



Chapter 2

Lifestyle, social and economic status of indigenous peoples



2.1. Background

Russian legislation defines indigenous populations of the Russian Federation as follows:

“The numerically small indigenous populations of the Russian Federation (hereafter referred to as Indigenous Peoples) are those residing in the areas of the traditional settlements of their forefathers, preserving their traditional lifestyle, economy and trades, who perceive themselves as an independent ethnic entity, and whose population in the Russian Federation does not exceed 50000. The Common Register of the Indigenous Peoples of the Russian Federation is approved by the Government of the Russian Federation based on information provided by the authorities of the administrative territories of the Russian Federation where the indigenous populations reside.”

The law further clarifies that:

“... the traditional lifestyle of Indigenous Peoples is the strategy of survival which has been developed throughout their history, based on the experience of their forefathers in nature management, original social structure, accommodation, original culture, and the preservation of customs and beliefs.” (Federal Law, 1999).

Currently these characteristics provide the main criteria for the identification of the indigenous peoples in Russia. To date, this definition has applied to 40 indigenous minorities, who are listed in the Common Register, mentioned in the Law¹. Individuals belonging to these indigenous minorities are eligible for special targeted programs and a number of privileges to ensure their security.

The indigenous peoples included in the Register share many common characteristics and problems. At the same time they also differ significantly from each other, which makes the framing of a single concept of sustainable development a difficult task.

Based on their original settlement patterns, the indigenous peoples of Russia can be classified into several groups. One of these groups comprises the indigenous peoples of Northern Russia, Siberia and the Far East, a group that are distinguished by extreme living conditions, prolonged isolation from other cultures, their distinctive material and spiritual culture and migratory habits, in addition to other traits. One important feature shared by this group of indigenous peoples is a more deep overall social and economic crisis than that encountered in other minority population groups in Russia.

The group of indigenous peoples of Northern Russia, Siberia and the Far East is a sub-group, comprising 11 indigenous peoples whose residence in the Arctic region (i.e. in the coastal and northern areas of the Arctic Ocean catchment) is a determining characteristic. It is generally believed that the forefathers of these contemporary Arctic indigenous peoples came to the Arctic region 10-12000 years ago, during the final stage

of the last glaciation. This was the beginning of a period of migration by ancient tribes across the Arctic zones of Eurasia, and by northward migration of tribes from the south. This mixing between the new immigrants and the ancient indigenous tribes started a new page in the ethnic history of the North.

In fact, northern ethnic groups were continuing to develop up until the 19th century and it was only when the original inhabitants of ‘Siberia’ came in contact with ‘European civilization’, that they were considered to be ‘indigenous peoples’, as this term is understood today. Prior to this they were considered ‘disintegrated ethno-linguistic communities, characterized by unstable population density, dispersion, ethno-cultural heterogeneity and weak intra-ethnic communication’ (National Report, 2000).

The features which characterise the northern indigenous peoples are determined by their environment. Their small population size also results from external factors and does not indicate either under-development or inherent population decline. On the contrary, for their specific geographic environment and economy type, a small population size represents an optimal solution (Gumilev and Kurkchi, 1989). However the same factors which ensured the high degree of adaptability of northern populations to their extreme living conditions, also made it difficult for them to integrate with other cultures, especially those which were more ‘developed’. The resulting conflicts have affected all aspects of their life, including social, cultural and spiritual integrity.

Before conversion to Christianity, the indigenous populations of northern Russia were animists, believing all creatures and objects of the world to possess souls. This allowed them to explain the world around them, including many natural phenomena, and also created a need for communicating with spirits. Such beliefs led to the emergence and development of shamanism. Shamanism and shamanistic practices provided faith in one’s own abilities in the face of fears aroused by the incomprehensibility of nature and man’s inability to influence it. This was the shaman’s role and explains his influence on his fellow-tribesmen (Kasavin, 1990).

The arrival of Europeans in the northern regions brought significant changes to the world of the indigenous populations – especially in connection with the discovery and development of mineral deposits. It was during this period that the various indigenous ethnic groups were defined and assigned their modern names (generally different from those used by the indigenous people themselves). This occurred as a result of various political and legal decisions, reforms and government activities, including the introduction of the census and passports, administrative and territorial division, and deliberate elimination of dialects and even some ethnicities.

¹ There also exist other definitions of the term ‘indigenous minorities’ which are not considered here.

The expanding ‘Register of Indigenous Peoples of Northern Russia’, established by law, currently identifies 30 indigenous peoples who reside within the five Republics, four Krai, ten Oblasts, and eight Autonomous Okrugs which comprise almost the whole area of the Russian North, Siberia (including Southern Siberia) and the Russian Far East. The total population of northern indigenous peoples is less than 200000 people, and constitutes less than 2% of the total population of the northern regions of Russia.

It is clear that the northern indigenous peoples have undergone significant changes, which have distanced them from their forefathers in economic, social, cultural, and even anthropometrical respects. However, certain groups of the contemporary indigenous population still preserve both the cultural identity and the economic activities which are considered to determine a traditional lifestyle and pattern of settlement (nomadic or semi-nomadic lifestyle, etc.).

