain events may be recognized as vital for signalling the need for using areas or animals that have been "held" in reserve. The locations of these wildlife resources may vary considerably over time, so that designation of specific areas may not capture the full geographic extent and the full range of practices that are needed by these communities to conserve the Arctic environment over the long term.

## 4. Legislation and policy framework related to Community Conserved Areas in the Arctic

### 4.1. Nunavut, Canada

Canada does not have national or territorial legislation or policies that would recognize or support CCAs or an equivalent. Several recent land claim agreements do recognize aboriginal ownership of large tracts of land, and the responsible aboriginal corporations or communities could voluntarily take actions to protect their lands as private landowners. On the other hand, Canada does not have legislation that would support such voluntary actions in a manner comparable to Australian laws that enable state recognition and support of Indigenous Protected Areas. Such legislation could potentially promote aboriginal communities to designate some of their lands as protected areas.

Land claim agreements rank second in precedence behind the Canadian constitution and before any federal, provincial or territorial legislation. Where there may be conflicts between provisions of government legislation and land claim agreements, the land claim would prevail, although it may take the courts to resolve disputes. Land claims have been negotiated to establish government-aboriginal co-management mechanisms, but as yet have not specifically enabled the establishment of protected areas solely under community authority.

Nunavut is the geographically largest territorial or provincial jurisdiction in Canada, covering more than 1.9 million square kilometres. It is entirely within the Arctic tundra ecosystem, although Arctic tundra occurs in the northern most parts of several other provinces and territories. Nunavut contains more than 40% of Canada's ocean coastline. Nunavut was created on April 1, 1999, as requested under the Nunavut Land Claim Agreement (NLCA) between the Inuit of Nunavut and the Government of Canada, signed in 1993.

In addition to providing for the creation of Nunavut, recognizing Inuit ownership of about 18% of the land surface of Nunavut, and providing a financial settlement with the Inuit, the NLCA also created five institutions of public government responsible for land, wildlife and resource management in Nunavut (Table 3).

Table 3. Co-management institutions of public government established under the provisions of the 1993 Nunavut Land Claim Agreement

| Institution of public government | General responsibilities and role |
|---|---|
| Nunavut Wildlife Management Board (NWMB) | Wildlife and habitat management and conservation, and regulation of access to wildlife |
| Nunavut Planning Commission (NPC) | Establishment of policies, priorities and plans that guide and direct resource use and development through a public consultation process |
| Nunavut Impact Review Board (NIRB) | Review and set terms and conditions for development projects based on mainly environmental impacts |
| Nunavut Water Board (NWB) | Regulation, use and management of water |
| Surface Rights Tribunal (SRT) | Resolution of disputes over access to IOL for access to sub-surface resources, and determination of compensation to surface rights holders |

All of these institutions are composed of equal numbers of representatives from government and Inuit. The main territorial-wide representative of the Inuit is Nunavut Tunngavik Inc. (NTI), although administration of Inuit-owned lands (IOLs) is delegated to three Regional Inuit Organizations (RIOs).

In the review of a proposed project, the NPC, NIRB and NWB work together. The NPC reviews a project to determine if it conforms to approved land use plans. The NPC then forwards the proposal and its determination and recommendations to NIRB, the NWB or both. NIRB and NWB coordinate their reviews and screenings before setting terms and conditions for approved proposals.

In addition to the above institutions, RIOs review project proposals, set terms and conditions and provide permits for any proposals that may involve IOLs.

Currently, there are two approved land use plans in Nunavut, the Kivalliq and North Baffin Land Use Plans. Two other regional plans for the remainder of Nunavut are in progress. With strong community input into these plans, Inuit had significant opportunities to identify lands and waters that require some level of protection and conservation.

In the Kivalliq Land Use Plan, caribou calving areas and water crossing are given protection. For example, exploration and other activities are prohibited in these areas from May 15 to July 15 if caribou are in the vicinity. Several of these areas are on IOLs and the RIO ensures that these restrictions are followed.

Many of the important ecosystems that Inuit wanted protected were identified during the NLCA negotiations. In order to expand the areas that could receive long-term protection before the areas included in IOLs, Inuit agreed to the establishment of several new National Parks and National Wildlife Areas and Territorial Parks, in addition to those that existed previously. For all such protected areas, the NLCA required that the responsible government departments and agencies sign Inuit Impacts and Benefits Agreements (IIBAs) through which Inuit could require mechanisms for co-management within these areas, as well as to ensure their continuing rights to access them for traditional activities, including harvesting. Several IIBAs for National Wildlife Areas are still under negotiation. Where IIBAs are in place, several areas that could have been designated as de facto CCAs now lie within larger co-managed areas.

### 4.1.1 The Nunavut Wildlife Management Board: The Main Institution for Conservation of Biodiversity in Nunavut

The NWMB has the mandate to ensure the protection and wise use of wildlife and wildlife habitat for the long-term benefit of Inuit and other residents of Nunavut and Canada. Under the NLCA, “wildlife” includes all living plants and animals in Nunavut. The NLCA recognized that Inuit systems of wildlife management contribute to conservation of wildlife and protection of wildlife habitat, and the need to provide an effective role for Inuit in all aspects of wildlife management.

The NWMB is a co-management board composed of nine members with four appointed by Inuit organizations, three by the federal government and one by the territorial government. The ninth member holds the position of Chair and Chief Executive Officer,

and is selected by the other eight members. The NWMB has many specific responsibilities, but some particularly relevant to protected area and biodiversity conservation are:

1. Establishing, modifying or removing quotas and non-quota limitations (NQLs) on wildlife harvesting,
2. Approving plans for the management and protection of particular wildlife or wildlife habitats,
3. Approving changes to boundaries of Conservation Areas that relate to the management and protection of wildlife and wildlife habitat,
4. Approving the designation of rare, threatened and endangered species,
5. Identifying wildlife management zones and areas of high biological productivity, and making recommendations on planning matters in that area,
6. Advising governments and other agencies on compensation that should come from developers who damage wildlife habitat,
7. Providing advice and recommendations to the government on Marine Zones, and
8. Identifying, funding and participating wildlife management research requirements.

The NLCA also provides for local Hunters and Trappers Organizations (HTOs), representing the Inuit in each community. The Chairs of HTOs work together within three Regional Wildlife Organizations (RWOs), which coordinate issues of interest to more than one community. Local HTOs can develop their own non-quota limitations (NQLs) through local by-laws, which can then be passed on to the NWMB for approval.
NQLs may regulate hunting seasons and areas, sex and age selection, harvesting methods and similar issues, but NQLs set by HTOs and RWOs can only apply to Inuit, which would be adequate for species that only Inuit may harvest (e.g., polar bears, narwhal, beluga, bowhead whales). In order for NQLs to apply to non-Inuit for other species (e.g., caribou, arctic char, ringed seals), governments must enact regulations making the NQLs applicable to non-Inuit.

Several HTOs have taken steps to begin incorporating traditional ways of conserving wildlife as NQLs through their by-laws. Although NQLs vary between communities and between species of wildlife, some examples of NQLs for narwhal include:

1. Minimum equipment standards (e.g., rifle calibres, harpoons, floats and hooks).
2. Standards for quick killing, efforts for retrieval, and minimizing wastage.
3. Prohibitions on harvesting calves and females with calves, and using calves to lure other narwhal.
4. Regulation of the types of habitats where harvesting may occur during certain period dates (e.g., only within ice cracks and not at the floe edge).
5. Limitations on the number of narwhals that may be harvested by a hunter each day, by the community during a three-year period and others that are restrictions additional to government regulations
6. Ability of the HTO Board to stop harvesting activity for conservation or hunter safety reasons.
7. Need for inexperienced hunters to hunt with experienced ones, and other forms of hunter education.
8. Penalties that can be applied to hunters violating the NQLs.

