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Assessment of Social and Cultural Impact on Indigenous

Peoples of Expanded Use of the Northern Sea Route

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FOREWORD - INSROP WORKING PAPER

INSROP is a five-year multidisciplinary and multilateral research programme, the main phase of which commenced in June 1993. The three principal cooperating partners are Central Marine Research & Design Institute (CNIIMF), St. Petersburg, Russia; Ship and Ocean Foundation (SOF), Tokyo, Japan; and Fridtjof Nansen Institute (FNI), Lysaker, Norway. The INSROP Secretariat is shared between CNIIMF and FNI and is located at FNI.

INSROP is split into four main projects: 1) Natural Conditions and Ice Navigation; 2) Environmental Factors; 3) Trade and Commercial Shipping Aspects of the NSR; and 4) Political, Legal and Strategic Factors. The aim of INSROP is to build up a knowledge base adequate to provide a foundation for long-term planning and decision-making by state agencies as well as private companies etc., for purposes of promoting rational decisionmaking concerning the use of the Northern Sea Route for transit and regional development.

INSROP is a direct result of the normalization of the international situation and the Murmansk initiatives of the former Soviet Union in 1987, when the readiness of the USSR to open the NSR for international shipping was officially declared. The Murmansk Initiatives enabled the continuation, expansion and intensification of traditional collaboration between the states in the Arctic, including safety and efficiency of shipping. Russia, being the successor state to the USSR, supports the Murmansk Initiatives. The initiatives stimulated contact and cooperation between CNIIMF and FNI in 1988 and resulted in a pilot study of the NSR in 1991. In 1992 SOF entered INSROP as a third partner on an equal basis with CNIIMF and FNI.

The complete series of publications may be obtained from the Fridtjof Nansen Institute.

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Introduction

The main objective of this paper is to describe social, economic and cultural living conditions of indigenous peoples of the North and impact assessment of expanded use of the Northern Sea Route.

The problem of social and cultural impact on indigenous peoples with expanded use of the NSR has been studied in a number of Working Papers of Russian and foreign authors within the framework of INSROP. These Working Papers deal with both specific regions: Lower Yenisey Valley (1995, N 18), Western Alaska (1996, N 33), Republic of Sakha (Yakutia) (1996, N 49), Chukchi AO (1996, N 51) and the Russian North generally (1997, N 93).

The given Working Paper takes into consideration the problems of indigenous people within the whole area of the Russian North influenced by the NSR. In comparison with the past the present studies of the NSR are more comprehensive.

The studies include two principally different time periods for the indigenous peoples of the North. The first period is the years 1979-1990 when, as a rule, welcome trends in the development of the North and the NSR were supported by the Soviet government. National minorities of the North managed to keep and develop (not without positive influence of the NSR) unique culture and traditions, and considerably contributed in the development of human civilization.

In the second period (1991-1997), problems of indigenous peoples were studied, during changes occurred due to economic reforms. Traditional economic industries and cultural - communal settlement of indigenous peoples proved to be under destructive influences in the face of transformation to market relations. This paper is an overview and assessment of measures undertaken by the State [1-3] to stabilize social and cultural life conditions of indigenous peoples of the North. In assessing the social and economic demography of indigenous peoples, the official statistics [4,5] and materials of the 1990 Minority Northern Peoples Congress [6] and also scientific results of the Institute of Ethnology and Anthropology of the Russian Academy of Sciences [7] are used.

The social and cultural impact assessment is executed in accordance with the scenarios

of development for the NSR as defined in the Outline of Project IV.4.1 Description. Also, all decisions of the Russian Government in connection with the delivery of products and goods to the North [8-9] are taken into consideration.

Results of INSROP Working Papers [10-12] are also used in this Paper.

Certain measures to improve social and economic demography of indigenous peoples of the North and to provide a beneficial impact of the NSR on these peoples are given in the conclusions of this paper.

1. Social and Economic Demography of Indigenous Peoples in the NSR Zone.

Considered in this paper are the areas, where indigenous peoples in the Russian North live, which are covered by the NSR zones of influence. As shown in Fig.1 these zones embrace a considerable part of northern territory and almost all regions of the Arctic.

In accordance with the Decree of Supreme Soviet of the Russian Federation (March 2, 1980), four autonomous okrugs (Nenets, Yamal-Nenets, Taimyr, Chuckchi), six administrative districts and administrative units in Murmansk Oblast and five administrative districts in the Republic of Sakha (Yakutia) were attributed to the Arctic zone.

The zone of the North is 64% territory of the Russian Federation and populated with 11,5 mil. people (7,8% of country population). The population of Russia was 147.6 mil. people in October 1996. The arctic territory is about 3 mil. sq. km with a population of 1.8 mil. people.

1.1. Indigenous Peoples of the North: Settling, Demography, Labor Potential [4,5].

26 minority peoples of the North live in zones of the Russian Arctic and Sub-Arctic affected by the NSR (through the Eurasian drainage network, river basins of the Ob, Enisey, Lena and others). The population of minority peoples was 184 478 people in 1989 [4]. The population of northern peoples 16,5% increased from 1979 to 1989 (Table 1.). Growth of rural population came to 10,9%. The population of the North stabilized within the said period with some growth.

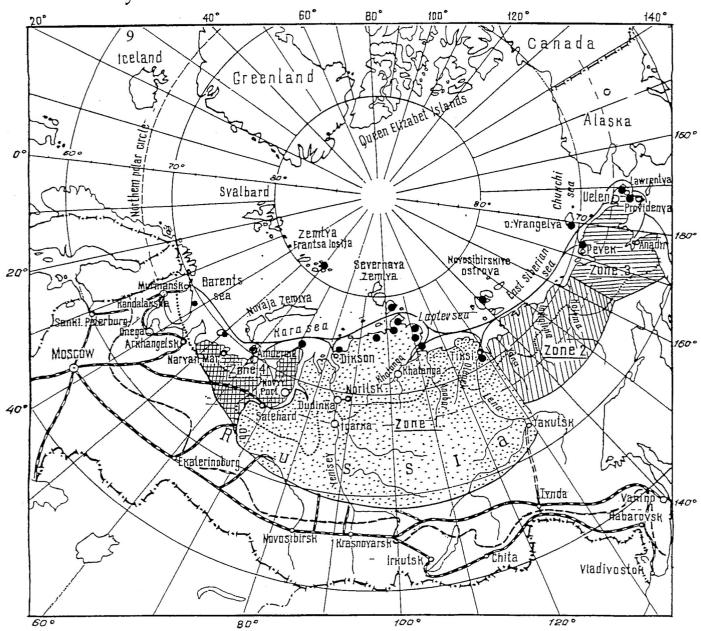


Fig.1.1.
Scheme. Zones which might be affected by the influence of the Northern Sea Route

- Zone 1 - "NSR - rivers - railways"

- Zone 2 - "NSR - rivers"

= - Zone 3 - "NSR only"

----- - Border of the Arctic

---- - Border of the North

- Northern Sea Route

- railway

==== - railway in stage of design.