Ethnonym: modern / previous (own) language	Main area of habitation (see also Figure 1.1)	Population in the 1989 Census	Main traditional trades
Aleut / Aleut (aleuts, unangany, unangan, unangan) In fact two indigenous peoples	Kamchatka Oblast	278	Sea-hunting Fishing Gathering
Chukchi / Chukchee (Luoravettan), Language: Chukotko-Kamchatkan family. Several dialects. The oldest nation of North-Eastern Russia, which spread towards Kolyma and coastal areas of the Chukchi peninsula putting pressure on other indigenous populations.	Chukchi Autonomous Okrug, Republic of Sakha (Yakutia), Magadan Oblast, Kamchatka Oblast, Koryak Autonomous Okrug.	12995	Two original types of economies: deer-breeding with large herds (continental nomadic groups) and sea-animal hunting (coastal settled groups). Secondary activities: hunting, fishing, gathering. The deer-breeders travel across tundra with deer teams, coastal sea-hunters travel with dog teams. Ski - snow-shoes. When travelling by water they used dugouts, leather kayaks. Dwelling: Nomads: yarangas (dome-shaped) formed of a frame covered with deer skins. Settled: yarangas or mud-huts built on a frame made of sea animal bones. Heating and lighting: fat-based lamps Clothing: two layers, fur, no fastenings.
Chuvantsy (Chuvan) / -- Etsel	Chukchi Autonomous Okrug, Magadan Oblast	487	Fishing, hunting, dog-breeding, picking
Dolgan / Dolgans (Dolgan), the language: Turkic, Altaic family. Nomadic life in forest-tundra.	Krasnoyarsk Krai, Taymir (Dolgan-Nenets) Autonomous Okrug, Republic of Sakha (Yakutia)	5754	Deer-breeding of mixed type, Hunting for wild deer at river crossings and with deer-decoy, fowling etc. Fishing Dwelling: a conical choom, a hut on sleigh, driven by 5-7 deer. Clothing: furs and textiles, a type of caftan.
Enets / Yenisey Samoyeds, (Enneche, Madu) several subgroups	Krasnoyarsk Krai	116	Hunting, fishing
Eskimo / Eskimoes (Yupik, Yuit). Three groups	Chukchi Autonomous Okrug	1514	Hunting for whale, walrus and other marine mammals. Wild deer hunting, fowling, fishing, berry picking, seaweeds. Dwelling: dugouts. The walls are built of stones and whale bones. The frame is covered with skins. Yarangas similar to Chukchi. Clothing: fastened, made of deer or seal skins, or birds' skins.
Evenk (Evenki) / Tungus (Evenki, Orochon)	Amur, Irkutsk, Sakhalin, Chita Oblasts, Krasnoyarsk, Primorsky, Khabarovsk Krai, Republic of Buryatia, Republic of Sakha (Yakutia)	25548	Hunting, fishing, deer-breeding, gathering
Even / Lamuts (Even, Orochel) several subgroups	Magadan, Kamchatka Oblasts, Khabarovsk Krai, Chukchi Autonomous Okrug, Republic of Sakha (Yakutia)	12017	Deer-breeding, hunting, fishing, gathering
Itelmen / Kamchadals (itelymem)	Kamchatka Okrug	1449	Fishing, hunting
Ket / Yenisey Ostiaks (Kets)	Krasnoyarsk Krai	939	Fishing, hunting
Khanty / Ostyak (Khanti) – three subgroups, two independent groups	Tomsk, Tyumen' Oblasts	17289	Fishing, hunting, deer-breeding
Koryak / Koryaks (Nymylans, Chavchuvens) Several subgroups, include Kereks and Alutors.	Kamchatka, Magadan Oblasts, Chukchi Autonomous Okrug	6254	Sea-hunting, fishing. Gathering, deer-breeding, Hunting
Kuman / -- (Cuman) - one of subgroups of Altaic indigenous populations	Altay Republic, Altay Krai	662	Cattle-breeding, deer-breeding, hunting, fishing, gathering, blacksmithing.
Mansi / Voguls (mansi, mansiy)	Tyumen', Sverdlovsk Oblasts.	4873	Hunting, fishing, deer-breeding
Nanai / Goldi (Nanaj, Nanai) – Several sub-groups	Khabarovsk, Primorsky Krai	8280	Hunting, fishing, gathering
Negidal / ogilyaks (elkan-baianin)	Khabarovsk Krai	384	Fishing, hunting, gathering
Nenets / Yurak Samoyeds (Nenetsy, Nentse, Nenec) Several subgroups Language: Samoyedic groups, Uralic family.	Krasnoyarsk Krai, Taymir (Dolgan-Nenets) Autonomous Okrug, Archangelsk, Tyumen', Murmansk Oblasts, Nenets, Yamal-Nenets, Khanty-Mansi Autonomous Okrugs.	33045	Deer-breeding for production and transportation, travelling with sled driven by a team of 3-5 deer. Dwelling: dismantlable conic wigwam. Hunting for wild deer, furry animals, and birds, fishing. Clothing – double fur.
Nganasan / Tavgi Samoyeds (Nganasans) – include two subgroups Language: Samoyedic group, Uralic family. The most northern nation of Russia.	Krasnoyarsk Krai, Taymir (Dolgan-Nenets) Autonomous Okrug	829	Wild deer hunting at river crossings and with deer-decoy, geese hunting and hunting for other animals and birds; Net fishing, fishing with gaffs, deer-breeding mainly for transportation. Dwelling: conic choom, clothing double fur.

Table 2.1.

Indigenous peoples of Northern Russia, Siberia and the Far East. Indigenous groups and administrative territories studied within the project are highlighted in grey.

Ethnonym: modern / previous (own) language	Main area of habitation (see also Figure 1.1)	Population in the 1989 Census	Main traditional trades
Nivkh / Gilyaks (Nivkhs, Nivkhi) several sub-groups	Sakhalin Oblast	2711	Fishing, hunting, dog-breeding, gathering.
Orochi / Oroches (Orochen, Nani)	Khabarovsk Krai	601	Fishing, hunting
Orok / -- (Ulta, Ujlta) , two subgroups	Sakhalin Oblast	5	Hunting, fishing, gathering
Saami / Lapp (Saami) The most Western small Northern nation. Saami also live in Finland, Sweden and Norway. Language: Finno-ugric group, Uralic family. The language has several groups and dialects.	Murmansk Oblast	1105	Wild deer hunting, including herding and traps, coastal and sea fishing, deer- breeding for transportation and partially for production. Semi-nomadic life. Travel with one-runner sled, ski. Hunting for fur animals. Skin, wood, horn processing. Spinning. Different types of dwelling - conical frame-type and rectangular, stationary and dismantlable. Clothing: double fur. Their culture shows many elements from traditional cultures of other Northern indigenous peoples.
Selkup / Ostyak Samoyeds (Selkups) Several subgroups Language – Samoyedic groups, Uralic family. Three dialects.	Krasnoyarsk Krai, Taymir (Dolgan-Nenets) Autonomous Okrug, Tomsk, Tyumen'Oblasts, Yamal- Nenets Autonomous Okrug	2980	Hunting with guns and traps for different animals, birds; fishing with nets, rods; deer-breeding for transportation (Northern Selkups). Various crafts: blacksmithing, spinning. They also acquired cattle- breeding and gardening. Travel: sled driven by deer, ski, dugouts, horses. Dwelling: mud-huts, frame-type buildings Clothing: fur, fish skin Cultural influence of adjacent indigenous populations. Currently traditional activities are destroyed by industry (oil etc.) – they are deprived of their grounds and pastures.
Shor / Kusnets Tatars, Kondom Tatars, Aba (shor) – two sub- groups	Kemerovo Krai	3485	Blacksmithing, hunting, gathering, apiculture
Teleut / -- (Telengetters) – several subgroups	Kemerovo Oblast, Altay Krai	2161	Hunting, horse-breeding, gathering
Tofalar / Karagas (Tofa)	Irkutsk Oblast	636	Hunting, deer-breeding
Tuvin-Todzhin / Soyot, Soyon, Soyod, Uriankhai (Tyva) – a small Eastern part of Tuvin.	Irkutsk Oblast, Republic of Tuva	5144	Hunting, deer-breeding, gathering
Udege / Udihe (Udekhe)	Primorsky, Khabarovsk Krai	1116	Hunting, fishing, gathering, antler deer-breeding
Ulchi / Manguns (nanai)	Khabarovsk Krai	2439	Fishing, hunting, gathering
Yukaghir / Yukaghir (Odul)	Chukchi Autonomous Okrug, Republic of Sakha (Yakutia)	672	Main activities: hunting, fishing, gathering.
Total population of the northern indigenous peoples: 156038 people			

