

**Property Rights and Transformations in
Russia:
Institutional Change in the Far North**

by

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Property Rights and Transformations in Russia: Institutional Change in the Far North

This paper is an in-depth study of the transformation of property rights systems in a far northern region of Russia--the Yamal Peninsula.¹ Although the region is remote, the issues are central to larger questions, including development policy, assistance by international lending institutions in the rebuilding of the Russian economy, and tailoring of privatization policy to achieve multiple policy goals of a culturally and environmentally diverse society. Thus, the questions raised here reach beyond Russia to touch on issues of equity and sustainability, as well as successful economic transformation.

The system of property rights that emerges on Yamal will have a powerful impact on the culture and economy of the reindeer herding Nenets who have lived there for centuries. The property rights system developed there will also determine, in large measure, whether the indigenous local people have a say in or even benefit from development of the supergiant gas fields on the Peninsula.² As potential western investors know from experience elsewhere in the Circumpolar North, the vast energy resources of Yamal could be developed in a more secure political environment with (rather than without) the support of indigenous residents.

This detailed study of the Yamal Peninsula elucidates the larger principle that the economic transformation in Russia needs to be supported through institutional development, especially through the allocation of property rights in a manner that protects local economies and allows the indigenous population to participate in decision making as well as share in

the benefits of development. As experience in Alaska and across the Canadian North demonstrates, according substantial property and even political rights to indigenous peoples need not constitute a barrier to larger national agendas for development of oil and gas resources.³

Privatization plays a central role in Russian policy for transforming the Russian economy to a market system, but as others have pointed out, the achievements to date fall far short of achieving a shift to a market economy. Michael McFaul, in a recent article in *World Politics*, attributed the failure to transform Russia's economy to the inattention paid to dismantling "old Soviet institutional arrangements governing property rights of large enterprises."⁴ McFaul advocates the exercise of state power to create institutions that support and stimulate a market economy and enforce hard budget constraints for large enterprises, such as a legal code regarding private property, regulation of corporations, and a social safety net.⁵ Additionally, he explains how the failure to transform and develop political institutions has hampered de monopolization of the economy, left workers dependent on enterprise directors to provide all social services, concentrated ownership and power in the directors of enterprises, and thereby undermined the success of economic reforms. Beginning from the same premise--that institutions are key determinants in social and economic outcomes, I have adopted a narrower geographic and topical focus than McFaul in order to illustrate the importance of institutional change to a successful as well as equitable and sustainable economic transformation.

This paper describes and characterizes the three types of property crucial to the local reindeer herding economy predominant on the Yamal Peninsula: (1) reindeer, (2) the economic infrastructure or productive

arrangements for processing, storing, marketing and transporting reindeer meat and other products, and (3) land. The paper examines the shifts in rights to each of these types of property during and following the Soviet period, and considers the environmental, social, and economic impacts likely to emerge from the combination of property rights developed to deal with each type of property.

The first section of this essay provides the geographic, political, and historical background necessary to understand the current situation. The second section elucidates the concept of property rights by defining four broad categories of rights: proprietary, exclusionary, disposition and use rights. The third section draws on this lexicon of rights to describe the current situation with regard to each type of property on Yamal and the interplay among alternative structures of property rights. The fourth and final substantive section considers options for the future and offers recommendations to international lenders and those involved in aid to and reform of the Russian economy. It highlights the importance of designing property rights arrangements that foster both local and national economic well-being.

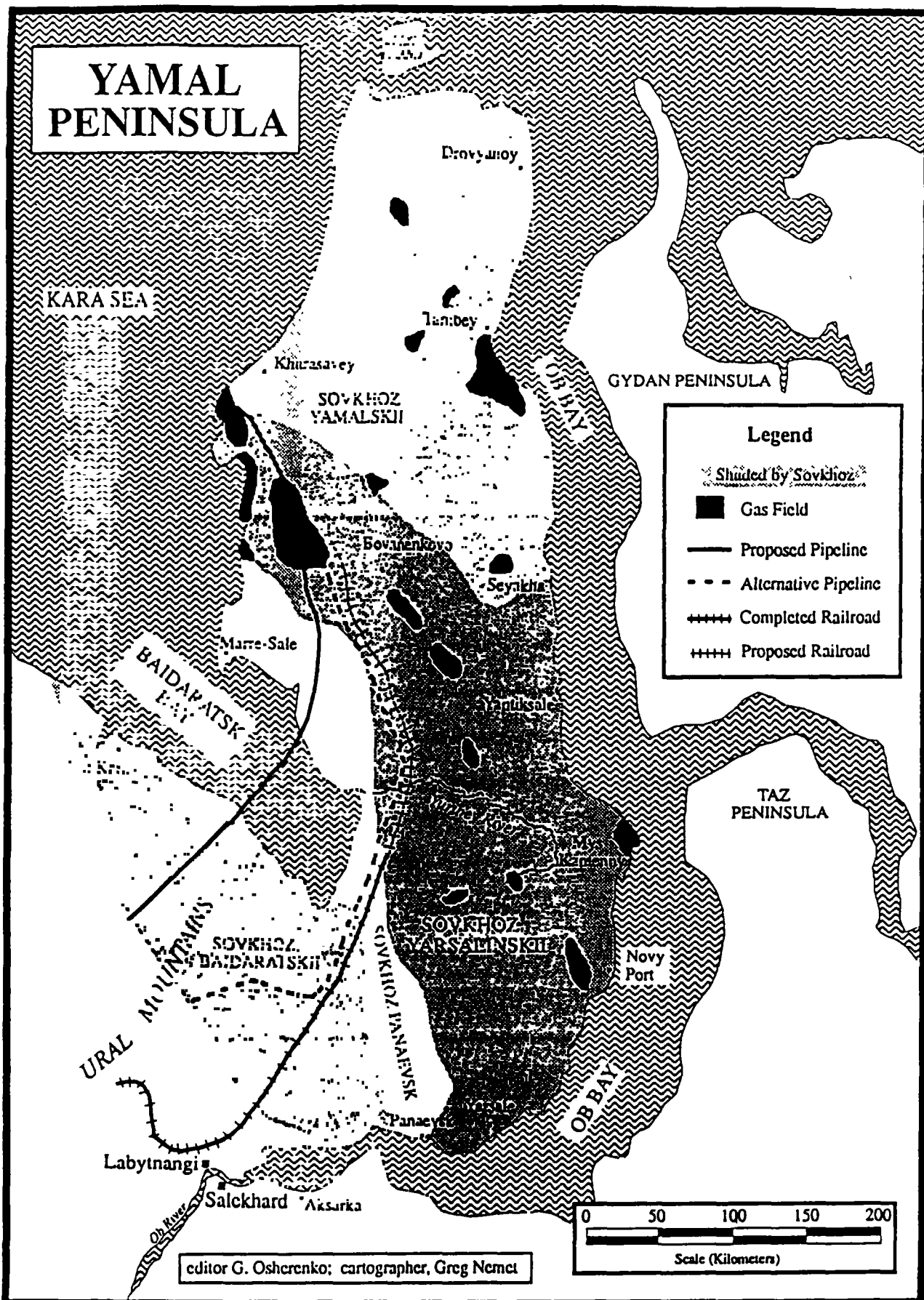
I. Background

In the later part of the 18th and first half of the 19th centuries, the hunting/foraging culture of tundra Samoyeds (Nenets) who owned small domestic herds of reindeer for transport developed into a radically different form of large scale reindeer breeding that relied on herding rather than hunting for food production. Anthropologist Igor Krupnik⁶ sought to explain the causal factors that brought about the transformation. He concluded that Nenets were able to make this radical and successful economic and social

transformation due to a remarkable convergence of climatic and social factors. Faced with stressful, in fact, crisis conditions, Nenets (and some other inland Siberian tundra reindeer breeders) reconfigured their economy over the relatively short span of 150-200 years.⁷ Today, large scale domestic reindeer breeding remains the backbone of Nenets economy and culture in the Yamal-Nenets Autonomous Okrug. On the Yamal Peninsula, Nenets and some Khanty living in canvas and reindeer hide teepees move with their families and the herds to designated pastures in a six-season rotational cycle. Slightly over half of the 9,000 indigenous people of the Yamalskii Raion lead a nomadic or semi-nomadic life.

INSERT MAP 1 ABOUT HERE

The Yamal Peninsula emerges from the northeastern foothills of the Urals and the mouth of the Ob River and stretches north to latitudes comparable to Pond Inlet in the Canadian North and Point Barrow in Alaska. (See map 1.) This large finger of tundra and wooded tundra land covers 122,000 square kilometers, all north of the Arctic Circle. The west and north coast border the Kara Sea; the east coast, Ob Bay. Politically, the Peninsula lies within the Yamal-Nenets Autonomous Okrug. Of the 6 districts (*raiony*) in the Okrug, one *Yamalskii* (Yamal District), with its administrative center in the town of Yarsale, covers most of the Peninsula. The Priuralskii Raion, headquartered in Aksarka, includes the base of the peninsula and contains only one sovkhos—Baidaratskii. In the Yamalskii Raion three large state farms (the sovkhoses Yamalskii, Yarsalinskii, and Panaevskii) today direct



Source: Redrawn from HBT Agra, Calgary, and local maps. Reprinted with the permission of V.H. Winston and Son, Inc. and previously appeared in Post-Soviet Geography (April 1995).

the main economic activity of indigenous peoples -- reindeer breeding/herding -- as well as fur farming, hunting, dairy and livestock breeding. Two fish factories--Poiko and Novy Port--conduct commercial fishing.⁸ In the 1970s, reindeer husbandry was considered one of the most productive branches of the economy.⁹ It continues to be the main source of meat for the indigenous population.

Oil and gas development is a relative newcomer to the peninsula, although oil and gas production to the south and east fuels the economy of the Okrug.¹⁰ With the discovery of the huge Bovanenkova and other natural gas fields (see map), Nadymgazprom (the branch of the Russian State gas company with a monopoly in this geographic region)¹¹ plays an increasing role in shaping the future of Yamal. At the federal level, the Russian Ministry of Fuel and Energy exercises regulatory and policy authority for development of the gas and oil fields and related transportation network, and the Russian Ministry of Ecology and Natural Resources is responsible for environmental protection. The major non-Russian player is Amoco Corporation of Houston, Texas, the only foreign company to have established offices in Nadym.¹²

For the last 60-70 years the Soviet government imposed its own institutions upon the political and economic system developed by indigenous people. The government forced collectivization, industrialization, and modernization of the economy and settled much of the population in villages and towns. Despite these disruptions, Nenets culture remained remarkably intact. Kinship and family units remain important organizing forces on the tundra, in the settlements, and in links between these two. Items of material culture that proved their worth persist. Reindeer provide transportation, clothing, shelter, food, and even sewing thread for the

nomadic population. Children in the nomad camps play with dolls made of felt with loon beak heads as did their grandparents. Legends and stories lasting an hour, or even three hours, are retold in the *chums* (teepees) of tundra dwellers by old men who carry and transmit the oral history and behavioral codes of their people. The expected social behavior favors family and community life over the individual; rules regarding conduct are observed and punished in traditional ways. The ancient shamanic, animistic religion is still practiced today by Nenets who "feed" the helping spirits of household and tundra and ask for help and guidance from them.

In the 1990s, however, a new set of natural and human induced changes are producing conditions of stress and crisis for Nenets herders. These include the threat of climate change, both natural and human-induced, reduction in available pasture land due to competing uses for gas and oil development as well as the transportation infrastructure related to that development, pressure to create new national parks (*zapovedniki*) and protected areas and, most importantly, changing systems of rights and rules governing access to and management of land and resources. The large state farms have suffered economic stresses of the transition to a market economy, including: breakdown of distribution systems, inadequate storage and processing, and repercussions of the crisis of nonpayment.¹³ Destabilization due to the shift from a centrally managed socialist economy to a capitalist market economy is spreading North.