**Box 2. Does true co-management exist in Nunavut?**

The co-management system in Nunavut usually involves extensive consultations with Inuit communities, and many co-management decisions are reached without serious disputes. Nevertheless, L. Manoz, Director of Lands for the Kivalliq Inuit Association, expressed an emphatic answer to the above question. He stated that if co-management is supposed mean equal roles in decision making with the Inuit and government reaching consensus, then there is no real co-management of land, resources and wildlife in Nunavut.

Although the NWMB and other institutions of public government are described as decision-making bodies, the federal and territorial government Ministers retain the ultimate responsibility for land, resource and wildlife management. For example, once the NWMB makes an initial decision, the appropriate federal or territorial Minister can accept or reject that decision. If the decision is accepted, then it becomes final and the Minister is responsible for making applicable regulation changes. If the Minister rejects the initial decision, the NWMB will respond with a 'final' decision based on its review of the Minister's written reasons for rejection. Subsequently, the Minister will accept, reject or vary the NWMB's 'final' decision.

Since 1993, there have been several cases in which government Ministers have rejected or varied the NWMB's 'final' decision. These have included varying allocations of shrimp quotas in waters adjacent to Nunavut for other jurisdictions, and rejection of a permit for an Inuit hunter to harvest a polar bear by traditional means. In some cases when Ministers have varied or rejected the NWMB's final decision, NTI has taken Ministers to court for allegedly violating the terms of the NLCA, and has won some cases.

Contentious issues also arise within co-managed protected areas. For more than 100 years, Inuit have carried firearms and other weapons to harvest wildlife, and to protect themselves and visitors that they guide from polar and grizzly bears within the areas now encompassed by National Parks. Protection of themselves and visitors against all hazards is extremely important to Inuit guides, and the use of firearms and other methods is considered a very long staying tradition. Although Parks Canada allows Inuit to carry firearms for traditional harvesting of wildlife in National Parks, they have apparently decided that guiding is not a traditional activity, and have stopped Inuit from carrying firearms to protect visitors that they may guide in National Parks. In some cases, Inuit guides believe that this is too risky not to carry a firearm, and therefore do not take tourists into some parks. At the same time, Parks Canada may give permits to researchers in National Parks so that they can protect themselves from dangerous wildlife.

From an Inuit perspective, there have been inequities in the roles that they have as co-management partners. Depending on future actions by governments, the current co-management system could move more toward the traditional non-argumentative, consensus-building processes that Inuit used for 1000s of years to management their ancestral Community Conserved Areas, or alternatively toward a series of acrimonious debates and adversarial legal cases.

### 4.2. Russia

The Russian Federation has probably the strongest potential law within the entire Arctic that could protect Community Conserved Areas. Unfortunately, other laws and legal conditions largely disable actual implementation of a law that would enable legal establishment of Territories of the Traditional Use of Nature (TTUNs) by Indigenous Small Peoples.

When and if implemented, TTUNs would have the capacity to legally protect most de

facto CCAs in the Russian Arctic. The purposes of the law are for:

- Protection the traditional environment and livelihood of indigenous small peoples,
- Protection and development of traditional culture, and
- Protection of traditional ways of using natural resources and biodiversity.

The sizes and borders of TTUNs must be sufficient:

- To support reproduction and protection of the biodiversity of plants and animals,
- For local/indigenous people to utilize nature,
- To protect historically developed social and cultural relationships of indigenous peoples, and
- To protect the integrity of objects of historical, cultural inheritance.

The borders must be determined by federal, regional and local organizations.

TTUNs could be designated to include a wide variety of CCAs. In the legislation, the following are specifically listed:

- Inhabited areas, such as villages, houses, and temporary camps of hunters, fishers and reindeer herders.
- Lands and waters used for traditional land uses, such as reindeer herding, hunting, fishing on rivers, lakes and the sea, and gathering of wild plants.
- Properties of cultural, historical and religious/spiritual significance, such as spiritual buildings and constructions, ancient villages, burial grounds, and other heritage objects, and
- Any other potential areas or objects that may be recognized by laws of the Russian Federation or its regions.

The federal law gives a clear role to the indigenous members and organizations of the local communities in establishing laws or regulations for each TTUN. Although the laws governing the use of resources with a TTUN must be in agreement with the laws of the Federation and regional governments, the regulations of the TTUNs are to be based on the traditions of the local indigenous communities. The clauses on the legal regime governing TTUNs seem to allow for either community management of resources or co-management with regional governments, depending on agreements that may be reached with those governments. Other residents, businesses and organizations may also use a TTUN as long as that use is permitted by regulations of the TTUN.

Ownership of the lands and waters within TTUNs is not given to the indigenous peoples; nevertheless, the use of resources within the TTUNs is given freely to members of the applicable indigenous people.

Despite this unique legislation showing the intent of the Russian Federation to recognize the special role and resource needs of its indigenous peoples, several complex issues have largely prevented its successful implementation on the ground. Some of the less complicated issues are:

- Yakuts and Komi peoples are excluded from establishing TTUNs because they are not indigenous small peoples, having populations of more than 50,000.
- Federal law recognizing the rights of indigenous peoples do not include mechanisms for the enforcement of those rights.
- The federal Land Code excludes representatives of indigenous peoples and their communities from being holders of land tenure rights, allowing the state and others to own lands where indigenous peoples utilize the resources.
- Establishment of TTUNs is left to regional governments; which may have little interest or motivation.

- There is no legal definition of “traditional”, or standardized methods of establishing community membership,
- All regional governments must agree on all boundaries and regulations for any TTUN that involved more than one jurisdiction.
- The law allows state and municipal governments to withdraw both lands and natural resources from TTUNs. Although the indigenous people and communities are to be compensated for expenses, and with equal lands or other resources, there is little assurance that the compensation would adequately meet their traditional needs and uses.
- Within the federal Land Code, TTUNs are Specially Protected Territories, while most lands used by indigenous peoples are within land categories where development is allowed.
- Land uses by non-indigenous people and developers are not given to indigenous communities for review, and government administrations tend to promote much needed economic development.

**Figure 10. Ilulissat Icefjord, Greenland, a World Heritage Site previously conserved by the local community, but now co-managed with the Greenland Home Rule Government.**
**From: whc.unesco.org/en/list/1149/gallery/**

**Box 3. Local conservation of biodiversity in Greenland**

Municipalities in Greenland may pass local ordinances that can protect locally important areas from certain types of development (e.g., mining) while allowing traditional and other activities through land use zoning. In addition, they may pass local regulations that restrict harvesting of wildlife to a greater degree than national regulations. For narwhal and beluga harvesting, Qaanaaq is the only Municipality to do so. In the Qaanaaq hunting areas, narwhal and belugas may be hunted only from kayaks using traditional hand held harpoons and floats. This keeps the traditional knowledge and skills alive, and helps to keep the harvest sustainable by minimizing losses due to sinkage.

Greenland has developed extensive autonomy in its national affairs from Denmark, which still claims Greenland as part of its territory. Protected areas come under the jurisdiction on the Ministry of Environment and Nature of the Greenland Home Rule Government through the Nature Conservation Act.