Table 2.1 provides general information on the indigenous peoples of Northern Russia, Siberia and the Far East, their main areas of habitation, and occupations followed.

2.2. Traditional lifestyle

By definition, the indigenous peoples of northern Russia (including the indigenous peoples of the Arctic area) occupy remote regions of Eurasia, including the northern polar areas and islands in the Arctic Ocean. The proximity of the Pole and the Arctic Ocean determine the climate and nature of these areas, and also their landscape, which mostly consists of tundra and forest-tundra. Vast areas are covered by mountains and bogs, and there are many lakes and rivers. Fog, strong winds, long winters (lasting from September/October until June), permafrost, and scanty vegetation are only a few of geographic features that illustrate the challenges faced by any creatures living in these areas. Thus, the lifestyle as well as type and seasonal character of the economy of the northern indigenous peoples has been mainly determined by the extreme conditions and the associated severe constraints imposed on human communities.

The severe climate and limited natural resource base makes it impossible to use the agricultural and subsistence practices commonly found in more southern areas. As a result, northern indigenous peoples took

longer to develop their primary economies than other indigenous populations. Up until the 20th century, most of the indigenous peoples predominantly practiced primitive forms of hunting (including sea-hunting), fishing, and gathering. Whilst some of the indigenous peoples also mastered, to varying degrees, the practice of nomadic reindeer-breeding, for many this also took a rudimentary form.

In general, by the time the Russians arrived in Arctic Eurasia, the indigenous peoples of the area were still evolving their economic and cultural systems. Their survival strategies, especially those relating to everyday life, have been classified as a 'traditional lifestyle'. Later, however, during the Soviet and post-Soviet periods, the lifestyle of the northern indigenous peoples underwent radical changes. When speaking of 'preservation of the traditional lifestyle' under modern conditions, therefore, it is necessary to take account of these differences.

Research has shown that in some areas of northern Russia the 'traditional lifestyle' and 'traditional trades' have survived and are still developing. However, in most regions, the traditional economy and associated way of life have either been eliminated or are in crisis.

Nevertheless, even in those areas where the traditional lifestyle and economy are considered to be in crisis, there are still some traditional communities

trying to overcome their difficulties and seeking to adapt their households to modern life, whilst at the same time retaining or reviving the knowledge of previous generations.

2.3. Traditional economic activities

The main traditional activities undertaken by the northern indigenous peoples include reindeer-breeding, hunting, fishing, sea-hunting, and gathering.

2.3.1. Reindeer-breeding

The reindeer is a unique animal that can find food where other domestic animals are unable to survive. The European (or Lapponian), Novaya Zemlya, Siberian, Tundra, Siberian Woodland, Okhotian, Barguzin, and Spitsbergen reindeer are all sub-species of reindeer found in Russia.

Reindeer-breeding is still the main economic activity for most indigenous peoples of the Russian Arctic. It is primarily practiced by Nenets, inland Chukchi, Koryaks, Nganasans, Dolgans, northern Khanty, Saami, Mansi, and some Evens, Evenki and Enets. Domestic reindeer breeding began mainly in the 18th century, through the domestication of wild reindeer, and represents a form of nomadic stock-breeding.

During the Soviet period, reindeer-breeding underwent significant change and was developed as an agricultural industry, with the family communities being transformed into production teams. At that time, Russia had up to 2.3 million domestic reindeer, which constituted three-quarters of the world's stock. Reindeer breeding as an industry was very profitable.

For deer breeding, a herd is normally maintained by one extended family or a group of relatives. In the Arctic zone, herds are usually large, migration routes are long and reindeer breeding is oriented towards production. One of the main functions of reindeer is to provide people with food and clothing. Meat, blood, marrow, intestines and other tissues are consumed, both fresh and processed. The skin is used for clothing and shoes, and for the construction of lodgings and other accessories.

In winter, reindeer eat mainly lichen, fallen leaves and grass, which they find under the snow. The summer diet consists of grass, leaves, mushrooms, berries and even birds' eggs and nestlings. Reindeer herds constantly migrate in search of new pastures and to escape blood-sucking insects.

The life of reindeer-herders is largely determined by the biological cycle of the reindeer. Reindeer herders have to move constantly, following the reindeer migration. In summer they migrate towards the ocean or mountainous areas, whilst in autumn, they return inland to river valleys, forest-tundra and taiga. To trav-

el across tundra, nomadic herders use sleds pulled by teams of one to four, and occasionally even up to seven reindeer. The types of sleds and teams differ. The Saami use one-runner sleds without stanchions; Nenets use high-stanchion sleds, and Chukchi use low sleds with seven or eight stanchions. There are a range of different sleds for women, men, children and transportation of goods, as well as covered sleds.

The nomads traditionally live in yarangas or chooms, wooden frame tents covered by reindeer skins that have been sewn together (in winter, in two layers are used), which can be easily dismantled and put up at a new location. Curtains made of skins are often put inside to give added protection from cold. The nomads' clothing normally has no fastenings and is made of deer skins. Winter clothing has two layers, with fur both inside and outside.