Overgrazing, long a problem on the peninsula, is exacerbated by the transfer of thousands of hectares from the sovkhoses to the oil and gas industry. Scientists and land managers from the Okrug now report serious overgrazing in some areas, and regional newspaper articles report very high

numbers and density of herds. Land use in Yarsalinskii sovkhos (the largest of 4 state farms on the Yamal Peninsula) is intensive. "A tight situation" in the words of Mikhail Soluvich Ladukai who heads the land reform/resources office in Yarsale (a branch of the Salekhard office). "The herders move in very narrow corridors [during the spring migrations north]. The northern group stays only one day in Yarsale, and only the southern group [the last to cross Ob Bay from the mainland] may stay a week. The northern group only rests when it reaches the coast." Ladukai described how the herdsmen themselves feel they are "racing," pressured to move daily, quickly, to new pasture land as the herds have become larger while pastures have been reduced and the quality of vegetation has declined. Ladukai also reported that in the summer of 1993 in the northern sovkhos, Yamalskii, there was a kind of craziness in the reindeer as a consequence of the density. Researchers of the Yamal agricultural station in Salekhard call for drastic cuts in the herds, especially on the peninsula.¹⁴

A fundamental question today is whether the combination of stresses and pressures from both human and climatic sources will push Nenets society to find successful adaptations in their economy and way of life or will lead to destabilizing and destructive changes. Has the ability of tundra Nenets culture to adapt to changed conditions been compromised by the imposition of outside institutions in the Soviet era? Are the circumstances or magnitude of change too great to allow Nenets to make the necessary adjustments without increasing undesirable social ills? This paper addresses how new institutions of the post-Soviet period might be designed to minimize negative impacts on the culture and natural resources and, at the same time, allow Nenets to stabilize their economy.

Historical background of property systems

In the last 70 years, the Soviet government changed the preexisting mix of indigenous and Russian systems of local self-rule and kin based property rights and imposed new forms of organization and management on the herding and fishing economy.¹⁵ In the late 1920s and 1930s, the Soviet government annihilated the local forms of self-governance, consolidated cooperatives that had been set up in the 1920s, created a system of kolkhozes, and expropriated property from rich reindeer herders.

In the first years following the 1917 Revolution, the central government, preoccupied with other concerns, exercised no real authority over the northern regions and made no efforts to rein in exploitation of natives. Concern for the fate of northern native peoples especially among anthropologists eventually gave rise to a new "Committee for Assisting the Peoples of the Far North," commonly known as the Committee of the North. The policy debate over the fate of the territories populated by northern natives occurred within this Committee. "Protectionist" or "conservative" members of the Committee argued that native people exemplified a kind of "primitive Communism." They advocated establishment of reserved lands somewhat akin to American Indian reserves, prohibition against new settlers, a ban on sale of alcohol, limits on private trade, creation of nomadic schools with native teachers, and provisions for food, clothing and medical services.¹⁶ The dominant members of the Committee, the "radicals", however, believed that a "primitive" and nomadic life was incompatible with Communist doctrine and collectivization. By 1929, their policies

classified wealthy herders who used hired labor, leased reindeer, or took part in trading operations as kulaks.¹⁷ Thus, on the Yamal Peninsula, the leaders of large family clans became targets of the collectivization policy.

Like other indigenous groups, Nenets reacted negatively to attempts to collectivize herding, break down the clan structure which was regarded as a threat to Soviet authority, and repress the native leaders. Zealous non-native local officials tried to impress superiors with their communist loyalty by taking personal property (reindeer, household goods, even tents and housing) of "rich" herders, or simply used the fervor of the times as an excuse to seize reindeer, fish, and furs of the natives. Rather than welcoming such redistributive policies and attacks on the powerful, many Nenets recognized wealthy "bosses" as providers of communal security. Some nomads responded to the new policies by moving further into the tundra out of official reach.¹⁸ The influx of herders with large herds moving to Northern Yamal at the end of the 1920s and beginning of the 1930s disrupted prior patterns of pasture use and threatened to exhaust pastures.¹⁹ In extreme cases, natives revolted.²⁰ In 1934, Khanty and forest Nenets of Northwest Siberia rebelled against assaults to their way of life in what has become known as the Kazym revolt. And a Nenets elder recalled how "the tundra wavered under the feet of warriors" during the 1943 Nenets *mandala* on Yamal and in the Polar Urals.²¹

As collectivization proceeded, the Soviet authorities disrupted the system of ownership by a few large herders and divided pastures into a larger number of family units. At least initially, the underlying control of pasture lands by family units survived within the framework of the newly instituted *kolkhozy*, collective farms.²² Slezkine describes the kolkhozes as becoming

the "simple productive units in which members were supposed to pool their resources for specific tasks" ²³ while retaining property rights (private ownership of herds and continued rights to use specific pasture lands in specific seasons). The degree to which kin ties continued to form the basic organizing units of kolhozy and later of brigades within sovkhozy on the Yamal Peninsula requires further research.

Simultaneously with collectivization, the push for economic development brought hordes of non-native newcomers (exiled "kulaks" and peasant recruits from southern provinces) into native lands of northwest Siberia as workers in mines, commercial fisheries, sawmills, timber cutting, river transport, and agriculture. ²⁴ This invasion of outsiders stopped short of the Yamal Peninsula but did push forest Nenets and Khanty north to escape the ravages of newcomers in the southern areas.

In 1897 only a handful of non-natives lived on Yamal. In 1926, incomplete census figures indicate some Russians lived at Novy Port, Puiko, and various trading posts. However, during the Stalin years the population of non-natives grew substantially totaling more than a third in 1939.²⁵ By 1959, the 4,680 indigenous people composed only 57 percent of the population. Their absolute and relative proportion both increased by the 1970 census, but by 1989, the indigenous population was in the minority with 49 percent of the district population.

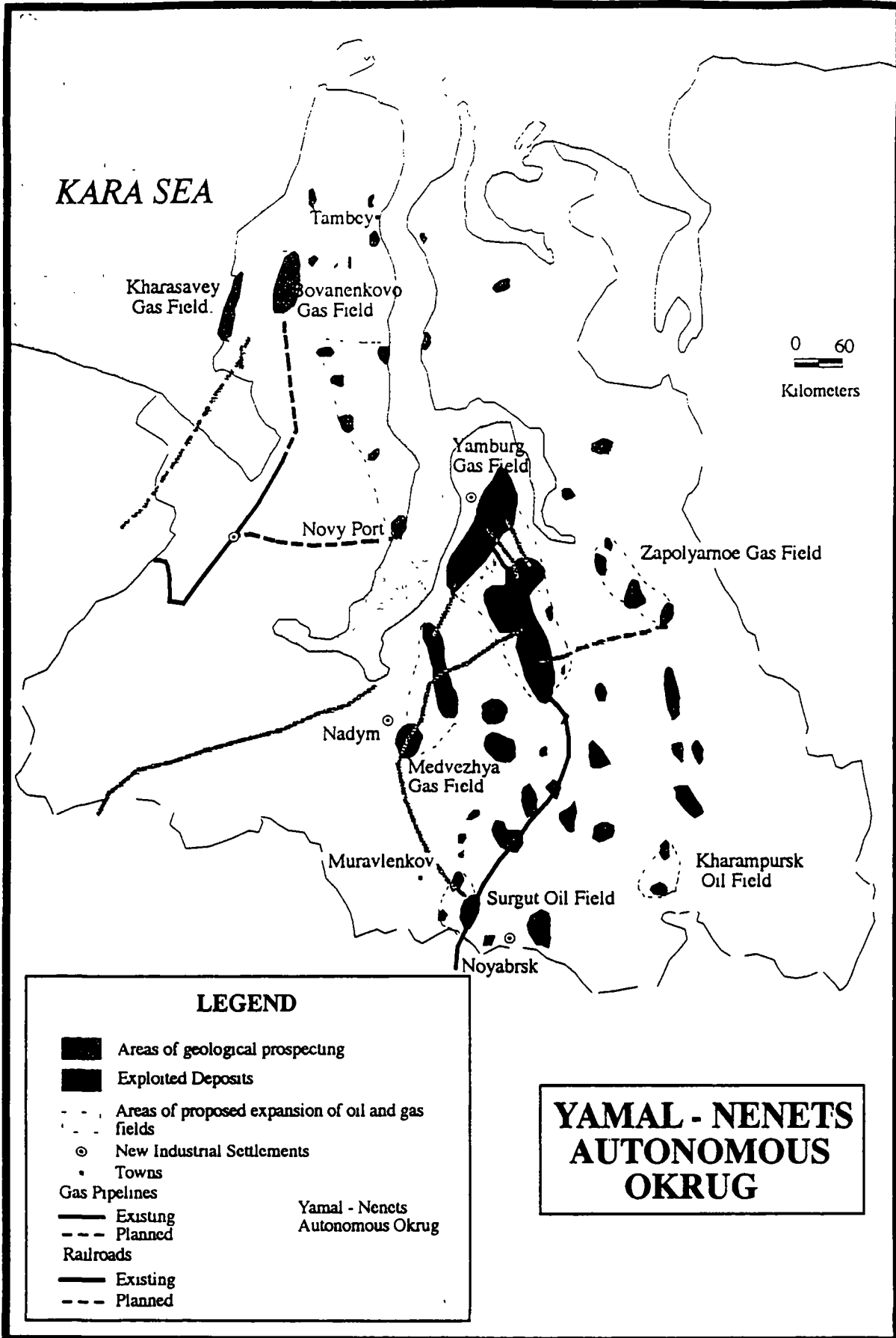
INSERT TABLE 1 HERE

TABLE 1
Population of the Yamalskii Raion, Yamalo-Nenetskii
Autonomous Okrug

Census Year	Nenets	Khanty	Total Indigenous Population	Total Population
1897 ¹	1,320	3	1,323	1,338
1926	3,229	4	3,233	3,233
1939	5,273	246	5,519	8,430
1959	4,533	147	4,680	8,245
1970	5,852	232	6,084	9,727
1979	6,251	289	6,540	12,334
1989	7,181	279	7,453	15,119

¹ Based on incomplete registration.

Source: Table compiled by Alexander I. Pika and Dimitry Bogoyavlenski from census materials and data in state and departmental archives in Russia. They note that many scholars believe the 1939 census materials were falsified to show an increase of 2 million persons in the total population of the Soviet Union. This may account for the high figures shown here for 1939. This table appears as Figure 45 in Pika, Bogoyavlenski, Schindler and Osherenko, "Northern Sea Route Social Impact Assessment: Introduction," discussion paper prepared for the International Northern Sea Route Programme (INSROP). Reprinted here with permission.



Source: Compiled from Arctic and Alpine Research, v.24, no.2, 1992, p. 104 and other local sources.

Today 58 percent of the residents of the Yamal District are indigenous (Nenets, Khanty, Selkup)²⁶ though they comprise only a small percentage (5-6 percent) of the total population of the Yamal-Nenets Okrug, which is governed politically from the Okrug capital, Salekhard, exactly on the Arctic Circle, and dominated economically by the new oil towns of Nadym, Novy Urengoi, Noyabr'sk, and Muravlenko. (See map 2.)

INSERT MAP 2 ABOUT HERE.

Central government policy from the 1930s aimed at settling the nomadic population in villages, in part to increase the labor available to work in the rich fisheries of the Ob and its estuary. Despite sedentarization policy, Nenets on Yamal for the most part remained nomadic through the 1930s. Remarkably, even in 1994, fifty-one percent of the indigenous population in the Yamal District (4,587 people) are nomadic. And of that number, slightly more than half (52 percent) are women, indicating that families, not just men, comprise the tundra population. Although these nomads are attached administratively to specific settlements, they continue to travel with the herds.