• - places of the visits for foreign tourist.

Stability of northern population was reached in 1979-1989 due to setting special privileges and benefits (free medicine, clothes for children, exemptions for those who enter colleges, free upkeep in children houses, fishing and hunting quotas, etc.). These measures ensured a certain support for the self-esteem of the northern peoples.

Economic and cultural state of indigenous peoples in 1991-1995 declined considerably. This fact was a reflection of the overall situation in the country. The transition to market relations weakened the State regulation. The State Program of the Economic and Cultural Development of Indigenous Peoples of the North for the Years 1991-1995 [1] was only partially executed: 1991 - 30%, 1992 - 17%, 1993-1994 - 4%, 1995 - 2%.

As a result, the destruction of traditional industries began. Production in fish, fur and sea animals industries reduced by half. Collection of mushrooms, berries, nuts and medicinal herbs ceased. Migration of non-indigenous peoples in large scale led to liquidation of settlements and social infrastructure utilized by indigenous peoples.

The environmental situation in areas of industrial development proved to be unfavorable for indigenous peoples. A number of them is now on the brink of the physical disappearing.

Medical, cultural, commercial and communal services are practically absent. Average lifetime of indigenous peoples of the North became lower than in other Russian regions by 10-11 years. In 1990-1993 birth rate decreased by 34%, while death rate increased by 42%, which led to cessation of the natural regeneration of many indigenous peoples [1]. The majority of indigenous peoples having only elementary and incomplete secondary education is not qualified for a skilled full time job. They are beginning to lose their ethnic, cultural and social traditions and languages.

The problem of regeneration and development of indigenous peoples became typical not only of Russia. UN Resolution N 48/163 of December 21, 1993 declared the international decade of indigenous peoples of the world since December 10, 1994. This is an encouraging result of peoples' activity in the North, in particular of the resolutions adopted by the two Congresses of indigenous peoples of the North (Moscow 1990 and 1993) as well as of the activity of Russian and regional associations of indigenous peoples.

Table 1. Population figures for the indigenous peoples of the North, RSFSR [4,5]

	Number of ind	igenous peoples i	n 1989 and % 197	79
Indigenous peoples	Total number of indigenous peoples	% 1979	Including rural	% 1979
1. Nenets	34665	115,9	28340	112,5
2. Evenks	30233	110,8	23909	111,9
3. Khanty	22521	107,6	15649	97,5
4. Evens	17199	137,3	12769	124,5
5. Chukchi	15183	108,4	12995	108,5
6. Nanaitsy	12017	114,3	7210	109,3
7. Koryaki	9242	117,3	6371	113,9
8. Manci	8459	111,8	4490	93,3
9. Dolgany	6092	137,0	5283	123,5
10. Nivhi	4673	106,3	2284	99,0
11. Selkups	3612	101,3	2664	93,5
12. Ulchi	3233	126,7	2287	125,2
13. Itelmens	2480	181,0	1485	154,4
14. Udegeitsy	2011	129,6	1186	110,6
15. Saami	1890	100,1	1117	97,3
16. Eskimos	1718	113,8	1315	115,1
17. Chuvantsy	1511	-	639	-
18. Nganasany	1278	147,4	915	121,5
19. Yukagirs	1142	136,8	698	122,5
20. Kety	1113	99,2	891	100,3
21. Orochi	915	-	468	96,1
22. Tofalary	713	95,8	625	124,5
23. Aleuty	702	128,6	408	124,4
24. Negidalts	622	123,4	363	108,0
25. Entsy	209	-	117	-
26. Oroki	190	-	28	_
TOTAL	184478	116,5	134503	110,9

The problems of stabilization of the economic and social development of indigenous peoples in Russia are being solved in accordance with both the Federal Law "Bases of the State Regulation of Development of the Russian Federation North" of 1996 [2] and the Federal Program "Economic and Social Development of Small Indigenous Peoples of the North up to 2000" [3]. These documents define the legal, organizational and material bases of the State regulation of the economic and cultural development of indigenous peoples, development of transport system under conditions of the political and economic reformation in Russia. Practical effect given to these documents is shown hereafter.

An analysis of possible consequences of demographic development of northern peoples is performed for most Arctic regions strongly influenced by the NSR - Murmansk Oblast, Nenets, Yamal-Nenets, Taimyr, Chukot Autonomous Okrug and Republic of Sakha (Yakutia).

1.1.1. European North

Murmansk Oblast

In 1995 all population of the region numbered 1091500 persons and decreased in comparison with 1989 by 6% (in 1989 population growth in comparison with 1979 was 19.1%; see Table 2). The majority of the Saami people live in the region (in 1989 there were 1,615 persons or 85.4% of all the Saami); Komi population numbers 1820; besides there are some representatives of Nenets, Evenki and other peoples of the North (see Table 3). As to the indigenous peoples of the North, the rural population of the region slightly increased by 1995 (from 1226 to 1273 persons), the Saami included, (from 1117 to 1140 persons; see Tables 2 and 4); in 1989 urban population among the Saami was 37%.

From 1989 till 1995 proportion between males and females² in the Saami people changed: in 1989 there were more females than males (581 and 536), in 1995 males became predominant (587 and 553). In 1995 men of working age (16-59 years) accounted for 58% of the total number of Saami women.

¹ The statistical data for 1995 include only rural population, so we made a comparison with 1989 only for this category of population.

² Until now there were more females than males among many peoples of the North.