Municipalities may pass ordinances to govern local affairs with respect to Environment and Nature, as well as other issues. To protect sensitive and important local areas, municipalities may adopt land use plans beyond the immediate boundaries of the developed area through ordinances. They usually do so with the technical support and expertise available through the Home Rule Government. An example of such local protection is the Ilulissat Icefjord, a natural World Heritage Site. The land use plan prohibits mining within the site. However, it is difficult to classify this as a CCA. With Ilulissat Icefjord becoming a World Heritage Site, the Municipality agreed to accept a co-management arrangement with the Greenland Home Rule Government.

Wildlife harvesting quotas are set through the Ministry of Fisheries, Hunting and Agriculture of the Home Role Government, after considering scientific advice usually through the Greenland Institute of Natural Resources, and consulting the Hunting Council. The Hunting Council is made up of representatives from the Organization of Fishermen and Hunters, the Organization of Leisure Hunters, and the Association of Municipalities. It is the Cabinet of the Home Rule Government that approves the total species quotas for the whole of Greenland.

Once Cabinet has approved the quotas, the Ministry of Fisheries, Hunting and Agriculture divides each quota among the Municipalities entitled to hunt the animals. Each Municipality then has the authority to divide the quota among the individual hunters.

In addition to the quotas for each species, the Cabinet's Executive Order may have restrictions concerning maximum hunting seasons, means of transport, and other aspects of harvesting. If it wishes, a Municipality may make additional regulations that are stricter than the national executive order. Qaanaaq in northwestern most Greenland is unique in that the Municipality has chosen to restrict the harvesting of narwhal and beluga based on traditional methods.

## 5. Community Conserved Area Effectiveness and Threats in the Arctic

### 5.1. Obstacles to Indigenous Conservation of Arctic Biodiversity

A discussion of de facto or de jure CCAs must be placed in the context of the difficulty of any biodiversity conservation in the Arctic and the difficulties faced by Arctic indigenous peoples. Current measures of biodiversity are largely quantitative and often detailed, and require standardized mechanisms for sharing and exchange at international and national levels. Indigenous knowledge is both quantitative and qualitative, and relatively little of it is documented in forms that are readily communicated outside of indigenous cultures. This issue of sharing and communication is especially problematic in the Arctic because of the remoteness, inadequate communications, and small, widely scattered, dispersed indigenous populations across this ecosystem. The low-density dispersion of Arctic peoples ensured the sustainability of their lifestyles that had been dependent entirely on local indigenous resources. Today, that same low-density dispersion is an obstacle to both recognition and acceptance of their knowledge and customary practices by southern governments, and maintenance of their own knowledge and practice systems, especially since extensive settling of these traditionally nomadic peoples.

### 5.2. Nunavut, Canada

In the Canadian Arctic, a progression of southern domination of both hunting practices and government regulations without regard to customary practices of the Inuit led to a history in which Inuit elders may feel powerless to push the use of customary practices and hunters became less knowledgeable and skilled at using such practices. Commercial whalers and fur traders hired Inuit and instructed them to use foreign techniques that permitted large catches. The decades or centuries of foreign commercial harvesting, government imposed harvest prohibitions or strict quotas, with little if any regard for customary practices, and other social changes may have led to degradation of traditional governance structures and cohesion that empowered the strength and adherence of Inuit practices.

Inuit traditions require that wildlife be treated with respect. Although Inuit believe that wildlife should be harvested to meet their needs, animals must not be unnecessarily and unduly harassed, harmed, mistreated, abused or made to suffer. Another way by which Inuit show respect for wildlife is to never argue, fight or speak poorly about wildlife, an important cultural value to maintain the traditional consensus decision-making system of Inuit. Traditionally Inuit believed that wildlife populations would disappear, decline or move away as a result of such inappropriate behaviour. Even from a non-Inuit viewpoint, it would be easy to see that community conflicts about harvesting could potentially lead to depletion of local populations of wildlife.

Degradation of traditional Inuit governance may continue into the future, even within current co-management structures. Today, Inuit are sometimes faced with serious internal conflicts while trying to stand-up for conservation practices based on their knowledge and opinions, when biologists, government managers, environmentalists and others persistently advocate for actions based on other types of information and points of view. In such situations, Inuit may unduly compromise or abandon their positions largely because it becomes unbearable to continue culturally unethical debates about wildlife. Those raised with other cultural values may exploit this Inuit behavioural norm, either knowingly or unknowingly, to influence decision-making when providing advice or

participating in both co-management and community-based conservation systems.

“Caribou is soul food for the way that it brings happiness to the self and togetherness to the community. Youth today do not harvest caribou as they [Qitirmuit] had to in the past and therefore do not feel the pride and self-worth that is gained in participating in a caribou harvest” (Thorpe et al. 2003).

Such statements may be easily misunderstood by people from non-indigenous cultures because in fact many young Inuit still get a great sense of pride and self-esteem from their first harvest of a particular species, providing highly desired country food to their elders, learning traditional methods of hunting and preparing food, skins and other products for family and community use and retail sale, and working together with other hunters to provide food for family and community feasts.

**Figure 10. Inuit boy learning how to skin a caribou.**
From: openlearn.open.ac.uk/mod/resource/view.php?id=167673

As Pauloosie Kilabuk of Iqaluit said, “I don’t hunt just for me. I hunt for other people. I go out and get a caribou and I feel good about myself. It keeps me close to the men I hunt with. I make my parents, kids, relatives, and friends happy because they don’t have caribou sometimes, and we all come together and share the meat. Caribou is more important than seal to keep my family and community together. With a caribou you can get four or five families together. What is a community feast without caribou?” (Ferguson 1989, p. 149)

Yet, statements about the youth and how they hunt do clearly indicate the sense of change or acculturation that Inuit elders feel is affecting their society and culture. Elders in many indigenous societies are trying to emphasize the importance of retaining their connection and familiarity with such traditional activities as a mechanism by which to retain their indigenous knowledge and ways of conserving resources and the

environment and culture as a whole.

“The elders and hunters recognize that the ignorance of traditional ways and laws are part of the problems today.” (Kilabuk, 1998, p. 57)

One process that has led to the loss of traditional knowledge and laws are major declines of wildlife populations caused by past market hunting to satisfy consumer demand largely from western Europe, and subsequent government restrictions and prohibitions on harvesting. From the 1500s to the 1800s commercial whaling to satisfy European markets reduced the populations of bowhead whales in the eastern Canadian Arctic to the point that by the early 1900s, commercial whaling of bowheads became impossible. One population in Baffin Bay probably numbered about 11,000 in 1825, while almost 29,000 where taken commercially from 1719 to 1915 when commercial hunting finally ended. The federal government did not prohibit Inuit from hunting the bowhead until 1979, but before that many Inuit had thought that it was illegal because of discouragement by traders, police and government administrators. From 1915 to 1979, about 40 bowheads were known to have died due to strandings or Inuit hunting. The greatly reduced opportunity for Inuit to continue their traditional hunts of bowheads after commercial whaling, and both perceived and real government prohibitions has depleted Inuit knowledge about these whales.

Because of reduced use of traditional knowledge and the adoption of modern equipment, hunters today tend to compete with each other, especially for species and populations with relatively small quotas near larger communities. In Clearwater Fiord, a beluga calving area, there were sometimes 3 times as many hunters as the quota of whales. The competition has led to rushed hunting practices.