The Committee of the North, having rejected American style "reserves" that could become enclaves of Native poverty and backwardness, created new national administrative regions (national okrugs) and districts (national raions) to protect native interests. However, as Slezkine recounts, reality did not measure up to the ideal. The Soviet government never adequately funded the new administrative apparatus, so native councils had neither money nor paid personnel. The only source of revenue for indigenous administration came from native (kulak) taxes.²⁷ What, in the

view of Slezkine, began as a compromise designed to protect the indigenous population had, in fact, the opposite result. While nominally entitled to equality of rights under the law, the small native communities lost some special protections. The imposition of new institutions, ostensibly designed to protect natives, led to a decreasing share of government resources being directed to them even in areas where the indigenous population still dominated numerically.²⁸

Soviet policies of consolidation and sedentarization disrupted the lives of individual families and historical ties to particular lands. From the 1940s, Soviet authorities reorganized the kolkhozes (collective farms) of Yamal merging smaller farms into larger units, further removing each from traditional leadership. In 1947, the Soviets closed 8 kolkhozes of the former Tambey District in northern Yamal and relocated 335 households to southern Yamal.²⁹ Eventually, in 1962, the Soviets consolidated the collectives into a handful of large state farms, sovkhoses, with the former "members" of kolkhozes becoming "workers" for the sovkhoses.³⁰ Reindeer increasingly became the property of the sovkhos as did the use rights to pasture land. One of the most disruptive elements in this reorganization was the fact that boundaries between the sovkhoses became rigid, reducing the former flexibility that Nenets had used to cope with natural fluctuations in climate, vegetation, and animal populations. The sovkhos structure concentrated control in the hands of a few managers at the top—until recently, non-natives. According to Kuzyukov, Deputy Head of the Committee on Land Resources and Land Use Planning for the Okrug, polls were taken and historic experience as well as biological and geographic information considered in

creation of the sovkhoses. Nevertheless, as he explained, "the decision [to unite into sovkhoses] was totally arbitrary," and consolidation, a bad idea.³¹

Despite the imposition of outside institutions, Nenets managed to retain and, from the late 1980s, revive elements of their traditional organization. For example, the director of the Yarsalinskii sovkhos reported that most of the numerous brigades within the sovkhos are composed of family members, somehow related--father, sons, brothers. Further, the brigade leaders are likely to be herders with the largest holdings of private reindeer.³² Still, the modern brigade camps are considerably larger than were traditional camps, and migration routes have been radically altered.

Today the indigenous population of Yamal may be divided roughly into nomadic and sedentary. The nomadic population engage mostly in reindeer breeding/herding. Hunting, berry gathering, fishing, and related subsistence activities are also important. Although administratively each nomad family is listed as belonging to a particular village or settlement, most move with the herds, living in teepees [*chum*] on the land. The sedentary population lives permanently either in small villages [*poselki*] of 200-500 people or in the larger administrative or economic centers. In the villages, natives hold jobs related to the fishing and fish processing industry or for one of the cooperatives, the sovkhos, or the government. Only tiny minorities of non-natives live in the small settlements, but they frequently hold the leadership posts and top paying jobs. Summer *chums* are a common sight close to or even in the villages, as settled Nenets families expand their cramped apartment quarters with the traditional form of mobile summer home. A wider ethnic mix of Russian, Nenets, Khanty, and others live in the

district center, Yarsale, and in towns tied to fish factories or oil and gas development --Panaevsk, Novy Port, and Mys Kamenny.

Continuation of the nomadic way of life is essential to continuation of Nenets culture as we know it today. As ethnographer Golovnev explains, "the tundra [is] the main production base and hearth of traditions."³³ Most settled Nenets families have relatives and ties to tundra families and define their culture in terms of reindeer herding, not life in the settlements. Any change in the system of property rights relative to reindeer herders could have significant effects on the survival of the form of large-scale reindeer breeding and thus produce a major change in Nenets' culture.

II. Systems of property rights: definitions and concepts

A growing body of scholarly literature suggests that small and stable societies have often worked out successful common property systems to manage land, water, and other natural resources upon which their economy and continued way of life depend. These systems of rights for dealing with shared resources such as fisheries, reindeer pasture, or forest lands provide better protection of natural resources and are more likely to ensure survival and health of diverse cultures than either systems of purely private or purely public property. Successful common property arrangements are not those in which the common property is open to all with no or few rules but are, in fact, systems in which access is limited to a specific group of users, and rules for use are well-defined.³⁴ McKean and Ostrom³⁵ have argued that common property is really a form of shared private property. This may be useful in convincing those for whom the gospel of private property is sacred, but it

does not tell us much about the exact set of rights characterizing varying forms of common property.

Instead, we can divide property rights into four categories of rights, none of which make the property definitively public or private. Conceptually, property rights are really bundles of rights, and these bundles can be divided into **proprietary, exclusionary, disposition, and use rights**.³⁶ Proprietary rights are possessory rights. The right of possession (of land, machinery, tools, livestock, or even stock in a corporation) entitles the owner (who might be an individual, a family, a group of investors, or even a government entity) to keep, reinvest, or apportion the value that accrues to the property and exposes the owner to the risk of loss if the property loses value. Proprietary rights may entitle the holder to collect for damages to the value of the property (i.e. compensation for damage to a car or unlawful killing of a reindeer) and expose the owner to liability for damage caused by the property (a collision caused by a car, disease spread by an infected reindeer).

Exclusionary rights entitle the holder to exclude others from using the property (prevent trespassers from crossing a field, exclude those who don't hold a proper fishing license from fishing in state waters, set conditions or rent for others to use the property). Some property rights allow the holder to exclude certain groups of people from sharing in the rights. For example, only Alaska Natives may hold shares of stock in Alaska Native corporations. The holder of exclusionary rights may grant others the privilege of using the property, set fees or rent for use by others, and determine other conditions of use.

Disposition rights entitle the holder to dispose of the property or, in legal terminology, to "alienate" the property. Full rights of disposition or alienation would allow the owner of land to sell or give land to any legal person or entity. In the case of common property, however, rights of alienation might be restricted so that fishing rights or pasture land could only pass to other members of the local community, or to clan members. Members of a farming cooperative might be required to sell only to the cooperative; we would say their disposition rights are restricted. Frequently, states prohibit sale of certain lands or resources to foreigners.

Use (usufructory) rights entitle the holder to use a particular property for specific (usually limited) purposes (such as housing, commercial business, extraction of oil and gas, grazing of livestock). Use rights may be limited to a particular time (a 99 year lease or an annual hunting and fishing license granting access to particular lands and waters). With the state as the legal owner of title to land in Russia, until recently, virtually all real property rights held by individuals and enterprises in Russia have been usufructory rights.

In the current move to privatize property, Russian citizens are receiving a bundle of rights with some sticks from each of the four categories above. It is important to notice that when land rights were limited to specific uses, as they were in the Soviet Union, fewer regulatory restrictions would have been needed than in a system where ownership encompasses a wider range of proprietary, exclusionary, disposition and use rights. Where the state does not retain proprietary, exclusionary, and disposition rights, and allows those uses not specifically excluded, extensive laws and regulations have been adopted over time to protect the public interest in safety and environmental

quality or to prevent one owner from using the property in a manner harmful to a neighbor's interests. The implications of this are significant in a period of transition from state to private ownership as restrictions for health, safety, environmental quality, and equity built into the prior system may be dropped in the initial privatization period, and it may be years before safeguards can be replaced by laws that are implemented and enforced. In fact, at least in the agricultural sector of Russia, laws regulating land relations and agrarian reform retain use restrictions. Members of state and collective farms who receive a share of land have the right to mortgage, lease, exchange, bequeath, and even sell their allotment, but the use of the land remains restricted to agricultural production except in special cases where local authorities permit a change in use.³⁷

III. Property rights on the Yamal Peninsula

This section discusses the three types of property central to the future of the traditional herding economy on the Yamal Peninsula--reindeer, the economic infrastructure or productive arrangements now controlled by large state farms (storage and processing facilities, transportation, distribution, and marketing systems), and land. Since the 1960s, reindeer herding has been conducted by sovkhoses--large government owned agricultural enterprises similar to public corporations. These business entities hold capital assets such as reindeer, meat processing plants, and storage facilities. They arrange provision of supplies to herders. They also hold limited but extensive proprietary, exclusionary, and use rights to the vast pasture lands of the peninsula and play a key role in determining disposal of these lands either to

individual herders or to industrial enterprises. Reindeer, as we know from the earlier discussion, were owned by individuals or households prior to collectivization in the 1930s. From that time through the Soviet period, private herds on Yamal were diminished but not eliminated. Today, reindeer ownership is shifting again from the state farms to private individuals/families.

Reindeer

To ask the number of reindeer a Nenets owns is as impertinent as asking an American to tell you his net worth. And while a stranger or poorly schooled ethnographer might receive an answer to such a question, the answer could not be regarded as reliable. Whenever I recorded figures from the official statistical tables regarding number of reindeer owned by individuals, I was cautioned that herders regularly under-reported their wealth. Nevertheless, figures from a variety of sources are useful for rough comparison of the total number of reindeer in different geographic areas of the okrug over time and for comparing the relative number of private versus sovkhoz herds. In the view of some officials, the problem of under-reporting is declining as incentives change. Rights to land and compensation for damage to pastures may be calculated on the basis of the number of reindeer owned, making it advantageous in certain circumstances to report actual or, possibly, higher numbers.

In 1941, the total number of reindeer reported in the Yamal-Nenets Okrug was 358,000.³⁸ With shrinking area available for pasture land today, the official count of 357,000 is widely regarded as exceeding pasture capacity.³⁹ One specialist in agriculture calculated in 1994 that herds should be cut by 120-

130,000 head okrug wide with half of that reduction necessary in the Yamal district (60,000) and up to a quarter in the Priural district (25-30,000 head).⁴⁰ Most of the reindeer are located for all or part of the year on the Yamal Peninsula, pastured on lands to which the large sovkhoses hold use rights. The estimates of reindeer in the Yamal district range from 200,000-300,000 head. Figures for the two largest sovkhoses total 247,000 reindeer. ⁴¹

	<u>total reindeer</u>	<u>private</u> ⁴²	<u>sovkhos</u>
Yamalskii sovkhos	147,000	130,000	17,000
Yarsalinskii sovkhos	100,000	64,000	36,000
Total	247,000	194,000	53,000

The figures above for the Yamalskii sovkhos, the northernmost sovkhos on the peninsula, are the high estimate of Vladimir Borisovich Istomin, the new director of the Yamalskii sovkhos headquartered in Seyakha, who reported that the private herds contain 6-8 times as many reindeer as the sovkhos herds. He explained that while the sovkhos cut its herd from 50,000 five years ago to only 17,000 in 1994, the number of deer in private hands has more than doubled to an estimated 100-130,000 head. The Director of the Yarsalinskii sovkhos, Dimitry Khorolya, estimated 100,000 deer on Yarsalinskii sovkhos lands--64 percent private and only 36 percent, sovkhos. In both sovkhoses, the trend is toward further reduction of sovkhos herds as private ownership

increases. The current ratio of private to public herds reverses the situation in the 1970s when only 35-37 percent of deer in the okrug were held privately.⁴³

Crowding is due in part to the fact that seven of the fifty million hectares of pasture in the okrug have been destroyed or damaged by oil and gas development.⁴⁴ The wanton destruction of the tundra environment due to exploration and development of hydrocarbons triggered an outcry from native writers, scientists, and environmentalists in the 1980s.⁴⁵ In 1988, indigenous people from Yamal formed the native association *Yamal Potomkan* ("Yamal for Future Generations") to promote indigenous autonomy and improve conditions in the region. Assessing the high costs of the project and responding to opposition, the government temporarily halted development on Yamal in the spring of 1989.⁴⁶ But the destruction caused by heavy vehicles driven across the tundra in summer had already destroyed pastureland at Bovanenkova and Kharasavey, as well as land surrounding Mys Kamenny, Novy Port, and other exploration sites, as well as land along the railroad corridor.