Table 2. Total population and the indigenous peoples of the North in Arctic regions of Russia [4,5]

	Total population		Indigenous	s peoples of th	e North
Region			Total	Rural population	
	1989	1995	1989	1989	1995
Murmansk Oblast	1164586	1091500	1944	1226	1273
Nenets Aut. Okrug	53912	49300	6471	5637	6541
Yamal-Nenets Aut. Okrug	494844	468800	30203	26348	30825
Taimyr Aut. Okrug	55803	47300	8735	8027	8477
Republic of Sakha (Yakutia)	1094065	1060700	24817	20058	21103
Chukchi Aut. Okrug	163934	99700	16026	14088	15225

Table 3. Number of the indigenous peoples of the North in Arctic regions of Russia on January 1, 1989 [4] (persons)

Peoples of	Murmansk	Nenets	Yamal-	Taimyr	Respublic of	Chukchi
the North	Oblast	Autonom. Okrug	Nenets Autonom. Okrug	Autonom. Okrug	Sakha (Yakutia)	Autonom. Okrug
Saami	1615	-	-	-	-	-
Nenets	176	6423	20917	2446	23	20
Khanty	-	-	7247			
Selkups	-	-	1530	-	-	_
Nganasany	-	-	-	849	-	_
Dolgany	-	-	-	4939	408	-
Entsy	-	-	-	103	-	-
Evenks	20	27	45	311	14428	54
Events	-	-	32	-	8668	1336
Yukagirs	-	-	-	-	697	160
Chukchi	-	-	-	-	473	11914
Eskimos	-	-	-	-	-	1452
Chuvantsy	-	-	-	-	-	944

Table 4. Number of rural population of the indigenous peoples of the North on January 1, 1989 and January 1, 1995 [4,5] (persons)

Peoples of	Total population		M	lale	Fen	Female	
the North	1989	1995	1989	1995	1989	1995	
Saami	1117	1140	536	587	581	553	
Nenets	28340	32124	13635	15585	14705	16539	
Khanty	15646	18064	7445	8671	8201	9393	
Selkups	2664	3166	1275	1543	1389	1623	
Nganasany	915	818	453	351	462	467	
Dolgany	5283	5679	2486	2875	2797	2804	
Entsy	117	129	71	67	46	62	
Evenks	23909	25780	11737	12308	12172	13472	
Events	12769	12274	5742	6020	7027	6254	
Yukagirs	698	681	336	352	362	329	
Chukchi	12996	13817	6247	6746	6749	7071	
Eskimos	1315	1341	634	664	681	677	
Chuvantsy	639	553	292	269	347	284	
TOTAL	106407	115566	50888	56038	55519	59528	

By 1995 the number of men and women, aged 55-60 and more, decreased among the Saami to a lesser degree than among the indigenous northern peoples taken as a whole: this category of population accounted for 12% of the total number of Saami men (6.5% when referring to the total number of male indigenous northern population) and for 18.8% of the total number of Saami women (10.7% when referring to female indigenous northern population). Natural increase of the Saami population in 1993-1994 was negative: -10 and -8 persons.

Nenets Autonomous Okrug

In 1995 all population of the area numbered 49300 persons and decreased in comparison with 1989 by 8.5% (in 1989 population growth in comparison with 1979 was 12.4%). The indigenous population in this area constitutes 18.5% of all the Nenets (in 1989 -

6423 persons) and includes some representatives of Evenki and other peoples of the North. Rural indigenous population of the Okrug increased by 1995 in comparison with 1989 (from 5637 to 6541), Nenets included; in 1989 the urban Nenets population constituted 17.1%, whereas the urban population of the okrug constituted - 12.9%.

Proportion between males and females in the Nenets people as a whole, including Nenets living in the Yamal-Nenets and Taimyr Autonomous Okrugs³, changed: while in 1989 there were more males than females (13635 and 14705), in 1995 vice versa there became more females than males (16539 and 15585). In 1995 men of working age constituted 50.5% among the Nenets people, women - about 49%. In 1995 the number of men and women, aged 55-60 and more, among all Nenets was near to the data on other indigenous northern peoples: this category of population constitutes 6.7% of the total number of men and 11.9% of the total number of women.

Natural increase in Nenets population was positive on the whole, but from 1993 till 1994 it decreased from 605 to 464 persons.

1.1.2. Western Siberia

Yamal-Nenets Autonomous Okrug

In 1995 all population of the area numbered 468800 persons and decreased in comparison with 1989 by 5% (in 1989 population growth in comparison with 1979 was 89%). Over 60% of all the Nenets (in 1989 - 20917 persons), one-third of all the Khanty (in 1989 - 7247 persons), about one-half of all the Selkups (in 1989 - 1530 persons) live in this area. The rural indigenous population of the Okrug, increased by 1995 in comparison with 1989 (from 26348 to 30825 persons), the Nenets, Khanty and Selkups included. In 1989 a part of Khanty urban population constituted 29.8%, as to the Selkups - 25.2%.

Proportion between males and females remains the same as in 1989 both for the Khanty and Selkups - there are less males than females among them: as for the Khanty the relevant data are: 7445 and 8201 in 1989, 8671 and 9393 in 1995; as for the Selkups - 1275 and 1389, 1543 and 1623 persons respectively. In 1995 men of working age constituted

³ Data for particular regions is not available

50.5% among the Nenets, 51.6% among the Khanty, 55% among the Selkups; women of the same age - 49%, 48.2% and 54.7% respectively. In 1995, in percentage terms, the number of men, aged 55-60 and more, among the Khanty was 7.6% of the total number of men and among the Selkups - 8.2%; for women the percentages are 12% and 11.6% respectively.

Natural increase in Khanty population was positive in 1993 and 1994 (153 and 127 persons); as for the Selkups it was positive in 1993 (14 persons) and negative in 1995 (29 persons).

1.1.3. Eastern Siberia

Taimyr Autonomous Okrug

In 1995 all population of the area numbered 47300 persons and decreased in comparison with 1989 by 15% (though in 1989 population growth in comparison with 1979 was about 20%). 66.4% of all the Nganasany (in 1989 - 849 persons), 71.2% of all the Dolgany (in 1989 - 4939 persons), 7% of all the Nenets (in 1989 -2446 persons), one-half of all the Enets (in 1989 - 103 persons) and a small number of representatives of other indigenous northern peoples. The rural indigenous population of the area increased by 1995 in comparison with 1989 (from 8027 to 8477 persons). In 1989 urban population among the Nganasany was 27.5%, among the Dolgany - 19.6%, among the Entsy - 40.9%.

Proportion between males and females amidst the Nganasany and Entsy remained the same - there were more males than females among the Entsy (71 and 46 in 1989, 67 and 62 in 1995), and vice versa among the Nanasany there were more females than males (462 and 453 in 1989, 467 and 351 in 1995). Amidst the Dolgany the proportion changed: while in 1989 there were less males than females (2486 and 2797), in 1995 there became more males than females (2875 and 2804). In 1995 men of working age constituted 40.2% among the Nganasany, 54.2% among the Dolgany, 38.8% among the Entsy; women of the same age 54.4%, 51.5% and 43.5% respectively. In 1995 the number of persons, aged 55-60 and more, among the Nganasany was slightly higher for men and by one-third lower for women than the data relating to the indigenous peoples as a whole; the above number of persons accounts for 7.1% of the total number of men and 7.5% of the total number of women. Among the Dolgany these ratios were lower both for men (2.6%) and for women (5.7%) than the relevant

ratios for the indigenous northern peoples as a whole; among the Entsy the ratios were higher - 8.9% for men and 16.1% for women.