“By adopting and abiding by the practices of Traditional Knowledge, the elders feel that once again the hunters could re-establish a harmonious relationship with the Beluga whales.” (Kilabuk, 1998, p. 4)

Motorized boats became available to Inuit on Baffin Island in the 1960s to hunt whales. At about the same time, snowmobiles became available for hunting whales from the sea ice. Rifles had been introduced in the 1920s and 1930s, but did not lead to increased harvests because bullets were in limited supply. After the 1960s, kayaks and harpoons were used less often and are very rarely if ever used today. Motorized boats have caused some changes in the distribution and behaviour of whales especially in waters near communities and outpost camps. In some areas, elders suggest that whales seem to be less fat perhaps partially because of their extra movements to avoid areas where motorized boats are used.

In some areas, traders and other enterprises organized commercial hunts, which depleted whale populations. Although harvests may have since been reduced through government regulations, the continuing need of Inuit to harvest whales for subsistent and cultural purposes has slowed or prevented recovery of populations from previous overexploitation caused by demand from Europe and elsewhere with profits going to owners of enterprises outside the Arctic. An example of such commercial harvesting were “drive-in” hunts of belugas and narwhals in Cumberland Sound organized by the Hudson’s Bay Company until the 1940s. Drive-in hunts involved boats driving whales toward shore at high tide, and holding them until stranded on the tidal flats at low tide when they would be killed. This is a type of hunt that differs greatly from Inuit hunting

from kayaks with harpoons, and from modern boats with rifles, to meet their own needs. Smaller commercial hunting continued until 1979. Populations appeared to decline after that probably because the reduced population could not support even a lower harvest. In recent years, hunters have noticed some increase in the number of belugas.

Indigenous knowledge provides important information to conserve wildlife resources during harvesting. For example, during April to August belugas in Cumberland Sound have sufficient fat to float after being killed, but in September and later months they will not float. Harvesting during months when marine mammals float minimizes harvesting losses and reduces the total kill.

### 5.3. Russia

The first impacts of Russia society on indigenous peoples of the North were felt in the 1500s. As the Russian Empire moved into Siberia, the indigenous peoples lost traditional access to wild reindeer, fish and other resources with the gradual immigration of Russians and others into the ancestral lands of the indigenous peoples. For example, it may not be coincidental that large-scale reindeer herding evolved among the Nenets within 200 years of the construction of a Russian fortress in the Pechora valley. However, the Russian Empire usually did not impose restrictions on the hunting, herding and land uses, other than through competition for land and resources, and taxation. Most of the indigenous peoples continued to use the land based on their traditional family clan and other systems into the 1900s.

The socialist revolution of 1917 did not impact the indigenous peoples of the Russian Arctic until the collectivization of agriculture beginning in 1929. This affected all reindeer herding, hunting, trapping and fishing. In 1926-27 there were 2.2 million domesticated reindeer in Russia, all privately owned. Among most indigenous peoples, each reindeer was usually privately owned, while they were herded together on lands shared by extended family or other social community units. These systems ended in the 1930s as the state ended private ownership. The process of collectivization led to some chaos in Russian reindeer husbandry so that by 1934 there were only 1.4 million domesticated reindeer in the country. Gradually, the soviet system rebuilt the population of domestic reindeer, reaching 2.4 million animals in 1969.

The reindeer herding industry was thrown into chaos again in the 1990s when collectivization of agriculture was ended through political and economic reforms. This coincided with a broad downturn in the Russian economy. By 2002, the industry had collapsed to a new low of only 1.2 million reindeer, 48% of the 1969 maximum.

#### 5.3.1. The Nenets of the Nenets Autonomous Okrug

The Nenets initially resisted collectivization and refused to join kolkhozes (collective farms) and sovlhozes (state farms). A divergence arose as poorer herders started to join the farms and richer herders resisted. Eventually essentially all joined as taxes and prices for goods increased for private owners, and some owners were imprisoned. Some rich owners slaughtered their herds rather than turn them over to the farms; many of which were mismanaged by less skilled herders. The majority of the herds were collectivized by 1940, although a few remained on the tundra. It was also during this period that hunting, fishing and herding families were moved into settlements, largely with inadequate housing. Changes in the herding progressively affected Nenet society.

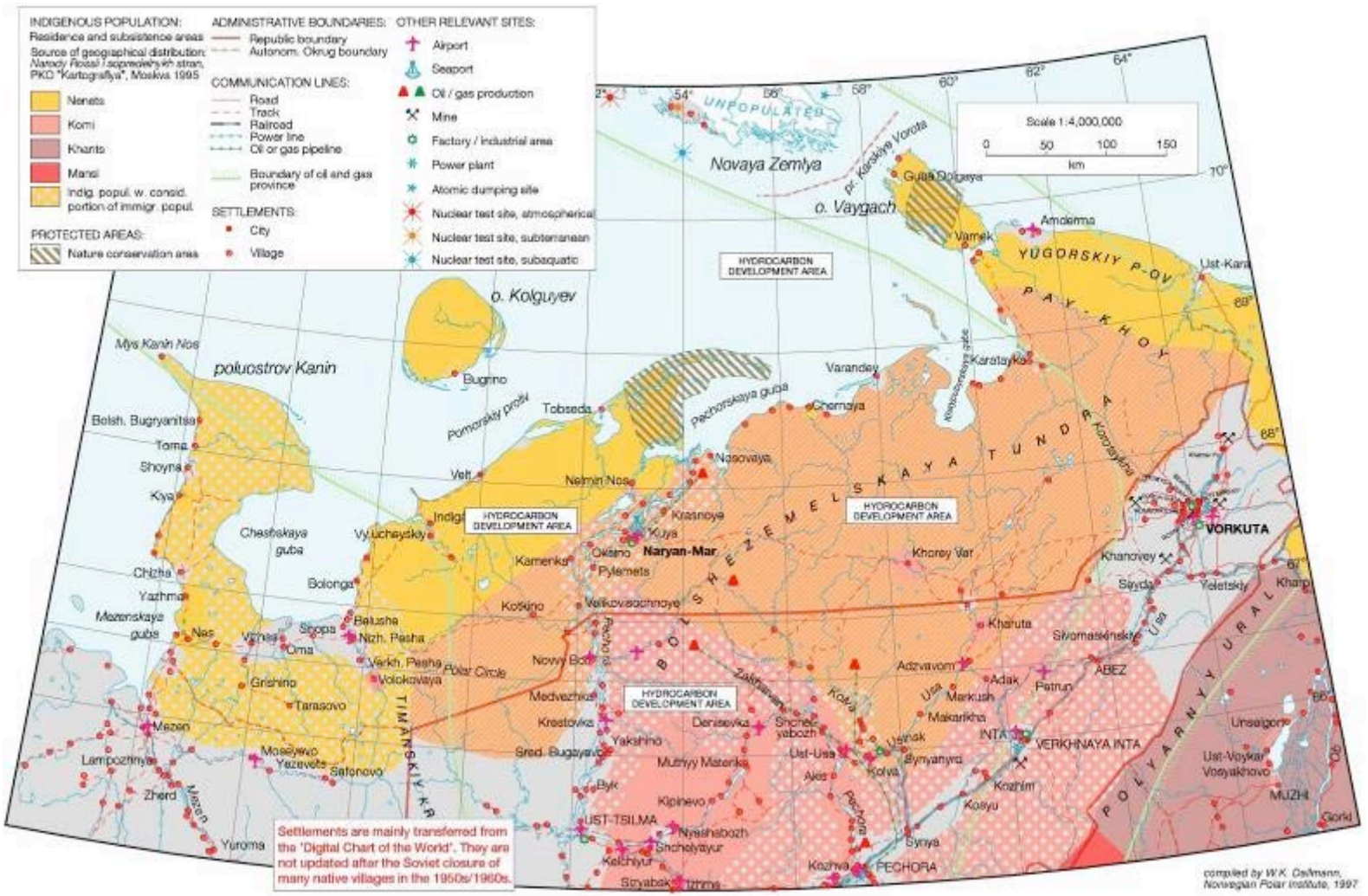


**Figure 12. Traditional land use areas of indigenous peoples, and non-indigenous land use in the Nenets Autonomous Okrug.**
From: miljo.npolar.no/temakart/pages/homeE.asp?letter=R

Farms and villages were amalgamated into large units, with many villages closing, and the remaining ones becoming farther from the herding ranges. Elders, women and children of herding families were progressively moved into distant villages and towns. State education of children began with the children of herders remaining in the villages from the ages of 10 to 14 years old. By the 1960s, children's education increased to 8 years and then to 11 years in the 1970s and 1980s. Children were on the tundra only in the summer, and became ill-prepared for year-round herding. Men started spending as much time in the villages as possible, while women and children rarely had to go out onto the tundra. Children were engrained with soviet values, and came to prefer village life to the life of a herder.