To the south, within the subArctic forest-tundra and taiga (where hunting is better developed), reindeer breeding differs. Reindeer are larger but the herds are less numerous and the animals are mainly used for transportation. In woodlands, as the use of sleds is difficult, the reindeer are usually used with pack-saddles or ridden astraddle. Also, migration routes in woodlands are shorter and depend upon the season. Therefore, reindeer-breeding in forest-tundra is usually combined with hunting.

In modern life the traditional dwellings and clothes of reindeer-breeders begin to be replaced by tarpaulin and synthetic tents, rubber boots, warm textile clothing and other artificial materials. Whilst being convenient and easy to handle, these materials are not altogether suitable for people following a traditional lifestyle. Reindeer-breeders, fishermen and hunters are always working outside. Thin tarpaulin does not protect from the cold as well as reindeer skins, and synthetic clothes can prevent normal exchange of heat and moisture which can increase likelihood of illness.

2.3.2. Sea-hunting

Sea-hunting is a traditional activity of the indigenous peoples of coastal areas of the Arctic and Pacific Oceans. These are primarily Eskimos, Aleuts, coastal Chukchi and Koryaks, and to a lesser extent Nenets, Evens, and some other indigenous groups. The object of this type of hunt are whales, walruses and seals (including Ringed seals), which provided indigenous communities with meat, fat and skins. Meat and fat from marine mammals, both fresh and processed, as well as preserved in traditional ways, were the main food sources for some coastal communities.

Whaling had special importance for the indigenous population of Chukotka. A team of 8-10 people took part in the hunt, and one bowhead (Greenland right whale) or grey whale could provide enough food for a whole village.

Sea-hunters built their settlements on higher parts of the coast, where they had a good view of the sea to assist in searching for whales. When a whale appeared, the hunters would rush to the sea in several kayaks. They would first throw harpoons with floats to keep the whale from diving, and then kill it with spears. Later on, guns were also used in whale hunting. Koryaks used belt nets to catch and kill whales.

During the Soviet period, independent indigenous hunting was prohibited and whales were hunted by a special state-owned whaling fleet. Whaling ships would bring their catch to the villages where the role of the indigenous community was to transport carcasses from the ships to the coast and to process them. All villagers were involved in this work. The first whale was always a feast and all meat and fat was shared among the families. The whaling ships were in use until the early-1990s. It was during the Soviet period that the most important traditional skills were lost and the lifestyle of sea-hunters threatened. In the post-Soviet period, economic problems prevented the lease of whaling ships and a slow revival of traditional skills took place.

Walrus were traditionally hunted in open sea in spring and autumn, either while in the water or on ice-floes. In summer, walrus were caught on the coast at their rookeries. At sea, hunters used boats, made from a frame covered with walrus and seal skins. Previously, animals at sea were hunted using a rotary harpoon with special detachable tip. Hunting of Ringed seal and other seals species took place throughout the year, usually by individual hunters in kayaks in the open sea and using both weapons and traps on the ice.

Sea-hunters were settled. They travelled with dog teams from permanent dwellings built from a frame of whale bones, covered with turf and skins to form a spacious hut. Stone lamps filled with sea mammal fat provided heating and lighting. Their clothing was made from sea mammals skins and intestines of and had no fastenings.

The hunting practices were reflected in the culture and spiritual beliefs of indigenous populations, which developed over millennia. Some traditions were lost during the Soviet period, but in recent years some noticeable efforts have been made to restore them.

2.3.3. Hunting and trapping

Historically, hunting was very important for indigenous peoples, especially for the Khanty, Mansi, Kets, Yukaghir, Udeghes, some Orochis, Nanais, Negidals, Itelmens and some other groups. The purpose of the hunt was determined by the prevailing environmental, ethnical and historical situation. Originally the primary aim of the hunt was to provide meat, later, hunting animals for the fur trade also became important.

The main quarry were wild deer, moose, brown and polar bears, snow sheep, hare, and various birds, including geese, ducks and partridges among others. The main fur animals were sable, squirrel, marten, wolverine and otter.

In some areas, for example the Taymir, wild reindeer hunting was a traditional activity, performed during the short period of time when reindeer herds were crossing rivers. On these occasions, hunters killed the animals from boats. This short hunt provided sufficient food to support the neighbouring villages for a long time. Later this activity was commercialized, using new technology and fire-arms and was mainly undertaken by non-indigenous workers for commercial enterprises. The carcasses were also processed along the river banks, causing environmental damage. This form of commercial 'hunt' differs in form and meaning from the traditional one. Furthermore, the indigenous population was forced away from the reindeer crossings and deprived of the means of sustaining itself. Other forms of reindeer hunting involve the use of domestic reindeer to entice wild reindeer.

The main hunting tools used originally were various traps, but later on guns came into widespread use. Indigenous hunters traditionally lived a semi-nomadic or semi-settled life, moving to several different locations throughout the year. They lived in different kinds of dwellings: the simplest being log houses, mud huts, or chooms, covered with bark and tree branches. Hunters travelled on reindeer or on foot, and also at times used special skis and small sleds. Their clothing was made mainly from deer fur and fastened down the back.

2.3.4. Fishing

Fishing has always been one of the most important traditional activities of the northern indigenous peoples. Until the present day, fish has been the most important food product for both people and dogs. The most active fishing takes place in spring and autumn during the seasonal migration of anadromous fish. Fishing has traditionally been the main activity of the Ob Khanty, Mansi, southern Selkups, some Kets, Nivkhs, Ulchis, Nanais, Negidals, Orochis, Oroks, Itelmens, some Koryaks and Chukchi. Fishing also provides materials for clothing and shoes.

2.3.5. Gathering wild plants

Gathering wild plants and berries has been widely practiced since the earliest times and contributes to the provision of food and other needs of the indigenous peoples, for example, products to assist in tanning and dyeing of skins for clothing.

2.4. Social impact of recent political and economic reforms

The State policy towards northern indigenous peoples has changed at various times. From the very beginning of colonization, the Tsarist government faced the problem of the formalization of citizenship of the colonized

indigenous peoples and their lands. The problem arose because at the time when the Russians came to Siberia, the indigenous peoples had not yet formed integral ethnic communities with an administrative structure. Social networks and administration were restricted to families, and tribal or clan communities. This was due to a certain extent to their geographical isolation and also to the nature of a subsistence family economy.

The archaic economic and social relations of the northern indigenous peoples also influenced their spiritual life, culture, behavioural standards and law. This introduced certain complications during the integration of the northern indigenous peoples and their lands into Russia, as the indigenous communities had no recognized leaders to sign the contracts and documents, confirming their consent to join the Empire and to ensure the legal formality of colonization.