PHOTOS AVAILABLE IF USABLE - INSERT HERE

Use rights have been transferred by the land resources committee from the sovkhoses to oil and gas enterprises for the Bovanenkovo-Kharasavey gas fields, Novy Port and Rostovtsevo oil fields, and the 530 kilometer corridor for the railway under construction from Ob Bay to Kharasavey. Rail construction had advanced to 214 kilometers by spring of 1994 although the regional environmental assessment office, Yamalpriroda (the regional arm of Goskompriroda, now the Russian Ministry of Ecology and Natural Resources) had only approved construction to 189 kilometers. Destruction and

disturbance of vegetation extends beyond the actual lands transferred out of pasture land. Nenets report reduction in the quantity and quality of cloud berries available due to damage from dust, and plant ecologists note loss of lichens and mosses as well as poor revegetation in some areas.⁴⁷

Herders wish to own a sufficient number of reindeer to provide for their families' well-being (food, clothing, shelter, and transportation -- pulling the sledges that carry the herders' family and belongings--plus sale of at least 10 head/year). Additionally, a herder's conception of the number of reindeer necessary to be considered wealthy may stem from the era preceding collectivization when 10 families on Yamal owned very large herds and regulated relations among themselves.⁴⁸ Today, several hundred reindeer would be considered a large private herd. As expressed by a non-Native sovkhos director, "Nenets are as concerned about prestige as we are, and prestige is tied to the number of reindeer one owns."⁴⁹

The determination of appropriate herd size may also be influenced by Russian oil company officials who have computed compensation for "temporary" use of land for industrial purposes and damages due to oil and gas exploration and development at least partly on the basis of number of reindeer owned and estimated number of hectares needed to support one reindeer. This may heighten incentives to enlarge herds. In addition, western oil companies have talked about financial compensation to individuals or families. "For the first time, herders have a real opportunity to get money without working, and they are naturally interested," explained Istomin.⁵⁰

The size of private herds varies depending on location, quality of pasture, wealth, and know-how. In the Baidaratskii sovkhos in the

Priuralskii Raion, 153 households held an average of 126 reindeer per household at the beginning of 1994.⁵¹ A large herd in that region, according to official statistics, would be about 200 deer in the production herd and 90 additional used for transport. A wealthy herder in the Yarsalinskii or Yamalskii state farms might own privately 300 or more reindeer.

Women frequently own deer as their separate property, although the number of deer recorded as owned by them separately is usually small. A woman is given reindeer when she marries, and these become the breeding stock for a herd that belongs to her. A wife's reindeer are naturally mixed on the range with those of her husband and possibly her brothers and other kin. According to Nenets norms, a man would not make a decision regarding sale or disposal of his wife's reindeer without consulting her.⁵²

Land

Under article 72 of the Constitution of the Russian Federation (RF) adopted December 12, 1993, the Yamal Nenets Autonomous Okrug (like other "subjects" of the RF) has joint jurisdiction with the RF over issues of possession, use and management of the land, mineral resources, water and other natural resources, delimitation of state property, protection of the environment, of historical and cultural monuments, and ecological safety, and protection of the original environment and traditional way of life of small ethnic communities.⁵³ Article 74, section 6 appears to give considerable deference to okrug law in the event of a conflict with federal laws. However, the RF has the authority (under Article 71c,f) to regulate and protect the rights of national minorities, determine basic principles of federal policy and programs in the fields of the economy, the environment, and the

social, cultural and national development of the Russian Federation. The Federation thus retains considerable authority to protect the environment and rights of indigenous peoples, but the component republics, provinces, territories and okrugs now enjoy greatly expanded rights to adopt legislation particular to their regions. In light of the new allocation of authority between the federal government and its component parts, and given the absence of a specific law on the Legal Status of Indigenous Peoples of the North, the validity of preexisting edicts regarding both indigenous land and resource development is uncertain. Two Presidential decrees issued prior to adoption of the Constitution are particularly relevant to Yamal.

On April 22, 1992, President Eltsin signed an edict (*ukaz*) entitled, "Urgent measures to protect the inhabited areas and livelihoods of the numerically small peoples of the North." It called for the Council of Ministers and organs of executive power together with regional associations of northern indigenous peoples, to define areas where people use traditional methods of harnessing nature, and declared that these areas cannot be alienated without consent of the numerically small indigenous peoples of the North. The decree further called on the Government of the Russian Federation to determine a precise list of areas, draft regulations for use of lands in those areas, develop proposals for game reserves, and draft laws on the legal status of northern indigenous peoples, legal status of ethnic districts, settlements, and tribal and communal councils.

A little over a month later, on June 1, 1992, Eltsin signed a conflicting decree calling for the "urgent development" of new large natural gas deposits of the Yamal Peninsula, Barents Sea, and Sakhalin Island shelf. Central ministries as well as oblast and okrug authorities were to draw up and

implement measures to commence extraction of deposits on Yamal no later than 1997. In practice, the latter edict dominated. Drafts of a Law on the Legal Status of the Numerically Small Peoples of the North have circulated since the early 1990s. Scholars have noted that succeeding drafts show a shift away from protection of indigenous rights toward protection of "traditional" activities or occupations of northern peoples.⁵⁴ Although the law regarding indigenous rights to land today is underdeveloped and internally conflicting, it is possible to characterize the system of land ownership existing on Yamal.

The system of land ownership and use in the current period of transition has elements of public, common, and private property. Land is legally "public," owned by the state with management authority increasingly resting with the okrug as opposed to the central/federal government. The land resources or land reform committee of the okrug exercises the authority for allocation of land use rights and determination of disposition or transfer of lands either from the sovkhos to private herders or from use as pasture land to industrial purposes (oil and gas exploration or development). The land reform/resources committees have granted long term rights to sovkhoses to use the land only for traditional activities—herding, hunting, fishing, and trapping. Although the sovkhoses are to be consulted prior to transfer of land use rights to oil and gas enterprises, in practice, one land resources committee official explained, "if the sovkhos doesn't sign, the land service will sign [authorize transfer even without sovkhos approval]."⁵⁵ Only once, in the case of approval of transfers for the Bovanenkova field, did the land service refuse to officially approve, and in that case the land office had the strength of the Okrug behind it, opposing oil and gas development.

Even now, he explained, the oil and gas enterprise is carrying out pilot production [in Bovanenkova] without legal right.⁵⁶

Rights to use the land for reindeer pasture (the dominant use) extends beyond the sovkhos herds to members of the sovkhos who use the pasture for herds belonging to the sovkhos as well as for their own reindeer. The private herds may follow, lead, or even be mixed with sovkhos herds, and only herders are able to identify which belong to them and which to the sovkhos. Thus, rights to use the pastures may be analyzed as a form of limited common property, open to entry by member of the sovkhos brigades with time and manner of use conditioned by the sovkhos and negotiated at biannual meetings of brigade members. Since the end of the 1980s when the government lifted restrictions on private ownership of reindeer, neither policy nor law has limited the number of reindeer in private ownership. Prevention of overgrazing appears to depend on the collective action of individual herder families and brigade members.

Proprietary rights are also shared by the government (okrug) and the sovkhos (public corporation). There is no system for permanent transfer of land title from the state either to individual herders or to industry at the present time, but enterprises are able to obtain the right to use the land for exploration and development of oil and gas for limited periods (usually 3 years for exploration, 10 for development) with the expectation of extension for the life of the field. The rights to the subsurface are owned by the government but transferred to the oil and gas enterprise with a royalty payment apportioned among the central republic, okrug, and raion governments respectively according to the formula 40-30-30.⁵⁷ The former owners of use rights participate in a system of "compensation" for pasture

lands transferred to or damaged by oil and gas enterprises. As of April 1993 according to a new law passed by the council of the Yamal-Nenets Okrug, fifty percent of the compensation to be paid for damage should be paid to the land user (the sovkhos) and fifty percent to the raion government. In practice, both the okrug and the sovkhos spend the compensation money for the same purposes—to provide housing, supplies, and other material support to the local (not just native) population.

As of July 1994, the Land Resources office of the okrug, located in Salekhard, had approved only one allotment of sovkhos land to individuals or families, and that only for a period of one year. The few other requests to privatize plots for indigenous economic activities had not reached the okrug level. Approvals are required by both the raion and okrug offices dealing with land allocation. According to the law, every worker can leave the sovkhos and obtain private use rights to land, but few have seriously contemplated this move. To understand their reluctance, one must understand the basic system of nomadic herding on the Yamal Peninsula and the degree to which the nomadic population is tied into it.

In spring, some herders travel as far as 550 kilometers from winter pastures south of the peninsula in the Nadym district to reach summer pastures along the Kara Sea. They cross the frozen Ob and follow designated migration routes—long narrow strips—transecting two-thirds of the peninsula. According to Khorolya, the Yarsalinskii Sovkhos (the largest in terms of land) employs about 700 nomads, including women "tent workers" (usually wives). The yearly cycle is broken into six seasons with specific pastures designated for each. Colorful maps of the peninsula available in the land resources office in Salekhard demarcate the migration path and seasonal pastures of each brigade

in a single sovkhov. The Yarsalinskii sovkhov had over 20 brigades in the summer of 1994. The boundaries between state farms are fixed, quite strict, and herds do not mix. But between brigades within a sovkhov there may be some mixture. Given the complexities and concerns regarding allocation of pasture, economic difficulty of herding outside of the sovkhov system of land allocation, supply, and payment of wages, herders are naturally reluctant to apply to separate their land from the common pool.

The deputy head of the committee on land distribution and land use planning for the okrug, Evgeny G. Kuzyukov, explained that if land were to be privatized, first, no one would comply, and second, many veterinary matters would be complicated. There would be no way to insure that herds received inoculations on schedule.⁵⁸ The risk of diseases spreading and massive die-off of reindeer is made more real by the need to avoid certain well-known areas of tundra where reindeer died by the thousands during past epizootics.

Land distribution committees had another economic concern. As the law on farmland privatization entitled each newly privatized farm to obtain a 1 billion ruble loan, the committee expected the individual to show an economically viable plan that would enable repayment to the okrug. If an individual were to default on the loan, the okrug would be responsible for repayment to central authorities. Another concern expressed is that privatization of pasture land would create a few rich herders who would charge others for use of their land. Then, there is the serious question of what period of history to return to in determining allocation of land to families or clans. In the pre-revolutionary period, a few rich herders owned the land and allocated use rights to others. However, new routes that developed over the

last 70 years are now well established, and many herders argue that the law should protect this new "traditional" allocation. In addition to these complexities, officials are aware of conflicts and problems created in the Khanty-Mansiisk Okrug where clan lands have been designated. The Head of the Administration for the Yamal District explained that herders are not anxious to rush into separation of clan lands from sovkhos lands.⁵⁹

Another frequent argument of officials against land privatization was that there is no legal basis for it yet. Authorizing legislation has not been worked out at the federal level, and okrug officials need guidelines before moving forward. However, the fact that one proposal has been acted upon and others are under consideration by the raion administration in Yarsale indicates that federal authorizing legislation might not be a serious obstacle if substantive problems were resolved.

In regions to the south and east of the Yamal Peninsula, extensive land use rights have been transferred from state farm use to the oil and gas industry. The Nadym District of the Yamal Nenets Autonomous Okrug (encompassing 11.5 million hectares, larger in size than the whole of the Moscow Oblast) with a high density of gas and oil fields includes the Medvezhye, Yamburg, and Ubelenia fields. Four more will be added soon as well as a dozen gas pipelines. While there are only 5 sovkhoses in the district, their territory covers 5 million hectares -- almost half of the district. When land is transferred from sovkhos use for pasture land to gas field development, the implications are significant. Development of a new structure in the Yamburg field (Khargutinski Dome) displaced 1,000 reindeer herded by only 3 families comprised of 17 people. The effect can be dramatic as

families must either leave herding or relocate on land already intensively used by other herders.