With collectivization, reindeer herding itself also changed. The primary objective became meat production for the general society of Russia, as opposed to an array of products to meet the traditional needs of the Nenets themselves. Herders became employees of the farms with benefits shared among the entire farm, so the benefits of individual initiative and effort in the traditional system were lost. Mechanized transportation became used increasingly. The state required a higher ratio of female to male reindeer, which changed the social dynamics within the reindeer herds. Some herds had to be driven several 100 km to a centralized slaughter facility, which decreased the amount and quality of meat. Although herders maintained intimate knowledge of the reindeer and their habitats, this was sometimes undermined when farm managers assigned herders to different herds and areas, which also caused some social difficulties. Herders lost touch with their traditional ways of reindeer herding that had been sustainable with little external support, unlike the soviet model of reindeer herding.

By the late 1980s, only a few elders could remember living within the pre-soviet traditional herding system and culture of the Nenets. The collective farms were the center of the Nenet society and way of life.

**Figure 13. Nenets moving their reindeer across the tundra during winter.**
From: www.nenets.ru

The economic reforms of the 1990s brought another major change in the lives of the Nenets and other indigenous peoples. The collective farms supported by government

were abolished, and most were restructured as agricultural cooperatives. The herders and other members had shares in their farm, and were supposed to be paid according to their contribution to the productivity of the farm. The farms became free to schedule their migrations, but not their migration routes. As well, they could chose to have their animals slaughtered at the central slaughter house in the Okrug, on the tundra as in pre-soviet times, or at slaughter houses in adjacent regions. They were also free to sell their products to any available retailer.

One collective farm was split up, so that some families could own their reindeer. These families formed the “Yerv” union of private herders and herded their animals together. Yerv hired trusted administrators to handle the market economic aspects. Like the Murmansk Oblast where Saami herd reindeer, the Nenets Okrug put limits on the number of reindeer that any individual may own, and charged extra fees for grazing of personal reindeer, so a return to traditional personal ownership of reindeer is still discouraged.

The Russian economic collapse of the 1990s caused serious problems for all reindeer herders despite subsidies from the Okrug administration. Life became very difficult for herders. They could not return to the villages to see their families or to get supplies because mechanized travel was now too expensive. The farm administrators did not like some attempts by herders to have more draft animals to assist with transportation because that reduced meat production. The vast array of problems combined to cause a large decline in the numbers of domesticated reindeer through the 1990s.

**Figure 14. Abandoned oil exploration site in reindeer herding areas in the Nenets Autonomous Okrug.** **From: npolar.no/ipy%2Dnenets/main%20pages/frame.html**

Oil exploration began in the 1960s, which disturbed the traditional pastures and migration routes of the reindeer. Oil workers poached some reindeer. Exploration sites were not cleaned up which resulted in long-term damage to habitats and hazards on the tundra.

In the late 1990s, major activities in oil and gas started in the Okrug with increased exploration, new fields coming into production, development of a oil sea terminal and pipeline construction. The Okrug receives compensation from the oil companies for the lands that they use, but little of it is distributed to the farms. On the other hand, some reindeer herding groups have signed their own agreements with oil companies. Yerv has received considerable amounts of financial advances.

Despite the generally improved economy in the Okrug, collective farms are still facing significant problems. Herders are not being paid and are losing interest in tending their herds. As a result, the number of reindeer continues to decline.

Since 2000, there has been some evidence of an increasing resurgence in more traditional family-based structures for reindeer herding. In Nelmin Nos, two family obshchinas (communes) emerged and later merged into one. They then secured rights to use a territory for herding, fishing and hunting. Despite their small herd of reindeer, there have managed to live on the production of the herd and their territory. At least one other obshchina has emerged, having left a farm.

**Figure 15. Oil drilling rigs and vehicle tracks in reindeer herding areas in the Nenets Autonomous Okrug.** **From: npolar.no/ipy%2Dnenets/main%20pages/frame.html**

### 5.3.2. The Saami of the Murmansk Oblast

The Saami in northwest Russia have experienced major displacement for more than 70 years. Since 1932, reindeer herding, hunting and fishing has been excluded from a 100 km wide zone along the Finnish and Norwegian border zone. The Arctic tundra coastal zone remains closed to reindeer herding. After World War II, the Skolt Saami who occupied an area that straddled the boundary with Finland were forced to chose to live in either Russia or Finland when the border closed. Within Russia, the Soviet government closed 22 Saami villages in the Murmansk Oblast and forced all residents to move to Lovozero. As a result, the Saami of northwest Russia have lost much of their cultural and knowledge connections with their former lands. Unfortunately this trend has not stopped.

The Murmansk Oblast has been a major mining and smelting centre since the 1930s, and is subjected to some of the most intense heavy metal pollution in the world. Visible damage to vegetation, including near total loss of vegetation and soil, has been documented up to 50 km from smelters at Nikel and Monchegorsk, with non-visible damage to vegetation documented up to 150 km from the smelters. The area of lichen-dominated habitat, critical for reindeer herding by Saami, declined from 3,000 sq km in 1973 to only 500 sq km in 1988. A new platinum, palladium and gold mine on the Kola Peninsula about 50 km from Lovozero is in early development by the Canadian company, Barrick Gold, near the important salmon river, the Ponoi. The Oblast has one of the two highest cancer incidence rates in the Russian Federation.