The key strategy used to solve this problem was the introduction of 'yasak' – a tribute paid by the indigenous peoples as a symbol of their obedience to Russia and of their Russian citizenship. The main goods paid as yasak were sable skins and other furs, as well as tusks from mammoth remains and walrus, and other luxury items. The yasak commitments and the introduction of new commodity-money relations and trade led to the development of fur trading, which had not been very widespread amongst northern indigenous peoples until then. This change in activities led to an alteration in the traditional lifestyle.

Colonization was not, of course, easy and bloodless, however it is generally accepted that the main intention of the Russian state towards newly colonized indigenous populations was not to cause their displacement or extermination, but rather their naturalization. The peaceful nature of colonization is reflected in the legal documents of the time, for example the first legal document – the 'Code of Law of 1649', which recognized the right of the indigenous populations to preserve their customs and beliefs and traditional law system. Later on, during the period 1819-1822, the 'Statute on the Administration of Foreigners' was approved, which until the Revolution remained the most important document relating to the northern indigenous peoples. The Statute introduced a different approach to different indigenous peoples and established a structure that best suited the characteristics of various indigenous communities.

After the Revolution, in December 1917, the Declaration of the Peoples of Russia was adopted. This proclaimed the right of all national minorities and ethnic groups living in Russia to independent development. This was confirmed by the Constitution of 1918. Thus, the indigenous peoples of the Russian North acquired equal rights with other ethnic groups of Russia. Also worth noting is the 'Decree of the Government On the Preliminary Protection of Indigenous Tribes' of 1923, which banned the import

of alcohol to areas of permanent migrations of northern indigenous peoples, and also introduced a state monopoly on the fur trade, and other measures.

During this period, scholars and politicians proposed two alternative concepts for the further development of the northern indigenous peoples:

- The 'Traditionalist' or 'Native' concept implied the preservation of the culture of the northern indigenous peoples. This concept proposed that contacts with the newly arrived population be minimized and the creation of 'reserved' areas similar to those existing in Western countries (Bogoraz-Tan, 1923).
- The 'Innovative' or 'Integrative' concept was based on the need for the rapid and radical integration of the northern indigenous peoples into the culture of other peoples of Russia and their adoption of socialist values.

Originally the 'traditionalist' policy was followed, characterized by a partnership approach and very slow, limited reforms to the indigenous lifestyle. Later, the policy of radical change prevailed. New administrative and territorial divisions were introduced, whereby some indigenous peoples were assigned their 'own' national (later renamed 'autonomous') administrative territories, known as Autonomous Oblasts or Autonomous Okrugs. Such 'autonomy' did not in fact imply any form of self-administration. On the contrary, the indigenous communities were increasingly subjected to total and radical transformation. Reforms and standardization were imposed on nearly all aspects of life. New production associations emerged rapidly, such as artels, cooperative societies, collective farms (kolkhozes), etc. Later on, kolkhozes in the northern areas were replaced by Soviet farms (Sovkhozes) and almost all the property of indigenous population was nationalized².

There were continuous efforts to eliminate nomadic habits and to introduce a settled lifestyle. To achieve this aim, the state established centralised estates in kolkhozes and sovkhozes. Originally these were tiny settled bases, which later developed into large villages, accommodating administration and service personnel.

The main strategy used to eliminate the nomadic lifestyle was to transform reindeer-herding and other traditional activities into production activities, and to remove aspects of the traditional lifestyle from the everyday routine life of the indigenous peoples. For this purpose, children, women and the elderly population were moved from reindeer herding camps, and fishing and hunting sites, to the newly-built villages.

The transition to a settled way of life was a complicated and painful process, because it involved crucial changes of the whole lifestyle and the wholesale destruction of traditional values. The result was the following: men nomaded in the tundra, women were moved to villages, and children sent to boarding schools.

² Statistical data: By 1934, 37% of all households of northern indigenous populations and 10% of the deer population were collectivized. By 1943, 97% of all households of northern indigenous populations and 89% of the deer population were collectivized (of which 18% were given to Sovkhoz) and only 11% remained privately owned.

It was the total collectivization and the mass forced separation of children from their parents that led to the most destructive changes in the traditional lifestyle. The traditional lifestyle, which had developed over the long course of history, was rapidly transformed into a modern form of society, with changes occurring in all spheres of material and spiritual life. Villages acquired health centres and schools, secondary education became obligatory, literacy and proficiency in Russian language increased, and indigenous peoples got professional education. Ideology was a very important component of life and representatives of the indigenous peoples, in common with the rest of the USSR population were actively recruited to the Communist Party and the Youth Communist League.

At the same time, however, traditional skills, customs and native language were gradually being lost. Detary habits also underwent radical changes and the diet came to consist mainly of imported food products, preserves, sugar, dairy products and other non-traditional food.

Despite the negative impacts of the socialist state, problems relating to unemployment, the health service, education, provision of acceptable living conditions and food provision for the indigenous populations, were however alleviated.

During and after the second World War, massive industrial development of northern areas commenced. This included intensive geological research and the development of mineral deposits, which resulted in the reduction of areas available for use as pasture, and hunting and fishing grounds.

During the post-Soviet period, there was a further radical change in State policy. After the dissolution of the USSR, Russia entered a period of political, economic and social change, affecting both state and society. At the beginning of the 1990s, some Autonomous Okrugs populated by northern indigenous peoples attempted to follow the general trend of the Russian 'struggle for independence' and to change their status. Such movements were, however, initiated mainly by the (usually non-indigenous) leaders of the relevant administrative territories rather than the indigenous peoples themselves. At the same time, the leaders of the administrative territories were opposed to the creation of national districts, national village councils, communities and other forms of aboriginal self-administration, even at a basic level.

The turning point of this period occurred when the State rejected the policy of 'paternalism', which had allegedly existed before, and granted the northern indigenous peoples the 'freedom' of self-sufficiency within a declared policy of 'partnership'.

Economic reforms and transition to a market economy were followed by the reorganization of sovkhozes in areas populated by the indigenous peoples, which represented

one of the most important changes. This campaign led to a change of ownership of property whereby former state farms were converted into various private, family-owned, joint-stock and commercial agricultural, hunting and processing enterprises.