In the Yamalskii Raion, the few individuals who have sought to privatize the lands they use engage primarily in fishing or hunting. Their preliminary proposals have not been regarded by the land resources committee as serious prospects for privatization in 1994. The process of privatization in any case is complicated, requiring multiple approvals of the relevant sovkhos, the district land resources or land reform committee, district veterinary official and, finally, the okrug land distribution committee.

The one case of privatization, portrayed by government officials as unique, may nevertheless set a precedent for others to follow. Notably, a Nenets woman, Anna Nerkagi, was the first person anywhere on the Yamal Peninsula to seek and succeed in obtaining agreement from administrative officials to privatize lands traditionally used for her herd. She received a provisional grant for one year of 11,507 hectares in the Priural district.⁶⁰ composed of three non-adjacent plots which are the winter and summer pastures and breeding grounds used by her husbands' and her own herds. These lands, nestled in the foothills of the polar Urals, are not in the heart of sovkhos pastures where conflict with other herders would be a problem. But more significantly, Nerkagi is not an ordinary herder, but rather a well-known novelist, advocate for native rights, and powerful Nenets figure.⁶¹ Administrators in the land reform office of Salekhard regarded her case as unique, and the head of the land reform committee (not a deputy or lower official) handled negotiations for the okrug. From another source, we learned of Nerkagi's intention to permanently privatize these lands together with lands of her brothers (who are herders) and to capitalize the herding

operation in part by development of a unique tourist base where visitors can see and, in moderate comfort, experience the lifestyle of the Nenets herder. Initial funds to develop this tourist base are to come half from Nerkagi and half from the Okrug office of culture and tourism.

The Baidaratskii sovkhov, from which Nerkagi's land was allotted, owns use rights to almost 3.5 million hectares, three percent of which is to be set aside by the land resources committee for redistribution to private owners for private reindeer herding farms (restricted to use for traditional activities such as reindeer herding, hunting, and fishing).⁶² Although the okrug administration also has made agreements with other sovkhovs for redistribution of part of the sovkhov lands, these have not been on the Yamal Peninsula, where herders, at least in the summer of 1994, were skeptical of plans to divide the land into clan or family parcels.

Economic infrastructure

Since their creation in the 1960s, the sovkhovs have been the organizing mechanism for reindeer herding. They are responsible for allocation of migration routes, production, marketing, distribution of meat, antler, and other products. The sovkhovs have contracted with other state-run enterprises for the provision of supplies (fuel, food, housing, tools, ammunition, etc.). Herding households are dependent on the sovkhov in large measure to buy their reindeer (usually in trade for supplies), pay wages, market their product, and deliver supplies.

Economic difficulties of the transition to market economy in the rest of Russia have combined to make the economic situation of reindeer herding sovkhoses extremely difficult. These include:

- loss of old markets and failure to develop new markets resulting in huge surpluses of reindeer meat,⁶³
- the crisis of nonpayment that has spread to affect income of sovkhoses;
- lack of adequate processing facilities (converted military plants are working to develop small, mobile meat processing plants to address this problem),
- drastic decline over the last 2 years in prices on the international market for "velvet" reindeer antler (*pany*) especially valued in Asia for medicinal purposes, coupled with loss of profits due to a multiplicity of brokers between herders and final markets, and
- a drastic drop in prices for polar fox fur on both the domestic and international markets.

The current crisis of nonpayment has drastically reduced the security of remote settlements and disrupted former economic links. The effects are felt in the tundra among the herders who are far from self-sufficient. Households or brigades provide meat, antler, and skins and receive from outside in exchange (or sometimes as subsidies or transfer payments) bread, flour, sugar, tea, vodka or spirits, canvas for tents, wood for tent poles, fuel, and other necessities. However, in the past, while the sovkhoses provided meat, skins, boots, and fur to other state enterprises and received commodities useful to them, this system of exchange is breaking down.

At the same time, government subsidies from central, oblast or okrug budgets for housing, shipment of fuel and supplies, health care, education, and other services made life in this remote region possible (as do government subsidies in remote northern regions of Alaska, Canada, Greenland, and Scandinavia). The crisis of nonpayment, as it ricochets through the economy, has left regional government coffers without means to pay for essential services. Prior to July 1, 1994, ten percent of oil produced was set aside for the okrug to sell directly, insuring some revenue to the okrug government. When this quota was abolished midyear, the central government provided no financial substitute for the loss in revenue. Nonpayment of the okrug's 30 percent share of oil revenues or even late payment (drastically devaluing the payment) has left the okrug with "almost nothing."⁶⁴

Additionally, as of the end of April 1994, the Russian Government had provided only 5 billion of the 2-3 trillion rubles needed for the "life support system" of the northern territories, that is to send goods and supplies to communities of numerically small indigenous northern peoples.⁶⁵ During 1992-93, the North received 2.3 trillion rubles in credits for movement of supplies, but only 241 billion rubles were repaid. The new head of the Nenets Autonomous Okrug, Yuri Komarovski, suggested in April that the unpaid amount [2 trillion rubles or 1 billion US dollars at the rate of exchange then current-- 2000 rubles to the dollar] be written off and new credits be authorized for the current year.⁶⁶ Lack of funding was hampering delivery of goods which should have left ports before July 15.⁶⁷

Federal funds are used for oil, oil products, sugar, meat, vegetables, canned vegetables, potatoes, medicines, machinery, equipment and other vital necessities for the population. While the Federal fund finances central

supplies and delivery, the territories are responsible for delivery. Funds are transferred in the form of a loan into regional accounts at 1/3 the central bank's rate of interest.

In the face of crisis conditions, Russian oil and gas enterprises have offered sovkhoses the option of becoming subsidiaries. While some, including the Baidaratskii sovkhos and others in the southern part of the okrug, have accepted this option and become subsidiary economic activities of regional gas and oil companies, others have been more cautious.⁶⁸ A similar arrangement was still being debated by Yamalskii sovkhos. The director of the Yarsalinskii sovkhos rejected an offer by Nadymgazprom in July 1994 due to concern not to compromise the sovkhos's land rights. Sovkhoses in the timber areas of Selkup, such as Tarko-sale⁶⁹, have chosen this option. Herding there plays a smaller role in the overall economy of native peoples, and oil and gas development has already spread throughout the district. According to Kuzyukov, the transferred sovkhoses are a burden for the oil and gas enterprises who now provide subsidies instead of the state.

In agreements between a sovkhos and an oil company, the parent oil and gas enterprise does not obtain property rights greater than those possessed formerly by the sovkhos and cannot dispose of land or transfer use rights to individual herders or to industrial purposes without permission of the okrug and raion land use committee. As explained previously, transfers of use rights remain subject to multiple approvals—by the land reform committee, veterinary authority, and in the case of transfer to industrial use, the ecological committee or environmental ministry. Nevertheless, the independent bargaining power of a sovkhos is diminished following reorganization as a subsidiary of a large regional gas company.

IV. The Future:

Combining local and national economic revitalization

What mix of property rights (to reindeer, land, enterprises or infrastructure) will lead to increased efficiency in the Russian economy while at the same time protecting and enhancing the local herding economy? By focusing single-mindedly on privatization of state farms and enterprises without developing the underlying framework of property rights, reformers miss opportunities to strengthen both local and national economies. Similarly, the World Bank and other international lenders are trying to buttress the Russian oil and gas industry without requiring restructuring of property rights in a manner likely to increase long term economic efficiency. Experience elsewhere in the Circumpolar North suggests that restructuring property and political rights to accord indigenous peoples greater control and self-government over lands they have occupied for centuries is not an obstacle to energy and mineral development and can lead to design of industrial projects that provide more sustainable economic and social benefits to the localities in which they occur and to the larger society.⁷⁰

Not unlike the situation in Alaska in the early 1970s following the discovery of huge oil deposits at Prudhoe Bay, the government of Russia is pressing for rapid development of nonrenewable resources and, at the same time, aims to protect the economy and culture of the indigenous people residing there. In the United States the conflict between rapid development and protection of indigenous rights was resolved in 1971 with a sizable transfer of land (almost 44 million acres, 11.6 percent of Alaska lands) and

money (\$962.5 million) from the federal government (public property) into newly created Alaska Native regional and local corporations. The shares of these corporations are held by indigenous peoples originally from the locality of the corporation (although not necessarily still living there).

In Canada, when the desire for rapid development of a gas pipeline from the Beaufort Sea through the Mackenzie Delta south conflicted with aboriginal claims to the land, a massive study resulted in a 10 year moratorium on pipeline construction. The conflict eventually led to lengthy negotiations among federal and provincial authorities and native organizations. This resulted in acknowledgment of native title to vast areas of the Canadian North, sizable financial payments, and most significantly, to recognition of new political rights of indigenous self-government.⁷¹

If we look to the Inupiat of the North Slope Borough of Alaska, we find a culture still linked to traditional subsistence cycles (especially to the whaling tradition) and to values and behavioral norms that have allowed communities to persist and adapt. Taking advantage of the discovery of vast quantities of oil at Prudhoe Bay, Inupiat organized (and fought hard) to form a new borough (subdivision of the state government somewhat akin to a county) in order to take advantage of rights of boroughs to impose property taxes and allocate tax revenue for the benefit of the predominantly Inupiat population of the borough.⁷² While many differences may be noted between the conditions and context of Nenets on Yamal today and Inupiat of the North Slope prior to 1970, there are enough parallels to suggest that Nenets also are organizing and pressing for political and property rights. They are seeking an increased role in decision making both to protect remaining pastureland and benefit from extractive industry on the peninsula.

Indigenous management of land use

In order to minimize their impact on grazing land, the gas, railroad, and pipeline construction industries must improve their methods of gas field development, construction, and operation. However, even with new limits on industrial development, herd size will have to be reduced in order to restore grazing lands. The trend on the peninsula is toward increased herd size as individual or family ownership of reindeer rises, despite the anticipated decline in sovkhos deer (perhaps even to the point where all herds will be owned privately). Given the poor condition of pasture land, a key issue is the right to regulate herd numbers or restrict pasture use. Understandably, state management officials, sovkhos directors, and conservationists may resist efforts to increase indigenous control and management of pasture land, arguing that indigenous people no longer abide by traditional norms that would protect the land from overgrazing.

Tundra herders of Yamal, having survived the onslaught of assimilationist policies from the 1930s to the present, retain some elements of traditional management. While the Soviet management system imposed on Nenets is hierarchical (top-down decision-making), competent herders hold leadership roles among the tundra brigades. Herders continue to transmit traditional knowledge necessary for reindeer breeding and tundra life to new generations. Nenets herders are among the first to note and be directly affected by declining quality of pasture lands. As disequilibrium between herd size and available pasture land is beginning to be reflected in herd health and the flow of daily life, behavioral norms may lead herders to reduce their herds despite the lack of demand for reindeer meat and skins. Or they may

wait until herds decline or die off from malnutrition and disease. In either case, decisions regarding land management are more likely to be implemented if the user group has the responsibility for decision making.

Krupnik, like others, noted that the Arctic is characterized by frequent, profound, and well documented climatic and environmental change.⁷³ Arctic peoples have a long history of successful adaptation to change. Indigenous Arctic peoples recognize the cycles in nature -- both short and long -- and have witnessed large fluctuations in animal populations, temperature, the length of day and night. Living with extreme change is normal to indigenous Arctic peoples, a fact of life to which Arctic peoples adjust rather than resist or attempt to control. The impulse to try to regulate herd size with restrictions imposed by outside authorities may not be the only or even a good solution to the overgrazing problem. Allowing the indigenous peoples to devise their own systems of supervision is likely to be more successful.