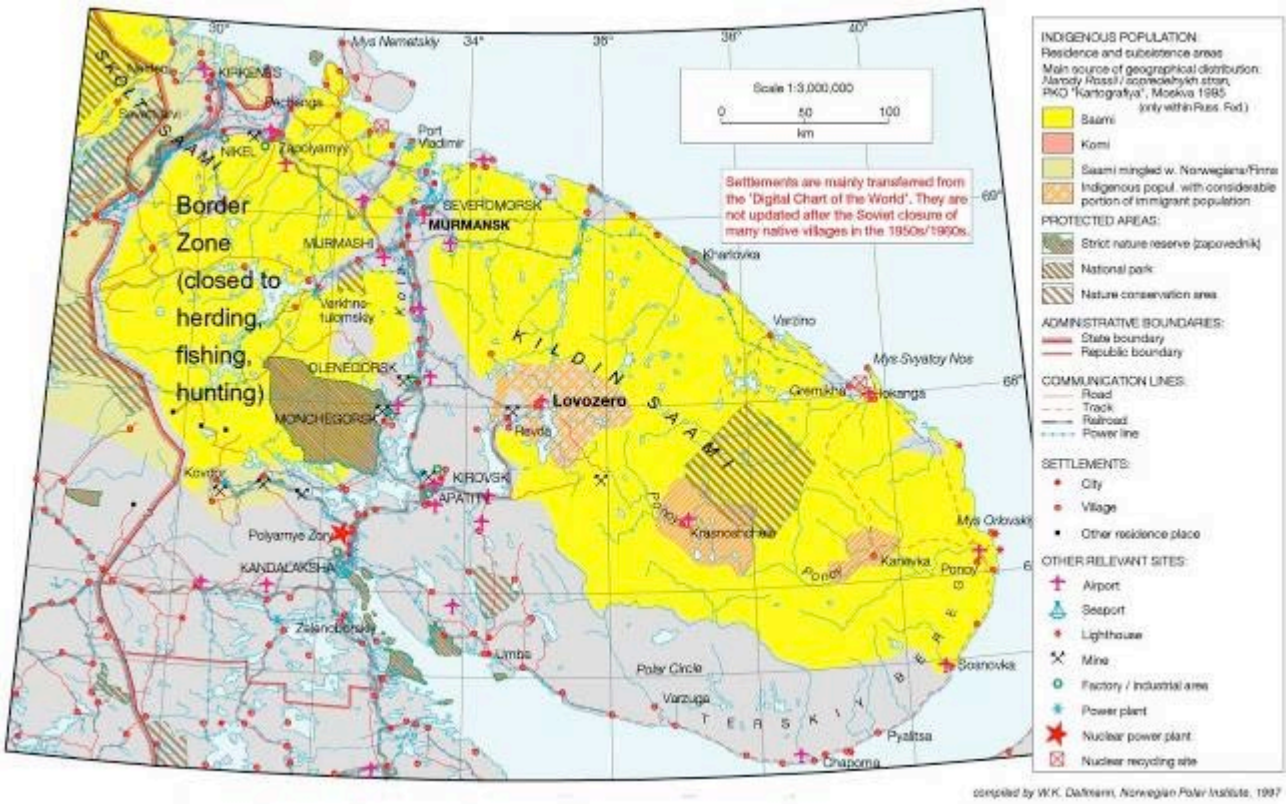


**Figure 11. Traditional land use areas of the Saami (about 1945), and non-indigenous land use in the Murmansk Oblast.** **From: miljo.npolar.no/temakart/pages/homeE.asp?letter=R**

Russia's only profitable reindeer herding operation is threatened with a new potential hardship. The Murmansk Oblast is proposing to relocate funds given to reindeer herders to other agricultural users. V. Startsev, Director of "Tundra" in Lovozero, wondered, "How can the reindeer breeding – the only preserved traditional industry of the regional indigenous people – survive with this kind of financing?" (Anonymous 2007). "Tundra" uses its profits to maintain other employment activities in the community (e.g., making traditional clothing).

Reindeer herders and their families are economically poor compared to industrial and other workers in the Murmansk Oblast, despite a 34% increase in the average salary of Tundra's employees in 2000 compared to 1999. Reindeer herders earn more than other workers, but it also depends on the production of each brigade; herders in one brigade averaged $110 USD per month, while herders in another one averaged only $90 in 2000. Tchum-workers make and sell reindeer clothing and footwear for the cooperative, and average $60 USD per month.

The Saami of Lovozero have no legal land ownership rights that is recognized by governments at either the regional or federal levels in Russia. "Tundra" does have rights to use lands for reindeer herding. In addition, six of the 14 cultural sub-groups of Saami within Lovozero what to become involved in reindeer herding independent from the cooperative. Only one of these sub-groups, Piras ("family"), has obtained grazing rights to use a land area that they do not own. The other five sub-groups have applied for similar rights, but these have not been approved. As with some Nenets, it appears that some Saami want to return to more traditional forms of owning and herding reindeer. The Saami community may also be somewhat divided as it is composed of Saami from more than 20 small communities that exited before the soviet era.

The Saami of Kola Peninsula have lost access to their traditional salmon fishing areas that they had used in sustainable ways for 1000s of years on rivers, like the Ponoi. Local regulations implemented by the Oblast government favour international sport fishing operations which have exclusive rights to fish major sections of rivers formally used by Saami. Despite the recognition of traditional use of natural resources in Russian legislation, reality of the ground threatens to erode that use, which is the basis of continuing the societal relevance of the underlying indigenous knowledge and customary practices. In recent times, the Saami have become poachers within their traditional fishing areas, and in some cases blamed for the past decline of salmon. At the same time, international sports fishers have been taking credit for working with the Oblast government to rebuild salmon stocks.

In the Soviet era, the environmentally and culturally important area of Seidjarv was a federally recognized protected area for community use. However, after 1991, it lost this status. In 2003, the community negotiated to have the area recognized as a state nature reserve under the administration of the Murmansk Oblast. The Oblast administration believed that this action would save the area. However, there have been significant tourism impacts on the site subsequently, so that the community now regrets having made the agreement.

Table 4. A 'Google' sampling of international and Russian businesses selling fishing tours on the Kola Peninsula, where Saami are excluded from traditional fishing areas.

| Company | Country | Web link |
|---|---|---|
| Angling Classics | UK | www.anglingclassics.co.uk/Kola.html |
| Emerald Water Anglers | USA | www.emeraldwateranglers.com/russia_kola.html |
| Extreme Travel Adventures | USA | www.rusad.com/index.asp?id=103 |
| Fishing North Kolaresor | Sweden | www.fishingnorth.com/kolatravel.htm |
| Fly Fishing Finland | Finland | www.flyfishingfinland.com/englanti_trips.htm |
| Frontiers International Travel / Ponoi River Co. | USA and UK | www.frontierstravel.com/LocationDtl.cfm?LocationID=3 and www.ponoiriver.com |
| InterJet Tours | Bulgaria | www.interjet-bg.com/info.php?m_id=30 |
| Kola Flies | UK | www.kolaflies.com |
| Kola River Marketing Co. Inc. | USA | www.kolarivers.com |
| Kola Travel Pic | Russia | www.kolatravel.com/index5.htm |
| Penguin Travel | Denmark, Sweden, Norway, and Bulgaria | www.penguin.dk/products.aspx?productid=91&language=en |
| The Northern Rivers Company / The Atlantic Salmon Reserve | Russia | www.kharlovka.com/news.html |

In the 1990s, the economy of the mining town Revda, about 18 km from Seidjarv, went into a down-turn, resulting in people from that area poaching fish in Seidjarv. Poachers also illegally built houses in the area. The media started reporting about the Saami sacred aspects of Seidjarv, leading to a large number of "scientific expeditions" into the sacred area, and the destruction of trees and other features. Through a 2003 agreement between the Oblast and the Saami, the area has been protected as a state nature reserve. International volunteers have done some restoration work in the area. Nevertheless, since the 2003 agreement, tourists have been trampling, littering and otherwise damaging this important environmental and cultural area, which has caused much concern among the Saami.

Both Saami and non-indigenous peoples have harvested the mountain birch ecotone forests of the Kola Peninsula, the latter lacking an intimate understanding of the fragility of these northern forests and the methods for ensuring their sustainability based on Saami experiences over the millennia. Saami Access to the wood of the boreal forest to the south that they used to augment their harvest of birch has been greatly reduced, putting the birch forests under increased pressure and competition from the Saami themselves. Continued use of these forests by Saami is required to maintain some level of related knowledge and cultures.