Theoreticians of the market economy forecasted the revival and the development of private farms and enterprises, but in practice the changes actually resulted in the destruction of the remaining economic, social and cultural foundations of many northern communities. However, practical reorganization of agricultural enterprises in fields traditional northern indigenous activities, which operated in the Soviet times, often led to their destruction. Some of the reasons for this are briefly outlined below.

Although both hunting and fishing were traditional activities of the indigenous peoples, they had largely been forced away from rich hunting and fishing grounds to poorer and more remote locations by newcomers. These new hunters had the advantage of contacts with the town markets, allowing them to sell furs for higher prices. As the result, indigenous fur trade has significantly decreased since the introduction of a market economy due to a reduction in price of wild animal skins and the increasing price of ammunition. Skins of white fox have effectively lost their value and most of the hunting sites in the tundra have been abandoned. The price of squirrel skin currently approximates to the price of a cartridge. Only sable now remains profitable for hunters, but even in this domain, profits have fallen significantly (Klokov, 2002).

Fishing is also in crisis for economic reasons - lack of capital for investment and the high cost of transportation make commercial fishing impossible. At best it now serves to supply food to local trade network, but even here there are some problems. The interests of the indigenous peoples are contrary to those of large fishing enterprises and distribution of fishing licences and quotas results in conflicts, which are seldom resolved to the benefit of the indigenous population.

Similarly, gathering activities are unable to provide a reliable source of prosperity in the northern areas. The sale of berries brings only a small profit, as there is no established system of marketing in villages, no equipment for processing and preservation, and the market price is paltry.

In conclusion, these traditional activities are currently not capable to stimulate the economic prosperity of the indigenous population, and at best, can serve as a local food supply.

Marine mammal hunting and reindeer-breeding are more promising in all respects, being economic activities where the indigenous populations have encountered less competition from imported labour. These activities (and especially reindeer-breeding since it is

more widespread) could, therefore, establish the economic foundations for sustainable development of the indigenous peoples. In most regions, however, reindeer-breeding is currently in decline. Only the Yamal-Nenets and the Nenets Autonomous Okrugs show definite improvement, which can be explained by the fact that, in some areas, private herds, together with the appropriate traditions, were preserved during the Soviet period.

Local stability, however, will not save domestic reindeer production in Northern Russia as the whole. According to statistics, the total population of domestic reindeer in the Russian Federation halved between 1991 and 2001. Table 2.2 uses the example of Chukotka to illustrate the changes in the reindeer population. Other social indicators in reindeer-breeding regions have also shown a deterioration. There is a massive migration of indigenous people from the areas associated with traditional activities, to villages and cities, where many of them are unemployed. Among some indigenous peoples, more than half the population number is now considered as an urban one.

Year	1988	1996	1997	1998	1999	2000	2001
Reindeer population	485959	189600	156794	121206	103466	92452	99984

Table 2.2 Changes in the reindeer population of Chukotka between 1988 and 2001.

The main negative consequence of the transition to a market economy and the subsequent financial and economic crises which have arisen is the reduction of social activity amongst the indigenous population. This, together with a lack of money, the collapse of the traditional economy and loss of familiar values has led to a mass expansion of alcohol consumption amongst the indigenous population.

2.5. Industrial pollution

A main feature of the northern regions of the Russian Federation is the co-existence of two diametrically opposed types of economy in a very vulnerable and fragile environment. One is the traditional indigenous lifestyle, attuned with the environment, and the other is the contemporary industrial economy which often leads to the destruction of the environment. Frequently, mineral deposits coincide with reindeer pastures, hunting and fishing grounds and other areas of traditional nature management.

Another feature is that, historically, the Far North has been the supplier of raw materials to the central part of the country. Originally these materials were furs, but now the products are silver, gold, diamonds, wood, coal, oil, gas, and other goods. Raw material exploitation effectively provides prosperity for other parts of the country, but to the detriment of the environment in the northern regions, and with little benefit to northern indigenous peoples.

A third characteristic of the northern regions is the absence of any real self-administration, and a lack of the means to influence or control the industrial development of natural resources, or, to at least obtain realistic compensation for the areas affected.

During the Soviet period, when military and industrial development of the North began and numerous work camps occupied by prisoners were established, a policy of secrecy and restricted access was instituted and has been followed since. The Arctic, in particular, was classified as a restricted region and remained a closed area with an enforced frontier. Development of the Arctic has, therefore, been regulated by confidential resolutions and directives of the party authorities and the government. For this reason, it has always been difficult and sometimes impossible to obtain information relating to the environment.

Currently the Ministry of Natural Resources relies on the mass media to keep the northern indigenous peoples informed. However, problems arise because the mass media have little or no access to areas of traditional nature management, and furthermore, the Ministry and other authorities themselves lack the necessary information about the land and sites which are of concern to the indigenous population. Ecological maps available at the present time only provide coverage of small areas within some regions.

Some quotes from local indigenous people:

“Since 1995, there is gold extraction in the upper reaches of the Peledon river. Although we have been informed that the environmental impact assessment has been made and approved, people do not believe this. Unhealthy water flows downstream of the mines, and dead fish can be often seen. Peledon river enters Anadyr river, which is the largest spawning river in Chukotka, and which feed a lot of people. And these people are strongly concerned.”

Fedor Ugyansky, Lamutskoe village, Chukchi Autonomous Okrug

“The situation arose that the Oblast has no environmentally pristine areas. The nature of Murmansk Oblast was used for dozens of years without considering negative consequences. Neither large, nor small industrial enterprises or the Northern Fleet make any attempts to improve the situation. There is no independent control, or penalties to violators of environmental legislation.”

Lyubov Vatonena, Settlement Lovozero, Murmansk Oblast

The development of the natural resources of the Far North led to a radical reduction in the areas used by the northern indigenous peoples for traditional nature management, both through direct requisitioning and destruction of these areas, and also through their pollution. Vast areas of industrial devastation exist across the whole territory of Far North, including some areas of environmental destruction due to anthropogenic activities. As a result, in many regions, large areas of

reindeer pasture, rivers and lakes are no longer in use. Industrial sites represent dangerous sources of chemical pollution, affecting large areas well beyond the actual boundaries of industrial activities or of the deposits under development.