Alternatively, government agencies might join forces with Native users to form comanagement arrangements in which government agencies and native user groups share power. Comanagement systems are now integral parts of comprehensive claims settlement agreements in the Canadian Arctic. In both Canada and Alaska, comanagement arrangements have helped to resolve conflicts between government agencies and user groups over management of fish, wildlife, and land.⁷⁴

At a minimum, policies should be adopted for Yamal that will reduce industry impacts on grazing land, allow indigenous self-management, and facilitate meetings and cooperation among herders, scientists, and range

managers. An exchange of knowledge between herders, scientists, and managers is more likely to lead to changed behavior on the part of herders than are rules handed down from outside authorities. Activities of either foreign oil companies or administrators suggesting that compensation or land allocation might be made on the basis of number of reindeer owned should be curbed so as not to exacerbate the overgrazing problem.

Options for restructuring state farms

With regard to the specific question of the future existence and structure of the state farms. The three basic options (or variations of them) are:

(1) **reconfiguration as cooperatives with herder families as members succeeding to rights and responsibilities of the sovkhov,**

(2) **elimination of sovkhoves and transfer of their property rights, including rights to use the land for traditional activities, to private individuals or families, and**

(3) **restructuring sovkhoves as subsidiaries of the existing Russian oil and gas enterprises.**

The first option, reorganization of the productive arrangements under herder cooperatives, offers the greatest opportunity to continue traditional use, regulate herd size, and protect traditional land and culture. This option would eliminate the state as a dominant figure in the structure. Members of the cooperatives would have increased ownership rights rather than status as workers only. Membership might be limited to tundra families with

restrictions on disposition rights designed to retain pasture land to support continued herding, hunting, fishing, and gathering.⁷⁵ This approach would further self-determination by Nenets and Khanty of the peninsula.

Enormous problems of financial solvency and ability of the successor entities to survive in times of the shift to a market economy make a transition to herder cooperatives precarious. And for this reason, the option of protection under the umbrella of a "wealthy" gas company has been seductive. Cooperative entities, once formed, however, might become successors not only to the land use rights of the sovkhos but proprietary, exclusionary, and limited disposition rights as well. How extensive the rights might be would depend in large measure on the authorizing legislation of the Russian Federation. With an increased bundle of rights over land, members of a cooperative would be in a strong position to negotiate with oil and gas companies over the conditions of industrial use and to collect rents and royalties from industrial use of the land. Such rents or royalties could be used by First Nation cooperatives to capitalize improved meat storage and processing, develop broader national and international markets, and provide for the needs of their members. However, a favorable arrangement regarding disposition of rights to land would be critical to the success of this option.

Space does not permit a full evaluation of the pros and cons of cooperative versus corporate structures of ownership. Some form of corporation with shareholders limited to members of the First Nations who live on the relevant lands may be as successful a structure as the cooperative model. The Inuvialuit Final Agreement⁷⁶ (resulting from First Nation land claims in the western Canadian Arctic or Mackenzie Delta region) and the more recent agreement for Nunavut (agreements negotiated, not legislated,

between the Canadian government and organizations representing the Inuvialuit and Inuit of the Canadian Arctic) provide more relevant and useful models than the legislated Alaska Native Claims Settlement Act that created for-profit Native owned corporations in Canada.

Creation of for-profit (as opposed to non-profit) corporations would mark a drastic change in the incentive structure and value system of Nenets tundra society. In its pre-Soviet form, Nenets society was highly stratified. Krupnik describes a society with people of high, middle and low wealth, with wealth enumerated in herd size. Nevertheless, the purpose of that accumulation of capital on the hoof was and is quite different from accumulation of capital in a for-profit corporation. In the former, the goal is to sustain the family and community, and to reproduce and continue subsistence. Even production for commercial sale outside native communities is linked to sustaining the family and community. In earlier times among some indigenous cultures of Alaska, the purpose of accumulation of wealth by individuals was for distribution to show rank and power within the community. Under the corporate system now in place in Alaska, incentives of many Alaska Natives have changed to fit the new institutions created by the Alaska Native Claims Settlement Act. Accumulated wealth is no longer spread or redistributed widely within the community. In the case of a for-profit corporation, the purpose of capital accumulation is the growth and continuation of the corporation, and profits (in the form of dividends) pass to individuals rather than the group. Leaders in these new corporate structures acquire new roles that reshape their goals and tend to create new intra-community conflicts.

Unquestionably, the structure of increased indigenous rights to land and resources will affect the ability of indigenous people to continue their traditional occupations and move to a more diversified economy. While these are crucial issues to be resolved in restructuring property rights, they are issues best resolved by the indigenous population.

The second option, division and privatization into individual or family farms, is least likely. Some marginal areas may be separated from the sovkhos and become financially stable private farms, tourist bases, or other enterprises, but the central migratory routes and pastures cannot be divided into individual or family plots while still maintaining the large scale herding practiced by Nenets today. It would be enormously difficult to divide all lands among individuals or households due to the complexity of pasture allocation and overlapping migration routes. This option is also historically unlikely. Traditional activities of the small numbered nationalities (herding, hunting, and trapping) have been accorded special protections in the law prior to and throughout the Soviet period. Although implementation and enforcement of such laws has been weak, abandoning these protections is not popular, nor is allocation of individual as opposed to communal rights.

The third option in which sovkhoses become subsidiaries of oil and gas enterprises, in the short run, would allow the farms to survive financially and enhance prospects for processing and marketing of reindeer products. For these reasons, this option is fast becoming a reality in the okrug. Under it, however, the voice of the sovkhos will be dominated by the parent oil/gas company's interests rather than herders' interests. Long term protection of grazing land and the reindeer herding lifestyle would be uncertain. Following privatization of the gas companies, the herders' interests may be

further diminished as private individuals and entities would control almost half the shares, diluting the voice of the central government which (though not benign) at least has a history of policies protective of the interests of numerically small nationalities. If the subsidiary reindeer farms are not independently productive (or even profitable by capitalist standards), will oil and gas enterprises continue to subsidize them from profits of other business activities? As Russia's monopolistic regional gas enterprises are forced to become more efficient in order to compete in the international market, will their incentives and policies change to the detriment of the reindeer herding subsidiaries? Do the written agreements commit the parent company to continue support for the herding economy?

Crisis manipulation

In large part, the failure to reform the huge state oil and gas enterprises plays a central role in both the cause of the current economic crisis and options to restructure the state reindeer farms. Moe and Kryukov (Norwegian and Russian economists) explain:

A very considerable portion of crude oil deliveries takes place without payment. As a result, more than one-half of the volume of mutual arrears of Russian enterprises is comprised by debts owed to the fuels and energy complex.

These problems were compounded through 1993. In the course of the first nine months, debt to the whole fuel and energy sector increased 3.5 times. . . . Indeed, it has been calculated that 30 percent of the nonpayments in the fuel and energy sector are between enterprises *within* the sector. . . . The government has postponed repayment of

bridging loans to oil producers (to support energy purchases by enterprises) and continues to waive payment of a share of hard currency revenues from the oil and gas industries in the treasury.

[citations omitted]⁷⁷

Moe and Kryukov lay the blame not only on the failure of Russian oil and gas enterprises to institute financial reform but also their disregard for savings and rational use of materials, energy, and labor resources. The fact that the oil and gas industries continue to operate as monopolistic enterprises works against increased efficiency. Moe and Kryukov conclude that the oil industry is engaging in "crisis maximization"--using crisis to extract more from government--in tax reductions and export credits.⁷⁸

These unruly industry giants are also using the self-created crisis to "save the sovkhoses," but their disregard for the environment and the protection of the herding culture belies any altruistic intention. By manipulating the crisis, the oil and gas industry that caused forced relocation of indigenous camps and people throughout northwest Siberia is now moving to place the traditional economy even more securely under its control. As Moe and Kryukov concluded, "Posed in the bluntest terms, one must question whether real improvement of industry performance can be expected until the government has nothing more to give."⁷⁹ What these critics failed to discuss was the willingness of international lenders to step in to assist the, as yet unreformed, industry perhaps further delaying essential reforms.

The role of international financial institutions

The World Bank's approach to improving the economy of Russia has focused primarily on revitalization of the Russian oil and gas industry. Its initial loans targeted reconfiguration of old fields to enhance recovery of oil and gas. By the spring and summer of 1995, the Bank was considering a loan to Yuganskneftegaz for a joint venture project to develop a new oil field (Priobsk) in the Khanty-Mansiisk Okrug. No effort has been made to approach the problem of revitalization of the Russian economy from a more local or even regional perspective. The health of small scale but widespread indigenous economies dependent on renewable resources has been considered only insofar as Bank policy requires studies of the social, cultural, and environmental impacts of proposed projects on local, and especially indigenous, peoples. Thus, protection of the reindeer herding, fishing, and hunting economy of Siberia's indigenous population may be mistakenly viewed as a nuisance to movement forward with revitalization of the dominant industry--oil and gas. If land rights were accorded to indigenous people, they could become partners in economic revitalization of their region. They would then have a stake in development of oil and gas, as well as an interest in assuring environmental safeguards which would increase efficient recovery of oil and gas reserves.

The World Bank aims to enable the Russian oil and gas industry to improve oil recovery, reduce spills, repair broken pipelines, and reduce waste through improved environmental technology. But without restructuring property rights, the population with the greatest interest in protection of the environment remains powerless to protect its interests against monopolistic and unreformed oil and gas enterprises. With an increased bundle of property rights and legal mechanisms to enforce them, indigenous peoples

would be empowered to influence oil and gas company behavior thus enhancing environmental protection. In all probability, this would bring pressure to bear on monopolistic enterprises to employ more efficient extraction and delivery technologies. Assisting in and insisting upon the restructuring of property rights would be a more effective tool for revitalizing the Russian oil and gas industry than simply lending billions of dollars to monopolistic actors.

The indigenous rights movement in Russia

As in Canada and Alaska, indigenous leaders in Russia, beginning in 1989, created a national organization to lobby for self-determination, protection of traditional activities, and rights to land, water, and resources. In March 1990, at the First Congress of the Association of Numerically Small Peoples of the North, indigenous leaders called for return to tribal councils and councils of elders as well as formation of ethnic districts and village councils, priority for traditional use of natural resources in areas settled by indigenous peoples, and ratification of the International Labor Organization Convention concerning Indigenous and Tribal Peoples in Independent Countries (ILO Convention No. 169 adopted June 1989). In addition to the national Association, indigenous peoples formed regional associations throughout the Russian North. Approval by the relevant regional association is legally required to privatize facilities or enterprises that are part of the traditional economic complex of the peoples of the north.⁸⁰

In 1989, Yeremy Aipin, a Khanty writer from Northwest Siberia, urged creation of "sanctuaries, reservations, and autonomous territories" where homelands of Khanty, Mansi, and Nenets would be protected from intrusions

and pollution of the oilers.⁸¹ The same year, indigenous peoples established "Yamal for Our Descendants" to oppose the ecological destruction of the Yamal Peninsula. By 1995, proposals by representatives of regional indigenous groups included the following:

- guarantees of indigenous peoples' rights to ownership of land, resources, water, plants and animals found on traditional resource use territories,
- a law on compensation to indigenous peoples that would require payment of 12 percent of the hard currency generated by industrial development on Northern Territories in payment for "decades of predatory plundering" of the environment,
- creation of a Ministry of Northern Territories and Affairs for Indigenous Peoples to be headed and predominantly staffed by representatives of the indigenous peoples of the North, and
- tax exemptions for traditional indigenous economic activities.⁸²

Article 69 of the Constitution of the Russian Federation "guarantees the rights of numerically small indigenous peoples in accordance with the generally accepted principles and standards of international law and international treaties of the Russian Federation." The next step in clarifying and elaborating these rights would be for the state Duma to adopt a law on the legal status of northern indigenous peoples in accord with such norms. Another positive step would be for the Federation government to reaffirm the Eltsin edict of April 22, 1992, by adopting and implementing regulations that would prevent sale or transfer of traditional lands without consent of the relevant native user groups.