Natural increase in population was positive among the Nganasany (6 persons in 1993, 12 persons in 1994) and Dolgany (40 in 1993, 68 in 1994); among the Entsy it was negative in 1993 (-3 persons) and positive in 1994 (2 persons).

Sakha Republic (Yakutia)⁴

In 1995 all population of the northern regions of the republic, where indigenous northern peoples lived, numbered 1060700 persons. 47.7% of all the Evenks (in 1989 - 14428 persons), more than one-half (50.4%) of all the Evens (in 1989 - 8668 persons), the most part of all the Yukagirs (61%, in 1989 - 697 persons) live in the Republic. The rural population of the area, belonging to the indigenous peoples of the North, increased by 1995 in comparison with 1989 (from 20058 to 21103). In 1989 the part of urban population among the Evenks was equal to 20.2%, among the Evens - 25%, among the Yukagirs - 27.2%.

Proportion between males and females in the Evenks and Evens peoples remained the same - there were more females than males (Evenki - 12172 and 11737 in 1989, 13472 and 12308 in 1995; Evens - 7027 and 5742 in 1989, 6254 and 6020 in 1995). For the Yukagirs this proportion changed: in 1989 there were more females (362) than males (336), in 1995 on the contrary the number of males (352) was more than the number of females (329). In 1995 the men of working age constituted 51.8% among the Evens, 53.3% among the Evenks, 54.3% among the Yukagirs; women of the same age - 53.3%, 51.1% and 49.5%, respectively.

In 1995 the number of men and women, aged 55-60 and more, with respect to the total number of men and women was lower among all the three peoples than for the indigenous northern peoples as a whole: 5.2% and 9.4% among the Evenks, 6.3% and 9.5% among the Evens, 5.9% and 5.8% among the Yukagirs. In 1994-1995 natural increase of population was positive for all the three peoples: 167 and 110 persons among the Evenks, 181 and 192 persons among the Evens, 4 and 7 persons among the Yukagirs.

⁴ Arctic districts of Yakutia aren't singled out in statistical data for 1995 (with the exception of the districts of inhabitation of the indigenous peoples of the North)

1.1.4. Far East

Chukchi Autonomous Okrug

In 1995 all population of the Okrug numbered 99700 persons and decreased in comparison with 1989 nearly by 39% (in 1989 growth of population in comparison with 1979 was equal to 15%).

78.5% of all the Chukchi (in 1989 - 11914 persons), 84.5% of the Eskimos (in 1989 - 1452 persons), 60.5% of the Chuvantsi (in 1989 -944 persons), less than 8% of the Evens (in 1989 - 1336 persons) and 14% of the Yukagirs (in 1989 -160 persons) live in the Okrug. Rural population of the Okrug, belonging to the indigenous northern peoples, increased by 1995 in comparison with 1989 (from 14088 to 15225 persons). In 1989 the part of urban population among the Chukchi was equal to 14%, among the Chuvantsi - 53.8%, among the Eskimos - 22.8%.

Proportion between males and females in the Chukchi and Chuvantsy peoples remained the same as in 1989 - there were more females than males (Chukchi - 6749 and 6247 in 1989, 7071 and 6747 in 1995; Chuvantsy - 347 and 292 in 1989, 284 and 269 in 1995). As to the Eskimos the proportion changed: while in 1989 there were more males than females (681 and 634), in 1995 on the contrary there were more females than males (677 and 664). In 1995 men of working age constituted 54.8% of all men among the Chukchi, 57.5% among the Eskimos, 57.6% among the Chuvantsy; women of the same age - 54.3%, 55.8% and 52.1% respectively. The number of men and women, aged 55-60 and more, among all the three peoples is less than among all the peoples of the North in average: among the Chukchi this category is equal to 3.7% of the total number of men and 7.8% of the total number of women; among the Eskimos - 2.4% and 8.4%, among the Chuvantsy - 3.7% and 9.1% respectively.

Natural increase in population was positive for all the three peoples though it decreased somewhat from 1993 to 1994: among the Chukchi -- 102 persons in 1993 and 61 in 1994, among the Eskimos - 8 and 2 persons respectively, among the Chuvantsy - 8 and 3 persons.

On the whole the following conclusions can be drawn from the above information:

The outflow of non-native people (newcomers) from the North has increased. It is particularly noticeable in the Chukchi Autonomous Okrug.

The number of rural indigenous northern population has increased in general by 8.6% but the population growth is not the case for all the peoples — as to the Nganasany, Evens, Yukagirs and Chuvantsy the population has decreased somewhat. The causes of this phenomenon can not be exactly determined because there is no regional statistical data on separate ethnic groups for 1995. Most likely there are several explanations for the phenomenon: slight or negative natural increase, migration, growth of urban population.

Proportion between male and female population has changed amidst some peoples (Saami, Nenets, Dolgany, Yukagirs, Eskimos). This interesting phenomenon will have to be studied.

While generally in the North, people of working age constituted 52% by 1995 (39% - children and teenagers. 9% -people of elder age), among some peoples this index is essentially lower - down to 38.8% (Entsy, Nenets, Nganasany, partly Khanty, Yukagirs), among other peoples it is slightly higher - 58% (Saams, Selkups, Dolgany).

Negative natural increase of population was registered in 1993-1994 for the Saami, Selkups, Nganasany, Entsy. Among the most part of the indigenous peoples of the North there are very few old persons, men in particular — down to 3.7-2.4% as against 9% on the average (Eskimos, Dolgany, Chukchi, Chuvantsy). The causes of these negative tendencies in the demographic development of the indigenous northern peoples are the following: high infant mortality (almost 5 times higher than in Russia taken as a whole), stability and even growth of sickness rate (especially respiratory and cardiovascular diseases, active tuberculosis) and alcoholism. Mortality because of accidents, murders and suicides is high, in particular among people of middle and old age.

1.2. Traditional Economy, Commercial Aspect [6,7]

1.2.1. Murmansk Oblast

The livelihood of the Saami and Nenets as well as the Komi is mainly based on reindeer-breeding, hunting, fishing and gathering.

Reindeer-breeding is developing in only one district of the Oblast - Lovozersky District, occupying 37% of the Oblast 's territory. Almost 20 thousand people live there. The Saams (more than 900 persons) makes up about 5% of total population (though the Saami of

this district are 60% of the Saami in the whole region). The reindeer-breeding is being developed by two joint-stock agricultural companies limited (in the southeast part of the peninsula).