This has resulted in irreversible transformations and far-reaching changes in the activities of the indigenous population. Of particular concern is that fact that pollution of the environment leads to pollution of the natural food resources used by the indigenous population. These food resources constitute an important element not only of physical survival, but also the preservation of the traditional culture. It is not surprising that pollution and environmental degradation, together with the extreme northern climate, has led to an increase in both the morbidity and mortality of indigenous peoples (See Chapter 8).

2.6. Biological and anthropological features of Arctic indigenous peoples

Regardless of their ethnicity, the indigenous peoples of the Arctic share many common features, both in the social and cultural domain, and also in anthropological-biological characteristics. The shared features show themselves both in the constitution of the people and also in a number of psycho-physiological parameters. This suggests that these features represent 'standard characteristics' evolved under the influence of the geographic and climatic conditions of the Far North. These 'standard characteristics' seem to have become a permanent feature for northern indigenous peoples, as opposed to some area adaptation features observed among more recent immigrants (Alekseeva, 1998).

Some characteristic features are briefly summarized as follows:

- constitution is solid, with well developed musculo-skeletal systems and a mainly cylindrical chest shape;
- [bone] marrow occupies a relatively large area;
- lungs demonstrate a high ventilation capacity;
- blood serum contains an increased gamma-globulin fraction;
- blood haemoglobin content is increased;
- blood serum contains a high content of proteins and lipids;
- fat oxidation capacity is increased;
- energetic and heat regulatory processes are enhanced;
- metabolism levels are very stable.

It is noticeable that, for certain parameters, the variability range between individuals in the general population is smaller compared to populations who live under moderate climatic conditions with a more optimal geochemical balance. This loss of upper and lower extremes in such characteristics contributes to the stability of the complex of morphological and functional characteristics found in the extreme conditions of northern regions. It appears that these features are par-

ticularly significant in the adaptive responses demonstrated by the northern indigenous populations to the evolving natural and social environment. Research described below supports this hypothesis.

The extreme climate, hard living and working conditions, overcrowding and poor hygiene within dwellings, high level of infection among the older population, late disease detection and lack of medical supplies all contribute to the high incidence of tuberculosis amongst the northern indigenous peoples. Other factors, such as the change to non-traditional foodstuffs, with associated immune system impacts, are also very important. Reduced disease resistance is related to specific metabolic characteristics of northern indigenous peoples. About 90% of subjects belong to a group of 'fast acetylators' who cannot fully assimilate nutrients from important food products. Furthermore it has been shown that the degradation of pulmonary tissues occurs faster in the 'fast acetylators', leading to a greater variety of destructive forms of tuberculosis even at early detection (Sulejmanov, 1996).

Respiratory diseases also play an important role in the morbidity structure of northern indigenous peoples. One specific feature, which promotes the emergence of such diseases, is the functional characteristics of the respiratory system of indigenous population. As a result of long exposure to the severe northern climate, the indigenous peoples have developed a special respiratory 'defence mechanism' in which the inhalation phase is shortened, whilst the exhalation phase is prolonged. This reduces contact between cold air and the respiratory tracts. Air that is retained in the lungs ensures the dilution and warming of new portions of air as they enter the lungs. Under modern conditions, this adaptive reaction becomes harmful as it contributes to oxygen deficiency and accumulation of the toxic substances inhaled from the atmosphere. This promotes pulmonary diseases, including cancer (Sedov, 1998).

The change in traditional dietary habits has had a greater impact on the health of indigenous population than it is generally believed. A distinctive feature of nutrition in the Arctic is the amount of protein consumed. According to calculations, an adult Eskimo in the early 20th century normally consumed, on a daily basis, 1.8-2.2 kg of meat from sea mammals (Krupnik, 1987). Meat and fat are essential components in the diet of the northern indigenous peoples because, together with plants, they are main source of energy, vitamins and micro-elements.

This diet led to genetic adaptations and the development of adaptive mechanisms, including a reduced level of hormones in the thyroid glands and pancreas, specific biochemical processes, whereby the breakdown of fat takes precedence over its synthesis, and the utilisation of protein as the main source of energy rather than carbohydrates. Figure 2.1 compares the recommended and actual nutritional pattern of northern populations in some Russian regions.

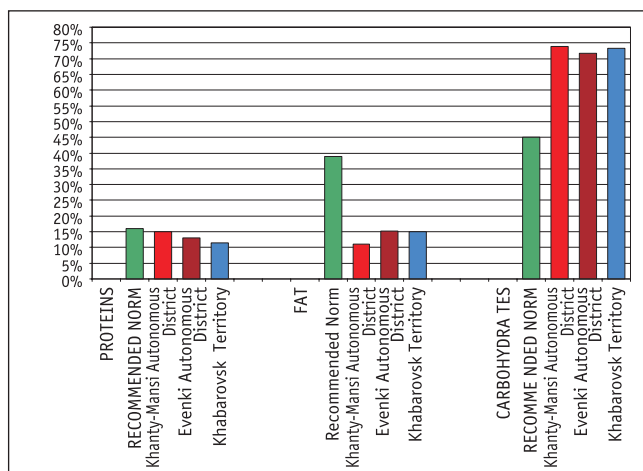


Figure 2.1. Recommended and actual nutritional pattern of northern indigenous peoples in some Russian regions, according to data of the State Statistics of the Russian Federation (compiled from Pika and Prokhorov, 1994).

Over past decades, the fat metabolism of northern indigenous peoples has been subjected to a radical 'modernization' due to the aggressive promotion of 'soviet', and more recently 'western' lifestyles and food habits. This has affected the balance of lipids and sugars in blood, which, together with an overall decrease in physical activity, has led to the development of various diseases, in particular atherosclerosis and insulin diabetes.

The major change in dietary habits began during the Soviet period, when the reindeer-breeders nomadic herding routes were changed, followed by the virtual cessation of traditional activities. Fishermen and hunters, both on land and sea, were affected by various restrictions introduced by the government, and by the falling populations of fish and animals. This was accompanied by the spreading influence of imported food products and a greater orientation towards 'ready-made' or 'European' food.

The overall result was a reduction in the amount of meat, fat and local plants in the diet of northern indigenous people, as they adopted an unfamiliar diet. According to data provided by the State Committee for Statistics for the Republic of Sakha (Yakutia), consumption of wheat bread is 146% of the recommended norm and sugar and candies 492%, while the consumption of meat is only 82% of the recommended physiological norm, fish is 39%, and vegetables less than 50%. It is no accident that obesity, and endocrine diseases have increased, and that there is high level of anaemia among pregnant women and children.