Comparisons with North America

Control of the land and increased political rights have not been secured by other aboriginal peoples without long and hard struggles, a political revival, active leadership of indigenous peoples themselves, and a complex of other conditions favorable to recognition of indigenous rights. In the case of Alaska, indigenous peoples had the advantage of strong legal precedents, treaties, and interpretations of the United States Constitution. These provided a sound legal basis for aboriginal claims to a large part of the real estate of Alaska. Additionally, a combination of favorable external factors aided achievement of the Alaska Native agenda in the 1970s: the Prudhoe Bay oil strike, the rise of the environmental movement in the U.S., and the Presidency of Richard Nixon who was sympathetic to indigenous peoples. In contrast, the weak economy of Russia, the lack of a clear foundation in Russian law for native land claims, and the lack of strong, unified aboriginal leadership work against recognition of native rights to land and self-government in the near future.

Nevertheless, international investors and lending agencies could advance reform of the Russian economy by insisting upon adherence to international principles of indigenous rights, local self-government, and sustainable development. Observation of foreign oil companies suggests that while corporations are not altruistic, they need not be an obstacle to enhanced rights of indigenous peoples. Foreign industries need a secure political climate in which to operate and are often as willing to pay costs for using land and extracting resources to private individuals, cooperatives, or corporations owned by natives as, for example, to government entities or non-native owners. Their experience elsewhere in the world has led the larger

companies to adjust to, and even anticipate, the interests of the native population. Foreign oil companies cannot be expected to fight the battle for either land rights or political power for indigenous people, but they will not want to be exposed in the international or national press as obstacles to the development of such rights.

Following the example of the creation of the North Slope Borough in Alaska (a state chartered municipal type government), new indigenous political or administrative entities could be allowed to tax property used by industry in order to support services to the small settlements and nomadic population. At present, even limited funds designated for the improvement of services or for basic support of indigenous peoples and small settlements seldom reach their goals but are spent to benefit newcomers or simply disappear in the hands of corrupt officials.

It is not my purpose nor is it in keeping with principles of indigenous self-governance to make more specific recommendations for the design of property rights systems appropriate to conditions such as those on the Yamal Peninsula. Hopefully, the delineation of four elements of property rights—proprietary, exclusionary, disposition, and use rights—employed in this paper will help reformers to understand the existing property rights system in Russia, especially with regard to rights related to land and resources in the far North, and to think clearly about how to restructure these rights to achieve multiple policy goals that serve both central interests in economic development and local interests in "traditional" economic activities and cultural continuity.

V. Conclusion

As others have pointed out, achievement of a successful shift to a market economy in Russia is dependent in large part on the creation and design of political and legal institutions that support and regulate that shift. In regions of the far North, economic reform needs to be supported by a clear elaboration of rights to property as well as political rights of indigenous peoples. The transformation of property rights systems in Russia is spreading to the farthest and most remote regions of the country with profound effects on the culture, economy, and environment of those regions. In examining changes in rights to three types of property on the Yamal Peninsula in Northwestern Siberia, this paper illustrates the linkages between issues of economic reform, equity, and sustainability.

Restructuring property rights to strengthen the local economy and cultures of indigenous peoples of the Russian North such as those of Nenets and Khanty reindeer herders of Yamal is likely simultaneously to facilitate Russian and international interests in sound economic development of energy resources. Those involved in delivery of aid to and reform of the economy of Russia should focus on the design of equitable political and legal institutions that will sustain the indigenous economies that evolved and persisted over centuries. These economies could survive well beyond the life of the oil and gas fields, which is reason enough to assist rather than undermine them. In addition, restructuring property rights (and incentives) to enable indigenous peoples to share directly in the benefits of industrial development in their regions will facilitate such development. In Canada and the United States, according significant property and political rights to indigenous peoples has not only strengthened local economies, but also

facilitated cooperation between indigenous groups and outside industry in development of non-renewable resources. While engineers and technicians work to find solutions to the technical problems of transporting gas from Yamal south, social scientists and others should seek ways to transport the economy of the people of Yamal equitably and sustainably into the future.

¹ The author conducted field work in the summer of 1994 in the Yamal-Nenets Autonomous Okrug with the full collaboration and participation of Dr. Alexei Roginko of the Institute for World Economy and International Relations, Russian Academy of Sciences, Moscow. This and earlier field trips to Northwest Siberia in 1992 and 1993 could not have taken place without the facilitation and participation of Dr. Andre V. Golovnev of the Institute of History and Archeology, Russian Academy of Sciences, Ekaterinburg. Funding for this research was provided in part by the International Research and Exchanges Board (IREX), the John D. and Catherine T. MacArthur Foundation, and the International Northern Sea Route Programme of the Fridtjof Nansen Foundation. Lydia V. Kiripovoye, now Assistant Director, Ethnographic Museum, Salekhard, provided translation from Nenets to Russian for research conducted in the summer of 1992 and offered useful insights on Nenets life. I wish to especially thank the people of the Yamal Peninsula and Ob River Delta whose hospitality and insights made this research both possible and enjoyable.

² About one third of explored gas reserves in the entire C.I.S. are located on the Yamal Peninsula. Reserves of the huge Bovanenkova and 19 other fields on the Peninsula are reported to hold about 16.6 trillion cu m (586 TCF) of gas ["Russia pins energy hopes on western Siberia gas," *Oil and Gas Journal*, Sept.

7, 1992, pp. 17-20], or 9650 billion cubic meters according to 1988 figures reported in Leslie Dienes, Istvan Dobozi and Marian Radetski, *Energy and Economic Reform in the Former Soviet Union*, (New York, St. Martin's Press, 1994), p. 56 Table 2.6. Investment costs, especially for construction of pipelines, under conditions "that have no analogue in the world" are high and uncertain. Dienes et al., p. 61 and note 18 at 223. Gazprom hopes to raise a good part of the projected \$50 billion cost to develop Yamal by sale of 9 percent of its stock in the West. *East West Business & Trade* 22, December 21, 1994, p. 3,4.

³ See Gail Osherenko, "Indigenous Political and Property Rights and Economic/Environmental Reform in Northwest Siberia," *Post -Soviet Geography* (forthcoming).

⁴ Michael McFaul, "State Power, Institutional Change, and the Politics of Privatization in Russia," *World Politics* 47 (January 1995), pp. 210-43, at 211.

⁵ McFaul, p. 211.

⁶ Igor I. Krupnik, *Arctic Adaptations : Native Whalers and Reindeer Herders of Northern Eurasia*, (Hanover, NH: University Press of New England, 1993), pp. 160-184

⁷ Krupnik. pp. 173, 174.

⁸ In 1994, of the 903 nomadic households (4,609 individuals) in the Yamal District, 623 households (3,408 individuals) worked for the state department of agriculture (within the sovkhos system), 255 households (1,053 individuals) were headed by non-working pensioners, and only 25 families (148 individuals) operated privately (were not connected to any state agency).

⁹ L.V. Khomich, "Yamalo-Nenetskii Avtonomnyi Okrug (K 50-letiyu obrazovaniya)," *Sovetskaya Etnografiya*, 6, 1980, pp. 72, 73.

¹⁰ Oil and gas accounted for 98 percent of industrial output of the okrug, and agriculture only 0.7 percent according to N.A. Lukiyanova, First Deputy of Head of administration of Yamal-Nenets Okrug. Speech given at a meeting of the Okrug State Duma reported in *Krasniy Sever*, 49, 50, June 1994, p. 9.

¹¹ Nadymgazprom is one of 25 natural gas production and transportation associations comprising RAO Gazprom the Russian joint stock company that controls the industry. Smaller geological exploration firms also operate on the peninsula.

¹² Amoco and the Russian joint stock company, RAO Gazprom, signed a Cooperation Agreement on July 30, 1992, that establishes Amoco's right to participate in the development of oil fields at Novy Port and Rostovtsev, and more significantly, in the gas condensate (deeper zones) of the Bovanenkovo gas field. Nadymgazprom is to be accorded exclusive development rights.

¹³ The sovkhoses were on the verge of financial breakdown with a debt of 12 billion rubles by June 1994.

¹⁴ F. Podkorytov, *Olenevodstvo: real'nost i perspektivy* [Reindeer herding: reality and perspectives], "*Krasnyi Sever*, 41, 42, May 1994, p. 8.

¹⁵ Khomich, p. 68.

¹⁶ Nikolai Vakhtin, *Native Peoples of the Russian Far North* (London: Minority Rights Group International, 1992), report no. 5. Vakhtin provides an excellent overview of the history of indigenous peoples of the Russian North relevant to understanding the issues today. For accounts in English of the formation and functioning of the Committee of the North, see James Forsyth, *A History of the Peoples of Siberia: Russia's North Asian Colony 1581-1990* (Cambridge, UK: Cambridge University Press 1992), pp. 244, 245, and Yuri

Slezkine, *Arctic Mirrors: Russia and the Small Peoples of the North* (Ithaca, New York, Cornell, 1994), pp. 150-152.

¹⁷ Yuri Slezkine, *Arctic Mirrors: Russia and the Small Peoples of the North* (Ithaca, New York: Cornell, 1994), p. 193.

¹⁸ The northern part of Yamal had no collectives as late as 1936. Forsyth, p. 308.

¹⁹ Khomich, p. 68.

²⁰ Slezkine, pp. 200-203.

²¹ Esiko Laptander, quoted in Andre V. Golovnev, "Leadership: Traditions and Their Evolution" (unpublished paper prepared for project "Tracing Cultural Change in Northwest Siberia" based at the Institute of Arctic Studies, Dartmouth College, April 1994).

²² Forsyth, p. 296.

²³ Slezkine, p. 207.

²⁴ The state owned economic enterprises ran roughshod over native interests with little control by distant government. In the Beryozov and Surgut districts to the south of the Yamal Peninsula, fishing and logging enterprises made use of the system of seasonal migration among Khanty using their winter houses to house workers in summer and summer tents in winter--one solution to the shortage of housing needed for almost 33,000 exiles brought to the region that surely suited neither the exiles nor the Khanty (Slezkine at 268). Reindeer numbers declined dramatically in the face of poaching by newcomers, taking of land and fishing grounds for commercial development, and other disruptions.

²⁵ Krupnik noted that the influx of outsiders to Yamal had reached almost 1,500 in a population of 4,885 in 1934. Facsimile letter to Osherenko, February 24, 1995, p. 3.

²⁶ Outside of Mys Kamenny, the base town for gas and oil exploration on Yamal, 75 percent of the raion population are indigenous.

²⁷ Slezkine at 274 provides Russian sources for this conclusion.

²⁸ Slezkine at 272-274.

²⁹ Krupnik, communication to Osherenko, 24 April 1995, citing P.N. Vostriakov and M.M. Brodnev, *Olenevodstvo Yamala, (Sverdlovsk, 1964)*, p. 25.

³⁰ Igor Krupnik, Arctic Center, Smithsonian Institution, is now tracing the evolution of this consolidation and transformation process on Yamal. The author has benefited greatly from discussions with him.

³¹ Interview with Evgenii G. Kuzyukov, Salekhard, 5 July 1995.

³² Interview with Dimitry Khorolya, Director of Yarsalinskii Sovkhoz, Yarsale, July 1994. Khorolya is Nenets.

³³ Golovnev, "Leadership: Traditions and Their Evolution," (1994), p. 24.

³⁴ See Margaret McKean and Elinor Ostrom, "Common-property Regimes in the Forest: Just a Relic from the Past?" *Unasylva* 46 (1995) pp. 3-15 for a list of conditions associated with successful common property regimes synthesized from case studies; Elinor Ostrom, *Governing the commons: The evolution of institutions for collective action* (Cambridge, UK, Cambridge University Press, 1990), pp. 88-101; Margaret A. McKean, "Success on the commons: A comparative examination of institutions for common property resource management," *Journal of Theoretical Politics*, 4, 3, 1992, pp. 247-282.

³⁵ McKean and Ostrom, 1995.

³⁶ Oran R. Young, *Theories of Property: Structures of Property Rights as Social Institutions* (unpublished manuscript), Chapter I, pp. 7,8.