Since the 1980s the reindeer number in the Oblast has fluctuated from 66 to 77.5 thousand head (in private farms - up to 4 thousand head). During the last few decades the Saami reindeer-breeding had drastically changed: it has become productive instead of transport (total number of dam head has increased from 40% to 60%, reindeer herds - to 3-6 thousand head, free pasturage has been replaced by watching over the reindeer throughout the year). 65% of the herdsmen are Saami, the remainder is Komi and Nenets. Until quite recently the Kola reindeer-breeding has been unprofitable. State farms gave the most part of reindeer meet to the Murmansk meat processing and packing factory at a low price. Now a joint Russian-Swedish enterprise has been established in the town of Lovozero to process meat there.

Alienation and pollution of pastures in connection with industrial development (the Severonickel integrated industrial complex, the Lovozersky integrated mining and processing plant, the production associations "Apatit" and "Sevryba") as well as expensive transport and fuel (helicopters, snow-mobiles and snow-tractors used to gather together herds, move from one base to another, change herdsmen) make reindeer-breeding in the Kola peninsula very difficult. Some pastures are in the western part of the peninsula (Pechenga District) but they are not in use. In 1992 a treaty between Norway, administrations of Murmansk Oblast (province) and Pechenga District and the Association of the Kola Saami was signed. According to the treaty the pastures in the western part of the peninsula has been given to Norway for winter pasturage of reindeers from November to March. The treaty is not very profitable for the Russian party and so full effect has not been given to the provisions of the treaty till now.

Fishery in inner waters and mouths of the rivers, flowing into the Barents Sea, was the second traditional branch of the Saami's economy. Brigades of fishermen of the former state farms and coastal collective farms, which had been liquidated in the 1960s, were engaged in fishing (the Saami from those collective farms were resettled to the south in Lovozero and Krasnoshtcelye). Even in 1989 more than 45 ths tons of fish was caught. At present, the remoteness of fishing grounds and high cost of petrol caused fishing to become an individual

occupation for inhabitants of settlements and reindeer-breeders at summer bases as well as for some cooperative and family enterprises, catching and selling fish as a by-work. Unfortunately, the Kola fishery was also undermined by the contract concluded in 1990 for 5 years between the Murmansk Oblast Soviet of Peoples Deputies, the Kola Regional Association, and the American-Finnish Company "Gary Loomis Outdoor Adventures", on sporting fishing in the rivers, where natives used to fish (violation of fishing rules, poaching and so on).

Wild hoofed and fur-bearing animals hunting is carried out individually (before 1990 up to 4 thousand skins and 11-22 tons of meat of wild animals were bagged annually).

At the same time cage breeding of animals for furs (40 thousand head of fox, Arctic fox and mink) gave, due to sale of the skins, about 11 million rubles. Gathering of wild plants is of secondary importance as well as making of articles and souvenirs of reindeer fur, cloth and leather.

1.2.2. Nenets Autonomous Okrug.

The Nenets inhabit the territory of 16 Village Soviets, directly subordinated to the administration of the Okrug⁵. Their main livelihood is based on reindeer-breeding, hunting and fishing. More than 190 thousand reindeers are pastured there (8% of total head of this country), with more than 26 thousand head being at private farms (15.3 of farms have private reindeers). Cooperative and family associations were created on the base of some State and collective farms. Herdsmen pasture herds of 1.5-2 thousand reindeers, migrating with them to the south in the autumn and to the north in the spring. These routes are from 800-900 to 1800-2000 kilometers long. Brigades of herdsmen rotate every 1-1.5 month. 3-5 thousand tons of reindeer meat was annually sold before 1990. 10.7% of people are completely self-sufficient in meat, 19.1% - partly.

Fishing in rivers, especially in the Pechora (salmon, sig fish), and in the sea (navaga, cod and so on) is of great importance, in particular for nourishment. People sell catches of fish to the Naryan-Mar fish processing plant and fish the waters to satisfy their own needs.

The Village Soviets: Kaninsky, Kolguevsky, Omsky, Primorsko-Kuisky, Timansky, Khorey-Versky, Khosede-Kharsky, Yusharsky and others.

With rifles and nets they also hunt seal and white whale. Some years from 16-24 to 41.5 tons of fish was caught. 27.8% of all households are completely self-sufficient in fish, 34.1% - partly.

People hunt Arctic fox and ermine for furs, wild reindeer - for meat. To the greatest degree this occupation is developed in the tundra of Bolshaya Zemlya (the eastern part of the Okrug). By 1990, furs to the sum of 125 thousand rubles, meat of reindeer and other wild animals to the amount of 15.5 thousand tons were got in this district. Cage breeding of animals for furs brought 1-1.5 million rubles. Up to one-third of the total population depends on hunting.

Agriculture in the North is poorly developed. 2.5-9% of the population are completely self-sufficient in milk and potatoes, from 1% to 31.8% - partly. 37.7% of the population have land plots. Cage breeding of animals for furs, vegetable growing and stock-raising are the branches of economy for newcomers. There are produced 71 kg. of meat, 198 kg. of milk, 7.7 kg. of potatoes, 0.7 kg. of vegetables per capita in the area (in comparison with the Nenets: more meat and less the rest products).

During the last few decades a certain reduction of the traditional branches of economy has taken place, firstly in connection with the industrial development of the region and secondly because of some unsettled everyday problems facing reindeer-breeders. The intensive industrial development (oil extraction and so on) pollutes the environment and contributes to alienation of hunting lands and pastures.

The oil industry has negative influence on the traditional branches of economy: hunting grounds and pastures are allienated and polluted; the influx of newcomers is great (among them there are casual and temporary people, who do not spare nature and make drunkards of the Nenets to get furs and fish).

More than 20% of pastures have been spoiled and about 200 thousand hectares of bagging areas have been alienated and polluted; corresponding loss is 3 to 6 billion rubles, only 12 million rubles (in terms of prices prior to 1990) having been received as compensation.

If the same methods, rates and scales of oil prospecting and extraction are carried out without any recultivation, then one million hectares of pastures for 10 thousand reindeers will

be lost by 2000. Even at present there are only 75 hectares of pasture per head instead of required 100 hectares, which results in decrease of animal's weight. Heaps of scrap metal are left in the tundra after oil industry activities, ruts after cross-country vehicles cause damage to the surface layer, toxic streams of caustic soda from bore-wells and spilled oil poison rivers and lakes, fires ruin pastures and the animal world.