## 6. Opportunities and needs for Community Conserved Areas in the Arctic

### 6.1. Nunavut, Canada

The southern school system was introduced across the Canadian Arctic tundra largely since the late 1950s and 1960s. This school system removed Inuit children from their parents at ages when children would have traditionally spent much of their time watching, learning and mastering their customary knowledge and skills for hunting, and developing an intimate understanding of the plants, animals and other environmental features that had supported or affected Inuit ways of life for 1000s of years. In some cases, children moved long distances to residential schools, from where they could see and learn from their elders only once or twice a year. Even when children were only several 10s or 100s of km away from traditional seasonal homes, they would spend several months away from their families. In most cases since the 1950s, Inuit children have been able to learn from their elders on the land only during summer. However, this is a very short period because ice break-up usually takes 3-4 weeks during summer, keeping many families in their communities.

Before the mid-1970s as more housing became available in communities, many parents and elders remained within the traditional home areas. That created a generation of Inuit who were least educated in traditional ways because of their separation from their elders. After most older parents and elders moved into the communities, they could spent time educating grandchildren who were at the appropriate ages to be taught in traditional ways (i.e., usually 6 years and older into their teenage years if they continued to be interested). On the other hand, permanent communities were foreign environments for traditional teaching, so learning skills and knowledge by youth has often lacked first-hand exposure.

Many of the generation that was in residential schools during the 1950s to 1970s, now adults and future elders, may still have gaps in their indigenous knowledge base, as it may be considered inappropriate for elders to teach adults about things that should have been learned during childhood. Some have complained that elders give their children and grandchildren, and some researchers, information that they never received.

It is critical that Inuit and other indigenous peoples be given the resources to document the knowledge of the few remaining elders who stayed on the land until fairly recently. This should include the information and skills needed for traditional teaching, and the discipline and mental skills to transmit decades-old information accurately and appropriately.

Some elders and hunters have suggested development of written guides based on traditional hunting rules, practices and standards of conduct for each species and community. For marine mammals, these could include proper netting, butchering procedures, safety protocols, use of harpoons and floats, proper calibre bullets, and other procedures, aimed to minimize loss and wastage and to maximize safety.

In 1998, a workshop in Pangnirtung, the community that harvests belugas in Cumberland Sound and Clearwater Fiord, made several recommendations that would return some aspects of traditional harvesting, including: harvesting belugas earlier in the season at the floe edge or in summer in Cumberland Sound just before they go to the calving area in Clearwater Fiord, and to make more efforts to avoid wastage and

spoilage of muktuk and meat.

### 6.2. Russia

Indigenous organizations and communities in Russia have proposed to establish a significant number of TTUNs under the 2001 law; however, very few have been approved. Subsequently, many indigenous organizations have called for revision of the 2001 law to bring it more in line with the federal Forest and Land Codes.

Currently the State Duma of the Russian Federation is taking a different tact. A new draft law "On the protection of indigenous habitat, traditional way of life and traditional use of nature of the small indigenous peoples of the Russian Federation" is currently under committee review. The Duma's Committee on Natural Resources and Environment have pointed out several concerns about the draft law, such as:

- The provisions for local indigenous communities to have preference in access to local water resources and forests conflict with the Water and Forest Codes, which guarantee water and forest access to all or many other potential users.
- The Forest and Water Codes already protect the rights of indigenous peoples in these regards.

In late September 2007, the Committee recommended against introduction of the new law for first reading until these and other issues are addressed. It seems obvious that the Committee's view that other laws adequately protect indigenous rights is not in agreement with the views of indigenous organizations and those who proposed the new law.

**Figure 17. Nenet reindeer herding camp on the tundra in summer.**
**From: npolar.no/ipy%2Dnenets/main%20pages/frame.html**

#### 6.2.1. The Nenets of the Nenets Autonomous Okrug

After the economic crises of the 1990s, the national and regional governments are starting to increase financial support for reindeer herding. In the Nenets Autonomous

Okrug, the government has supported reindeer herding farms for 80% of their costs to move their herds to the central slaughtering facility in Naryan-Mar. Unfortunately, this support has not been sufficient to make herding a profitable industry in the Okrug.

When pasturelands are withdrawn for oil and gas exploration and development, companies usually negotiate compensation with the administration of the Okrug. In the current situation, herding enterprises receive little of the compensation. In future, the herders or the representatives need to be able to negotiate directly with the companies. The Russian Union of Reindeer Herders has a team of lawyers and other experts that could assist local enterprises in negotiating the best forms and amounts of compensation.

Federal legislation usually delegates regulation and administration of the reindeer herding to the regional level. Oddly, regional laws and administrations often lack competence on dealing with the ethnic groups within their territories. Laws and regulations are usually written in language too complicated for reindeer herders to understand and thus cannot use them to protect their interests. Some laws are incomprehensible even for legal experts. Laws clearly need to be simplified. Public consultations on the Wildlife Act in Nunavut could potentially be used as a model so that Russian herders may come to understand the laws that govern their industry and then provide input to their lawyers to propose improvements.

### 6.2.2. The Saami of the Murmansk Oblast

The “Tundra” cooperative in Lovozero began selling its meat through “Norfrys” in 2000. “Norfrys” has a license to sell its meat products to the European Economic Community. As a result, “Tundra” can sell its meat at higher prices than most other reindeer operations in Russia. In 2001, Norfry bought meat from Tundra at $2.60 USD/kg, but Tundra would like the price to go to $5.00 to ensure that the cooperative can become stable. Nevertheless, Norfry pays more than twice as much for reindeer meat than Tundra can get for its beef, which costs twice as much to produce. The beef prices are low because of the distance to available markets and the high cost of transport. Herders may also own some personal reindeer, which the cooperative will buy from them for about $2.03 USD per kg.

With some support, the Saami could take their cause to re-establish their salmon fishing rights to the international arena. Through the internet, it is relatively easy to document the international tourism agencies and fishers who are taking advantage of the imbalance in Saami – foreign fishing access. Letter writing and foreign press campaigns could be used to embarrass both foreign companies and individual fishers who proudly display their rewards from such imbalances within Russia. Given that the Saami are open to tourism in general if done in ways compatible with their values and with benefits going to their communities, then the international fishers could continue to harvest salmon on the Kola Peninsula if managed within the context of recognized CCAs.

**Figure 12. Sport fishing on the Ponoi River, Kola Peninsula, Russia.**
**Photo by A. Rivière. From: www.rilap.com/english/fly-fishing-gear.**

The Saami need to negotiate a new agreement of the Seidjarv area in order to have more direct control over tourism of the area, because the area's cultural and environmental features are not being adequately protected by the state. The Saami are not opposed to tourism per se, but they need to control and manage tourism and other activities to protect the areas cultural and biodiversity value.

In 2003 and 2004, an international environmental organization, KARP, arranged for youth to dismantle illegally built houses in the Seidjarv area. Now the community is asking for the public to stay out of the area to prevent doing more damage (http://ruslapland.ru/seida_news2.htm).

The Saami have had to resort to protecting other important sites by keeping their locations secret from the remainder of Russian society; however, this is a very insecure method as developers could damage these sites inadvertently.

Recognition of Saami methods of sustainable management birch forests through the establishment of a TTUN/CCA could potentially lead to the use of Saami traditional management to supply wood products to non-indigenous residents of the Kola Peninsula.