Increased content of carbohydrates in the diet has made mechanisms of food assimilation less effective. This particularly affected children in nurseries and schools, where carbohydrates and dairy products formed a significant part of their diet. Menus in these institutions were compiled to match those in central and southern regions, without taking the peculiarities of the metabolism of indigenous children into account. Until recently, staff in educational institutions were

unaware that dairy products and sugar could not be properly metabolised by some children. It should also be noted that, until recently, prolonged breast-feeding, (sometimes until the child is 6-7 years old), has been important in the development of immunity to diseases.

Disruption of lipid metabolism in people, affects the oxygen balance in tissues, which is aggravated by a lack of iron. The failure in supply of essential micro-elements is a result of both changes in dietary habits (for example, deer previously acted as a kind of 'repository and carrier' of biologically integrated micronutrients), and also from changes to lifestyle, in particular the reduction and discontinuance of migrations, which had previously ensured the enrichment of food with micro-elements derived from different geological environments (Kozlov and Vershubskaya, 1999).

It is clear that various adaptive changes were previously useful and helped ensure the survival of indigenous peoples in an extreme climate. However under modern conditions, many of these adaptations have become useless or even harmful. Mechanisms that evolved to protect health may now contribute to its decline, encourage a range of diseases and impede general development, including that of higher mental functions. For the Arctic and subArctic populations, a well-known saying could be re-phrased as follows: 'negative factors occurred in the wrong place in the wrong time' (Kozlov and Vershubskaya, 1999).

Furthermore, negative dietary and lifestyle changes affect different aspects of the physiological system. Carbohydrate and lipid metabolism, which are closely connected to each other, are both affected, making adaptation processes more complicated.

Examination of the range of traditional food products consumed, and traditional cooking methods of northern indigenous populations can provide further insight.

2.7. Traditional food and dietary habits

The indigenous peoples of the Arctic have traditionally shared the same nutritional base (which is one of the criteria used to classify northern indigenous people). This similarity and peculiarity in diet derives from both food products used and cooking methods. The diet has developed through a combination of geographical location and the traditional activities pursued (i.e. hunting, fishing, reindeer-breeding and gathering) and consists mainly of animal products, sometimes combined with local wild plants.

Historically, the Arctic indigenous peoples consumed only what they were able to obtain themselves locally. Although imported products, such as flour, pasta, cereals, butter, sugar, salt, tea and preserves became increasingly available in historically recent time, people living in areas, where traditional activities were followed, continued to use traditional foodstuffs. In recent years, however, this has changed.

The traditional diet of the northern indigenous peoples is also characterized by the consumption of raw products and the restricted use of forms of heat processing, as introduced via the European culture. Popular means of cooking food included baking using stones, sand and open fires. Boiling was used only occasionally, pickling not at all, and oil-frying only became popular due to the influence of other cultures.

Traditional cooking methods were a practical response to a lack of metalware, ovens, salt, and other factors.

As described above, through prolonged use of animal products as a source of food, the northern indigenous peoples have developed a genetically fixed pattern of metabolism to utilise the protein-fat rich nutrition, which helps protect their health.

In the recent past, when the traditional diet was still widespread, many indigenous peoples from the various Arctic regions actively consumed raw meat; fat and fresh blood (from reindeer, walrus, seal, and whale). These products were consumed immediately following slaughter while they still maintained their excellent taste properties and proteins.

Blood was consumed not only fresh but virtually 'live', from a cut made in a reindeer's artery while the animal was still alive. Blood was often mixed with other products (pieces of liver, kidney, marrow, or reindeer milk, and also fresh fish). Reindeer or sea mammal meat, was used to make a broth, which provided a quick restorative of physical strength and also acted as medicinal agent.

The excellent taste properties of meat from reindeer and other hoofed animals was partially due to the unstressed state of the animal when killed, quick slaughter, and special ways of exsanguination.

Until recently, raw animal products were generally frozen while still fresh, and then served sliced, chipped or broken into small pieces. Raw meat or fish was usually served with berries (bilberries, cowberries, cloudberries, crowberries), wild leek, and other pickled or frozen plants. Other popular dishes were meat and fish dried in the open or smoked over open fires in the traditional lodge. These traditional foodstuffs were complemented by poultry, including partridges (all year long), geese, ducks (in summer) and also eggs. Apart from berries, various parts of plants, wild roots, mushrooms and moss were also eaten.

The main natural food products used include:

- Terrestrial mammals: reindeer, hare, elk.
- Marine mammals: whale, walrus, seals
- Birds: geese, ducks, partridges
- Fish: freshwater and anadromous – whitefish, loach, smelt, trout, grayling, salmon (Siberian salmon, hunchback salmon, and other kinds), pike, burbot, perch; marine - herring, navaga, pollock.
- Plants: leaves or fresh shoots from polar willow, wild leek, several kinds of sorrel, laminaria (seaweed), mushrooms, berries (cloudberries, crowberries, bilberries, cowberries, blueberries, cranberries and currants).

2.8. Environmental challenges

Changes in the environment (both ecological systems and social relations, including those between ethnic groups) always require an adequate feedback response. Stress symptoms are frequently caused by exposure to extreme experiences, and in such circumstances an individual can lose control of social aspects of their life. Rapid changes in the environment, which overwhelm previously developed adaptive responses can aggravate the stress. The most destructive 'environmental changes' experienced by the northern indigenous peoples were forced separation of children and parents, prevention of family nomadic lifestyles, and the decline of traditional economic activities and self-administration in communities. Natural disasters and anthropogenic upheavals can both have a seriously deleterious effect on human health.

It is health (in the broadest sense of the word) that is the most important factor in survival, both for an individual and for the whole community. This is a critical issue for the indigenous peoples of Arctic Russia, who, under the pressure of increasing social and health problems, now collectively feel a deep sense of crisis.

Environmental problems, including both destruction and pollution of the natural environment are of special concern. Sources of pollution can be both in the immediate vicinity of indigenous communities, and also far distant from the Arctic. Chemical substances accumulate in traditional foods, such as plants and animals, and thus enter the bodies of northern indigenous people.

The northern indigenous peoples are effectively caught in a dilemma: on one hand, rejection of traditional food and lifestyle threatens both their community and individual well-being and cultural identity, and on the other hand, the same traditional foods have become suspect as a result of chemical pollution.