The Pechora River is polluted with floated timber, oil, domestic and industrial waste and farm sewage water. The ecological balance of the Pechora basin is upset, which has caused the reduction of the salmon herd and decreased salmon reproduction (two times approximately); annual loss of fish production amounts to 900 tons; for the 30-35 last years fish industry has suffered damage exceeding 60 million rubles (in terms of prices prior to 1990).

The industrial development of fishery also influences fishing negatively (for instance, a metal net fencing the Pechora river was used for predactious catching of salmon. As a result the river was fished out and fish began to go for spawning in `Scandinavia`). Often amateur hunters (usually they are industrial workers) overshoot game in the region.

Development of traditional branches of economy in the future is connected with solution of a series of problems. Firstly, it is apportionment and protection of territories for traditional use of nature and lands for reindeer-breeding, hunting and fishery. Secondly, it is improvement and equipment of the traditional branches of economy: building of structures for slaughter of reindeers, enclosures, refrigerators at slaughtering points, housing bases along nomadic routes; supply of reindeer-breeders, hunters and fishermen with ecologically pure and cheap transport in order to convey them to hunting grounds and pastures and take production out; besides, fishing in the hard-to-reach lakes and upper reaches of rivers as well as pick-up and delivery of fish from the above areas should be also ensured; in addition, some measures should be numbered with the mentioned above: safe keeping of head of reindeers, struggle against predators and blood-sucking insects and so on. Thirdly, it is a solution of personnel problems for reindeer-breeders, hunters and fishermen from the Nenets midst, improvement of their household (especially for nomadic reindeer-breeders): heating and lighting of dwellings, supply with water and salt, cultural service and teaching of children in native language etc. With these problems being not solved, the Nenets after leaving school do not want to live under the severe nomadic conditions in tundra, girls don't want to marry reindeerbreeders (e.g. in 1989 there were 50 young unmarried men in the Khongurei settlement).

1.2.3. Yamal-Nenets Autonomous Okrug⁶

The number of reindeers in the Okrug is more than 357 thousand head (17% of total number, second place in this country), though the reindeer capacity of pastures is capable to provide at least 385 thousand head. The growth of reindeer-breeding in the area dependent the growth of private reindeer-breeding, now one-half of all the reindeers is in private ownership; private reindeer-breeding is the greatest in this country. 29.9% of the Nenets, Selkups and Khanty households have reindeers. Overload of pastures with reindeers often occurs in the taiga zone in the southern part of the area. From 55 to 65 thousand tons of reindeer meat are sold annually. 30.4% of all people completely self-sufficient in meat, 20.3% - partly. Most of all reindeer-breeding is developed in the Yamal District (one-third of all the reindeers is here, the rest being in five other districts). The Nenets use reindeer-breeding for production, while the Khanty and Selkups more often use reindeer-breeding for transport purposes. Long routes of herdsmen migrating with reindeer herds are typical of the Nenets reindeer-breeding, short routes and seasonal free pasturage of reindeers are characteristic of transport reindeer-breeding.

The major problems of further development of reindeer-breeding are the same as in the Nenets Autonomous Okrug (district), they are associated with industrial development of the region, especially, extraction of gas. Even the prospecting works in Yamal caused enormous damage to pastures; the routes of migration of herds are certain to be cut off with construction of the railroad. Now more than 10 million hectares of pastures are no longer in use in the Ob North.

Amidst the Khanty fishing is one of the main occupations, amidst the Nenets and Selkups - an additional one. By 1990 catch of fish decreased from 13 to 8 thousand tons. Fishery also suffers from pollution and alienation of fishing places. For the 1970-80s thirty small rivers and scores of lakes were put out of use in the area (they are polluted, partitioned off with dams and jammed with logs; sand for covering bore-sites is taken out from them). Fishing more and more assumes individual character. About 50% of population catch fish for

For detailed discussion of indigenous peoples of the Yamal-Nenets A.O. see forthcoming INSROP Working Paper from project IV.4.1

personal needs; 33.9% are completely self-sufficient in fish, 27.4% - partly.

Hunting is also reducing in connection with alienation and pollution of hunting places (by 17 million hectares in all the Arctic regions). People mainly hunt Arctic fox, ermine, wild reindeer. From 25% to 34% of population have hunting equipment. There were got up to 3,4 thousand tons of meat of wild hoofed animals; purchases of furs made up 0.5 million rubles by 1990. The number of hunted Arctic foxes had been reduced by the factor of two in the late 1980s in comparison with 1950. Marketable furs were got in the number of up to 33 thousand skins to a total value of 400-700 thousand rubles (in terms of prices before 1990).

Cage breeding of animals for furs (up to 15 thousand foxes and Arctic foxes) is often unprofitable because of expensive feed and shortage of own local feed (including fish). Sale of skins to the value of 4 million rubles didn't compensate their prime cost.

Vegetable-growing and stock-breeding are weakly developed, mostly near the Ob. By the beginning of the 1990s there were slightly more than 4 thousand head of beef cattle and about 500 hectares of sown land in the area. In 1991 12 kg of meat, 15 kg of milk, 2.3 kg of potatoes, 2 kg of vegetables were produced per capita in the area (as to the indigenous peoples of the North, they produce more meat and less other products). 9.4% and 0.2% of population, belonging to the peoples of the North, are completely self-sufficient in potatoes and fish, 12.4% and 6% - partly. 15.3% of population have plots of land, 4.2% - beef cattle.

1.2.4. Taimyr Autonomous Okrug⁷

Basic economic branches for the Nganasans, Dolgans, Nenets and Enets are productive reindeer-breeding, hunting and fishing. By 1989-90 the number of reindeers in the area was 77-78 thousand head, more than 20 thousand head of them being in private households. 8% of all households have reindeers. While farmer and family economic associations being created, large Soviet farms continue to work. Some of them have up to 15-16 thousand head of reindeer (Ust-Yeniseisky District). From 700 to 2000 tons of reindeer meat are produced annually (mainly for one's own consumption; 33.8% of population are completely self-sufficient in meat, 31.2% - partly, meat of hunted wild animals included).

For detailed discussion of indigenous peoples of the Taimyr A.O. see forthcoming INSROP Working Paper from project IV.4.1

Since 1975 till 1990 the Taimyr reindeer-breeding had reduced by nearly 20 thousand head in connection with construction of the main pipe-line Messoyakha-Norilsk and establishment of all-the-year-round navigation along the Yenisey (owing to the NSR activity). The latter made some farms, having summer and winter pastures on both banks of the river, give up annual seasonal nomadic migrations and reduce household reindeer-breeding.