**Figure 19. Volunteers dismantling an illegally built house occupied by poachers in the Saami sacred area of Seidjavr (Seidozero), Kola Peninsula, Russia.** From: www.zenews.narod.ru/et182005-2/ngo.htm

## 7. Actions required for Community Conserved Areas in the Arctic

Although the concept of Community Conserved Areas is relatively new in the Arctic, it holds some promise in shifting the governance paradigm so that indigenous customary practices and their intrinsic knowledge systems may be protected in future. In our view, the needs of the Saami in northwestern Russia have more urgent needs than the other groups that we focussed on during our assessment. They are in a precarious situation, having become a very small minority (i.e., 0.2%) within their ancestral lands that have undergone extensive industrialization. They have been displaced from much of their former land base by Russian governments, and still have no secure and inalienable access or ownership rights to land and resources, despite Russian laws recognizing rights of small indigenous peoples. The Nenets may not be far behind the Saami in suffering a similar fate, as oil and other resource exploration and development accelerates across their traditional lands. Such development will likely lead to intensive immigration of non-indigenous peoples, and loss of access to their reindeer pastures, a keystone of their culture. If they cannot secure inalienable land and resource rights in the near future, their traditional way of life may become extinct. The acculturation of the Inuit in Nunavut has many similarities with that of the indigenous peoples of Russia, although it has been more recent and less intensive. As well, their economic condition apparently is not as desperate as it is for many indigenous peoples in Russia, although it is certain lower than that of southern people within Canada. The experience of the Inuit also has pointed out several potential inequalities in the co-management decision-making process that has been implemented in Nunavut.

Below we will identify several suggestions that could encourage development of CCAs in the Arctic, moving from the specific and urgent to the more general and long term needs. However, we caution readers that these suggestions have not been developed in a fully participatory process with the concerned indigenous peoples. We believe that the following suggestions can provide a sound basis for developing funding and support programs at the international and national levels; however, indigenous input and participation is required before implementing specific actions.

1. The Saami of Lovozero, Russia requires urgent assistance to re-negotiate a better agreement with the administration of the Murmansk Oblast to protect important traditional sites with high cultural and biodiversity values. The Saami community needs control of tourism and other activities within and surrounding the site, as well as capacity building to enable it to participate fully in protected area planning and management, and tourism development.

2. The attempt by the community to ask the public to stay away from Seidjarv (www.ruslapland.ru/seida_news2.htm) could potentially be supported through expertise for other communities who have successfully undertaken such campaigns.

3. The Saami of Lovozero may want help to start letter writing and foreign press campaigns to inform the international public, tourism companies and individual fishers about the imbalance in access to Saami traditional fishing areas. The Saami could solicit international support from fishers themselves to negotiate with the Murmansk government, to establish an extensive CCA structure for local Saami management of sustainable traditional and tourist fishing throughout the Kola Peninsula and elsewhere on Saami traditional lands.

4. The Saami of Lovozero could be given assistance to clearly document and demonstrate their traditional sustainable management of birch and boreal forests and develop proposals to establish a CCA forest system, with a view to supplying wood products to other residents in the Murmansk Oblast. This could result in a new relationship between the Oblast, the Saami and the general public by which they could re-establish Saami management the forest.

5. The "Tundra" reindeer cooperative may benefit from developing a long-term marketing strategy to rationalize its reindeer business, especially in relation to its high cost, low return beef business.

6. The Saami of Lovozero may want to initiate negotiations with the Russian Federation to open up the 100-km wide border zone for low intensity resource utilization on these ancestral lands. There are currently few if any competing interests in this zone. They could offer to have their movements within this area tracked by satellite telemetry to ease the concerned of the state.

7. Nenet herding enterprises need to be able to negotiate compensation directly with oil and gas companies for loss of their pastures to exploration and development, with legal and other support from the Russian Union of Reindeer Herders.

8. Existing and new laws in Russia need to be explained to, and reviewed by, local herders, potentially following the public education and consultation process developed for the new Wildlife Act in Nunavut. Once herders have a better understanding of the laws, they will be able to take better advantage of them and to propose improvements.

9. Networks of reindeer herders and their enterprises could enable on-going exchange of expert traditional knowledge, up-to-date status of range conditions and other information through improved accept to the internet in villages.

10. All regional and national governments in the Arctic should establish laws that protect the intellectual property rights of indigenous people and their community to their knowledge and practices of customary resource management practices. If governments become open to allowing use of indigenous management systems to conserve biodiversity and indigenous cultures, they have onus to ensure that profits from use of these systems should flow directly back to the communities.

11. Legislation is urgently required in Russia to recognize inalienable rights of indigenous peoples to land and resources.

12. Canada and other Arctic nations should enact federal legislation that would recognize and support voluntary designation and protection of CCAs on indigenous/aboriginal-owned lands and waters. This would promote aboriginal peoples to establish areas, comparable to Australia's Indigenous Protected Areas. Such recognized areas could increase the protected area system of these countries, and provide government assistance for community conservation planning and on-going management, while allowing aboriginal communities to retain autonomy of their lands. Such legislation should be enacted at the national level, but supportive territories, provinces and other regional government could

potentially pass such legislation sooner.

13. Canada and other Arctic nations should enable community management of important biodiversity and cultural areas as national, provincial and territorial parks, using the experience of Columbia in such innovative efforts. Canada's national health system is administered and delivered at the provincial and territorial levels based on national standards. It is, therefore, conceivable that indigenous communities could manage protected areas, based on national standards and guidelines.

14. It is critical that indigenous peoples in the Arctic are given the resources to document the knowledge of their few remaining elders who stayed on the land until fairly recently. This should include the information and skills needed for traditional teaching systems, and the mental skills and discipline needed to transmit decades-old information accurately and appropriately, as well as the basic knowledge and skills related to animal behaviour and anatomy, herding and hunting skills, and indigenous conservation strategies and methods. Indigenous communities should determine the extent and effort that they wish spend on "written" methods (e.g., on paper, video, computer and other fixed media) of conserving their knowledge, compared to conserving the traditional "oral" methods of their knowledge systems.

    Elders themselves have recommended the use of videos to preserve not only the oral knowledge and physical skills, but also to illustrate the methods used in traditional teaching. This would be important to do in small family groups on the land, as was done before elders started lecturing to large classes in schools.

15. Some Inuit elders and hunters have suggested that written guidelines should be made available based on traditional hunting rules, practices and standards of conduct for each species and community. These could include proper harvesting and butchering procedures, safety protocols, use of appropriate traditional and modern weapons, and other procedures, largely aimed to minimize loss and wastage and to maximize safety.

16. Throughout the Arctic tundra, de facto CCAs can continue to enhance the fragile biodiversity and cultural diversity only by increasing their status as irreplaceable international, national and local cultural treasures. Such status could be conferred in today's world through international and national public educational programs, combined with de jure confirmation that indigenous peoples can continue to manage these CCAs whether they be hunters, trappers, fishers, gatherers or herders. Such de jure recognition, coupled with local training of indigenous youth in traditional knowledge and customary practices, will help engender local pride and status that will encourage indigenous communities to remain involved and active in traditional activities.

17. Indigenous knowledge needs to be incorporated into measures of both biodiversity and ecosystem health, as well as into measures of successful management of protected areas.

18. Indigenous communities, research institutions and other organizations need financial support and capacity building to ensure effective implementation of CCA

systems.

19. Indigenous communities need to be able to develop their own sources of revenues from CCAs and other resources to ensure that their communities may be move towards self-sufficiency.

20. Indigenous communities need to be free to adapt their traditional systems to modern circumstances, without state governments or bureaucratic determining what is or is not “traditional”. Traditions have always evolved and should be expected to do so in the future.

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