³⁷ October 27, 1993 Decree "On the Regulation of Land Relations and the Development of Agrarian Reform in Russia." See description of this decree in Stephen K. Wegren, "Yel'tsin's Decree on Land Relations: Implications for Agrarian Reform," *Post-Soviet Geography*, 35, 3, 1994, pp. 168-171. Also see Wegren, "Rural Reform and Political Culture in Russia," *Europe-Asia Studies*, 46, 2, 1994, p. 218 and note 12.

³⁸ Increased slaughter to supply meat during the Second World War reduced herd numbers to 225,000 by 1 January 1945. Khomich, p. 72.

³⁹ Natalia Posaeva, "Interview with Vladimir Kalyakin, Director of Institute of Nature Protection and Security of Nature Using Fund," *Zelenyi Mir*, 5, 1993, p. 5.

⁴⁰ F. Podkorytov, "Olenevodstvo: real'nost i perspektivy," *Krasnyi Sever*, 41-42, May 1994, p. 8.

⁴¹ We were unable to obtain figures for Panaevskii (formerly Rossiya) sovkhov headquartered in Panaevsk which lies between the Yarsalinskii and Baidaratskii sovkhovy. The railroad corridor from Labytnangi north has already destroyed many hectares of pasture land through this sovkhov.

⁴² In addition to these Yamalskii Raion herds, the Baidaratskii Sovkhov in the Priuralskii Raion recorded an average of 126.2 reindeer per household held privately by 153 households at the beginning of 1994 or 19,308 reindeer in private ownership.

⁴³ The percent of deer in private hands was declining during that decade as were overall herd numbers. In viewing the higher total number of deer in the okrug, in the 1970s, one must remember that pasture land was more

plentiful as well. From the early to the late 1970s, the percentage of reindeer in the okrug held privately declined slightly from 37% in 1972 to 35% in 1979 according to official figures, some copies of which are located in the Ethnographic Museum in Yarsale.

reindeer	1972	1979
private	149,804	123,469
all	409,875	348,356

The aggregate figures do not show the substantial differences in relative size of private to sovkhos herds between the Yamal tundra where pasturing reindeer is the dominant and almost exclusive activity and the transition zones or taiga where herds are smaller, migrate in smaller territory, and where oil and gas development by the 1970s had already damaged extensive areas of pasture land. In 1972, on Yamal, 39.2 percent of reindeer or 53,318 were held privately in the Yamalskiy sovkhos, and 48.4 percent or 24,461 in the Priuralskii sovkhos. Both herd size and number of private deer were also high in the Tazovskii sovkhos on the east side of Ob Bay with 45,580 head held privately in 1972 or 44.4 percent.

⁴⁴ Interview with Evgeny G. Kuzyukov, Deputy Head, Committee on Land Resources and Land Planning, Salekhard, 5 July 1995, and *Krasnyi Sever*, Nos. 35, 36, 5 July 1994. Various articles in *Zelenyi Mir* report 12-15 percent of pastureland has been lost in the last 15-30 years. The Okrug lost 594,699 hectares of pasture in the early phases of development on the Yamal Peninsula during construction of the north-south railway and related gas and oil facilities. Nikolai Vakhtin, *Native Peoples of the Russian Far North* (London, Minority Rights Group report no. 5, 1992), p. 24. For a summary of available studies on habitat destruction and overgrazing in northwest Siberia,

including the Yamal Peninsula, see Gregory E. Vilchek and Olga Yu. Bykova, "The Origin of Regional Ecological Problems within the Northern Tyumen Oblast, Russia," *Arctic and Alpine Research* 24:2, 1992, pp. 99-107. Also see G. Vilchek, editor, ^{West Siberian North:} *Environmental Disturbance and Management in Northwest Siberia*, Moscow, ^{Orbis Independent Research Center, 1992} ~~1997~~. ~~STILL NEED TO DOUBLE CHECK THIS CITE~~

45 See Alexander Pika and Boris Prokhorov, "Soviet Union: The Big Problems of Small Ethnic Groups," *IWGIA Newsletter* 57 (1989), pp. 123-135, and Boris Prokhorov, "USSR: How to Save Yamal," *IWGIA Newsletter* 58 (August 1989), pp. 113-128, F. Sizy "The Price of Yamal," *Ogonyok* 46 (November 1988), pp. 20,21.

46 See Piers Vitebsky, "Gas, environmentalism and native anxieties in the Soviet Arctic: the case of Yamal Peninsula," *Polar Record* 26: 156 (1990), pp. 19-26.

47 Bruce Forbes, lecture reporting on his summer 1993 field research on the Yamal Peninsula, Army Cold Regions Research and Engineering Laboratory (CRREL) , Hanover, NH, spring 1994.

48 See V.P. Evladov, *Po tundram Yamala k belomu ostrovu: Ekspeditsiya na Krainyi Sever poluostrova Yamal v 1928--1929 gg.* (Tyumen, 1992).

49 Interview with Istomin, 5 July 1994.

50 Interview, Salekhard, 5 July 1994.

51 Official figures obtained from the land reform office in Aksarka.

52 Interview with Lydia V. Kirupova and Elena G. Susoi, Salekhard, 3 July 1994.

53 Constitution of the Russian Federation, Article 72.

54 Gail Fondahl "The First Nations of the Russian North: Problems and Prospects," *Post-Soviet Geography* (forthcoming 1995), paper prepared for

1995 Meeting of Association of American Geographers, Shabad Routtable: The Russian North In Transition, Chicago, 16 March 1995).

⁵⁵ Kuzyukov interview.

⁵⁶ Kuzyukov interview. The situation and laws are now changing and provide for some compensation to the sovkhos as the former holder of land use rights. According to Istomin (interview, July 5, 1995), the Yamalskii sovkhos has made an agreement for the Tambeiskaya field that allows pilot production of gas condensate with 30 percent of the revenues to come to the sovkhos.

⁵⁷ Of the 40% share of revenue going to the Russian Federation in Moscow, half is returned to Tyumen, the Oblast capital. The formula for revenue sharing is determined by the Russian Federation Law on the Subsurface. Interview with N.A. Lukyanova.

⁵⁸ Interview with Evgeny Giorgeovich Kuzyukov, Salekhard, 5 July 1994.

⁵⁹ Interview with Victor G. Tolstov, Head of Administration of Yamal District, Yarsale, 11 July 1994. One group composed of 11 brigades from the Panaevskii sovkhos sought to have an area designated as their clan lands for fur hunting and fishing, but the administration had not granted their request.

⁶⁰ Nerkagi requested permanent privatization of a larger portion of land based on a formula of 100 hectares per deer. Scientific norms for the number of hectares needed for pasture are set at 80-100 hectares per reindeer in the Priuralskii Raion. [Interview with Galina K. Arkhipova, Head of Committee on Land Resources and Land Reform, Priuralskii Raion, Aksarka, 8 July 1994.] Fewer hectares results in poor health of reindeer, the current state of affairs.

⁶¹ The video film *Khadampae* by A.V. Golovnev featured her. Slezkine (pp. 369-371) discussed one of her short stories, "Aniko from the Nogo Clan".

Krasnyi Sever published parts of her novels and stories, and a documentary about her life and work was shown on national television stations in Russia --viewed by the author in summer of 1993 in Tobolsk.

⁶² Under the Agreement between the sovkhos and administration, signed by Yamkin, Head of Administration of Priuralskii Raion on May 16, 1994, Number 125, the committee will set aside 107,032 hectares for future privatization.

⁶³ Although reindeer meat is high in protein, the high cost of transportation and processing in remote regions makes it non-competitive in today's Russian market. Non-native consumers appear to prefer other meat over reindeer sausage available in food stores in Salekhard (personal observation, July 1994).

⁶⁴ Interview with N. A. Lukiyanova, Salekhard, 1 July 1994.

⁶⁵ Deputy Prime Minister Sergei Shahkrai is personally committed to working out new forms of credits for the Northern region (possibly a revolving fund). *Nezavisimaya Gazeta*, 30 April 1994 article by Alla Barahova.

⁶⁶ *Segodnya*, 30 April 1994 by Elena Tregybova

⁶⁷ *Rossiiskaya Gazeta*, 9 June 1994, p. 3. Ob Bay usually becomes passable about mid July. Shahkrai, who headed a special government commission created to deal with the crisis, explained the chain of events leading to the current crisis in an interview. Transport agencies were devoid of funds since the 1980s though they had capital assets. So the state made loans available with privileged credits for delivery of goods to the North. In 1992-93, the supply organizations received compensation from the state budget for half the transportation costs and half the interest rates, but in September 1993 this system was abolished because the interest rate of the central bank was

increased up to 200% yearly. Because of the high interest rates, the state support of the supply enterprises became more than the amount of credits.

⁶⁸ Kuzyukov interview.

⁶⁹ Tarko-Sale is a forested area poorly adapted for large herds due to lack of fresh water, lots of mosquitoes, and little wind in summer. Families, primarily Selkup, own only 10-20 deer (owning 50 is unusual). Kuzyukov interview.

⁷⁰ See Norman A. Chance and Elena N. Andreeva, "Sustainability, Equity, and Natural Resource Development in Northwest Siberia and Arctic Alaska," *Human Ecology* 23:2 (June, 1995), a comparative study showing how sharing of wealth from oil and gas development has brought substantial benefits to northern native people.

⁷¹ For a discussion of the effects of transferring large areas of land (including some subsurface rights) and government owned businesses to native entities in the Canadian Arctic and Alaska, see "Private initiatives: Arctic problem solving," in Gail Osherenko and Oran R. Young, *The Age of the Arctic: Hot Conflicts and Cold Realities* (Cambridge, UK: Cambridge University Press, 1989), pp. 186-195.

⁷² See Chance and Andreeva.

⁷³ Krupnik, chapter 4, pp. 128-159.

⁷⁴ See Gail Osherenko, "Can comanagement save Arctic wildlife?" *Environment* 30 (6), 1988, pp. 6-13, 29-33.

⁷⁵ One of the most difficult issues to resolve is the relative rights of indigenous peoples who have settled in the villages in contrast to those who continue to derive their livelihood from herding. Arguably, all indigenous

residents should share in increased rights to historic homelands and to the economic rent derived from lands transferred to industry.

⁷⁶*The Western Arctic Claim: The Inuvialuit Final Agreement* (Ottawa: Department of Indian Affairs and Northern Development, 1985); Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada (Ottawa, Dept. of Indian and Northern Affairs, 1993). Art summary of the Nunavut agreement signed May 25, 1993, appears in *Northern Perspectives* 21 (fall 1993), p. 2 (journal published by the Canadian Arctic Resources Committee, Ottawa).

⁷⁷ Arild Moe and Valeriy Kryukov, "Observations on the Reorganization of the Russian Oil Industry," *Post-Soviet Geography* 35, February 1994, pp. 89-101, at 99

⁷⁸ Moe and Kryukov, pp. 99,100.

⁷⁹ Moe and Kryukov, p. 100.

⁸⁰ State Program of Privatization of State-owned and municipal enterprises in the Russian Federation, Annex 2, section 3.4, *Rossiyskaya gazeta*, January 4, 1994. See also section 10.1 requiring consultation with these regional associations in development of local privatization programs.

⁸¹Ye. D. Aipin, "Not by oil alone," *Moscow News*, 2: 9,10; reprinted in IWGIA (International Work Group for Indigenous Affairs) Newsletter 57: 136-43.

Aipin served as a Peoples Deputy in the Russian Parliament and, in November 1993, was elected President of the Association of Small Nationalities of the North.

⁸² These proposals were put forward at a Conference on Problems of the Indigenous Peoples of the North that took place at Komsomol'sk-na-Amure, reported by Sergei Akulich, *Argumenty i Fakty*, transmitted electronically by

Sacred Earth Network, "The Resolution has been Passed: Indigenous People
Need a Ministry," January 31, 1995.