Hunting is of great importance, especially hunting wild reindeer, more than 0.5 million head of the animals being here in some seasons. Up to 25 thousand tons of meat of wild reindeer are given for sale in a season. People also hunt Arctic fox, ermine, wildfowl (up to 50% of population). In 1989-90 hunters got furs to the value of 1.2-1.7 million rubles. However, in the last years (in connection with the industrial development of the North), firstly, poaching has badly grown and, secondly, the wild reindeer has begun to migrate to the east. The building of electric power station on the Yenisey in 1975 negatively influenced the possibilities of seasonal migrations of wild reindeer herds as well. Pick-up and delivery of meat of hunted animals to towns and workmen's settlements are a difficult task because all-the-year-round navigation along the Yenisey (in connection with the NSR activity) makes ice roads across the Yenisey broken.

Up to 50% of population depend on fishing mainly for their own needs. Before 1990 up to 3.4 thousand tons of fish was caught. 43.8 of population are completely self-sufficient in fish, 31.5 % - partly. The all-the-year-round navigation along the Yenisey negatively influences fish resources, too: physical anomalies have been noted among valuable fish species. The anomalies develop also in connection with rotting of vegetation in river basins (e.g. the Khantaika River) under the influence of construction of hydroelectric power stations.

Owing to gathering 1.7% of population are completely self-sufficient in berries and 15.8% - partly. By 1990 cage breeding of animals for furs brought up to 800 thousand rubles, quite often without covering the expenses. Vegetable-growing and stock-breeding are poorly developed: the peoples of the North have practically no land plots here; only 0.6% of population are self-sufficient in potatoes, 14% are completely self-sufficient in vegetables and 12.6% - partly. There are 1800 head of neat cattle in the area, mostly in suburban agricultural units. 22 kg of meat, 60 kg of milk, 16 kg of potatoes and 0.4 kg of vegetables.

The Norilsk integrated mining and metallurgical works has negative influence on development of the traditional branches of economy (harmful releases in the atmosphere,

1.2.5. Republic of Sakha (Yakutia)⁸

The main occupations of the Evens, Evenki, Yukagirs (and Northern Yakutia) are reindeer-breeding, hunting and fishing. Yakutia keeps third place in number of reindeers. There are 350 thousand head including some 40 thousand private animals; about 30% of all the households have reindeers. 12.5% of population are completely self-sufficient in meat (including meat of hunted wild animals), 34% - partly. Purchase of meat is slightly more than 6 thousand tons annually. The major problems of development of reindeer-breeding are the same as in western regions. The improvement of herdsmen's everyday life and training of young reindeer-breeder personnel are problems of a particular significance.

From 20% to 40% of population depend primarily on hunting; annually hunters got furs (Arctic fox, ermine, fox and others) to the total value of 4-6 million rubles (in terms of prices prior to 1990). Meat of wild reindeer is got for sale too (up to 30 thousand tons). Less than 30% of population depend on fishing. Annually from 1.5 to 4.7 thousand tons of fish were caught for sale. 13.5% of population are completely self-sufficient in fish, 25.1% -partly. 11.6% of population are completely self-sufficient in berries, 12.7% -partly. Sale of skins, received from cage breeding of animals for furs (Arctic fox, fox) brought more than 900 thousand rubles and not always covered expenses. Agriculture is developed mainly in the southern part of the republic. 13.5% of population, belonging to the indigenous peoples of the North, have land plots. 5.9 % of population, belonging to the indigenous peoples of the North, are completely self-sufficient in fish, 9.5% - partly; in vegetables - 1% and 7.4 %, respectively.

1.2.6. Chukchi Autonomous Okrug⁹

The chief occupations of the Chukchi are reindeer-breeding, hunting and partly fishing; the Eskimos and part of the coastal Chukchi are sea animals hunters. The Chukchi

For detailed discussion of indigenous peoples of the Republic of Sakha (Yakutia) see INSROP Working Paper No. 49-1996, project IV.4.1.

For detailed discussion of indigenous peoples of the Chukhi A.O. see INSROP Working Paper No. 51-1996, project IV.4.1.

reindeer-breeding is one of the most developed in this country. There are kept about 25% of the total number of reindeers - in some years (the 1980-90s) up to 0.5 million head. There were not many reindeers in private households, slightly more than 25 thousand head (prior to 1990); at present private reindeer-breeding is expanding on the base of collective sector. Up to 30% of all the households have reindeers. More than 9 thousand tons of reindeer meat are sold annually. 9.2% of the population are completely self-sufficient in meat, 27% - partly. Reindeer-breeding is especially developed in Anadyrsky, Bilibinsky and Chaunsky Districts. The problems of the Chukchi reindeer-breeding are similar to those facing the Taimyr reindeer-breeders -- training of young reindeer-breeding personnel, transfer of old men's experience to them, improvement of nomadic life conditions, regular radio communication.

Hunting sea animals is developed in Chukchi and Providensky Districts. The Chukchi and Eskimos are past masters in this hard traditional occupation. True, during the last 30-40 years this occupation began to decline in connection with both development of industrial sea animal hunting with the use of large ships and restrictions imposed on whale hunting. Nevertheless, sea hunters not only supply themselves with meat but also purvey it for reindeer-breeders in exchange for meat of reindeer. Meat and fat of sea animals remain basic and beloved food for the coastal Chukchi and Eskimos.

Up to 14% of population depend on hunting fur bearing animals, wild reindeer and wildfowl, 25,6% - on fishing. Furs were sold to the amount of 2.5 million rubles (1990); fish (catch -- 0.2 thousand tons) is used for food. More than 8% of the population, mostly living in towns and big settlement, have land plots, 8% of the population are completely self-sufficient in potatoes, 4.5% -- partly; in vegetables - 2.4% and 2.8%, respectively; in berries - 12.2% and 15.8%. Stock-breeding is poorly developed and mostly at suburban farms.

On the whole one can draw the following conlusions:

While the Arctic regions of the Republic of Sakha (Yakutia) haven't badly suffered from industrial development, the industry in Chukotka (especially mining industry - gold, tungsten, coal) is more and more expanding and influencing negatively the development of the traditional branches of economy.

In the Russian North as a whole the level of industrial development has decreased for the last few years: comparing the data for 1993 and 1994 one can see that there was produced less electric power, extracted less oil, coal and gas, received less timber (by 5, 16 and 21 per cent respectively). Catch of fish dropped by 13.4% (from 517 to 448 thousand tons), production of furs and fur articles - by 7% (from 5063 to 4713 million rubles). Output of commodity food production, including canned fish, dropped from 189 to 159 thousand tons.

The same picture one can see in agriculture: sown areas was reduced by 30%, gross production of grain, potatoes and vegetables - by 26-60%, number of black cattle - by 14%, number of reindeers - by 7%, meat production - by 16% (including reindeer meat - nearly by 9%). The number of fur bearing animals at fur farms was reduced by 13.5-23.5%. For the last four years the catch of fish and getting of furs and sea animals has dropped by one third. Gathering of mushrooms, berries, nuts, medicine plants and seaweed has nearly ceased (except individual gathering for one's own use). 60% of all the produced commodities haven't been transported to places of sale and have become worthless because of high air, railway and other tariffs.

To run the traditional branches of economy is difficult due to impairment of environmental conditions. It is especially typical of the European and Western Siberian North (Nenets and Yamal-Nenets Autonomous Okrugs). Measures for environmental protection are ineffective and don't correspond to the rates of the technogenic burden imposed on natural biological resources. An enormous harm to water resources is caused by numerous accidents at oil pipelines and pouring out sewage. Violation of ecological requirements, when developing oil and gas fields, is generally lead to the twofold reduction of catch of fish. Rivers are especially polluted in the Komi Republic (Pechora, Vorkuta, Inta, Kolva, Uhta). An enormous harm to fish resources has been done by enterprises of timber industry with industrial felling, including upper reaches of spawning rivers. A total area of degraded reindeer pastures exceeds 230 million hectares (68% of their whole area). It takes place because pastures have been 'congested' with livestock, soil and vegetable cover have been broken (uncontrolled transport movement outside roads), deposits of minerals have been developed, prospecting have been carried out. All that puts reindeer-breeding among economic branches with very problematic future.

The spheres of application of native labour force are being reduced: only in 1992 the number of working people decreased by 10%, nearly a half of able-bodied population doesn't have regular work. The living standards of the peoples of the North are going down; in 1994 a drop in purchasing capacity and real money income of population were noted. Data on five

regions are summarized in Table 5.

The higher prices of food-stuffs and other goods are typical of these regions mainly because of high costs of transport, petrol and supply with food and goods in general. The further development of the NSR (and especially food and goods supply with small ships) helps to solve some of these problems.

In this connection the significance of natural products is growing up. In 1993-1994 it totaled more than a half of all the entries and increased in comparison with 1993 (Table 6).

Up to now the situation in the Arctic regions of the country is difficult and conditions of indigenous peoples are scanty and heavy.

Table 5. Spheres of application of labour and living standards of the peoples of the North, (monthly average) [7]

Region	Money income per capital, thend rubles		Cost of the set of 19 food stuffs, thend rubles		Specific cost of foods (contra income), %	
	1993	1994	1993	1994	1993	1994
Nenets Aut. Okrug	24.3	91.2	13.8	70.7	56.8	77.5
Yamal-Nenets Aut. Okrug	35.2	118.2	13.9	79.9	39.5	67.6
Taimyr Aut. Okrug	13.4	67.5	13.1	53.8	97.8	79.7
Republic of Sakha (Yakutia)	33.0	141.7	15.8	126.6	47.9	89.3
Chukchi Aut. Okrug	30.5	376	19.0	104.7	62.3	27.8

Table 6. Consumption of natural products (per cent of total supply) [7]

Region	Meat		F	Fish		Potatoes	
	1993	1994	1993	1994	1993	1994	
Nenets Aut. Okrug	24.4	30.6	22.7	28.4	12.5	60.4	
Yamal-Nenets A. O.	5.8	8.2	46.3	21.3	48.9	27.9	
Taimyr Aut. Okrug	59.8	40.8	92	90	-	-	
Republic of Sakha (Yakutia)	36.2	31.6	57.2	56.5	43.3	8.8	
Chukchi Aut. Okrug	data not available						

1.3. Health Protection, Education, Public Utilities

<u>Health protection</u> in the North is far from being satisfactory. It especially concerns the nomadic reindeer-breeders, hunters and fishers in small remote settlements which can be reached only by river or by air.

Since the thirties the travelling medical brigades have been widely used in the North. They worked on ships and carried out clinical examination and treatment of population in all the northern settlements along the rivers. Such practice is still exist in the Khanty-Mansi Autonomous Okrug but it has declined because of expensive fuel.

The same reason has reduced the sphere of the air ambulance action (only extraordinary cases are served and not always). Many deaths of aborigines (including children) living in remote taiga settlements or simply in taiga occur; medical aid haven't been rendered in good time because even a portable radio transmitter and air ambulance are often not available in these regions. At present in connection with the transition to market relations the collective and state farms have collapsed, lands and pastures have been leased to the indigenous peoples and people are often leaving for taiga by families.

Under such conditions the problem of development of means of communication and river- and water transport (including the transport facilities for medical aid) is especially urgent.

Medical service for the peoples of the North has become worse for the last time including supply with medicines (indigenous peoples of the North get medicines free of charge). The service develops only owing to the State financing (unfortunately insufficient). As a rule the first-aid posts and hospitals in the North are poorly equipped and the number of qualified physicians is low. The number of T.B. prophylactic centers is reduced and somewhere they have vanished (especially in district centers).

The bad health service for the indigenous peoples of the North is one of the reasons of their high mortality (especially - infant mortality).

The education of the indigenous peoples of the North has many shortcomings. Firstly, now as before now it is cut off from the traditional economy and way of life. Secondly, the education in boarding schools isolates children from their parents and other family members.

Thirdly, the school education is in Russian and native languages are being studied badly. The languages of the indigenous peoples of the North have many dialects, which makes the development of the written languages difficult. The differences between dialects in some aboriginal languages are defined by linguists as differences between separate languages. For example the Khanty written language has been worked out for five dialects (for those simple reason that the groups of the Northern Khanty don't understand the Southern and Eastern Khanty), the Mansi written language - for two dialects etc. In this connection separate educational and methodological supplies are required for every dialect. They are being elaborated slowly because it is expensive process (by the way the ABC books are very expensive too) and the number of qualified linguists is insufficient.

In order to place the schools near to the aboriginal places of living (and areas of migration) so-called little-complete schools have been built, i.e. the schools for teaching of some dozens of children from small settlements by one teacher. But such schools are in need of teachers as many teachers don't want to live in the settlements situated far from big villages and district centers, without developed public utilities and social infrastructure. Construction of the little-complete schools needs significant financing because a house for the teacher, shop, first-aid post etc. have to be built at the same time. The settlements are very small (5-10 or less families) and numerous, therefore the financing is insufficient.

So we have faced two alternative problems: the development of the traditional economy with preservation of the traditional way of settling and life and the development of common school education in the North. With a view not to isolate children from their parents and usual way of life the children are to be taught at the place of residence, but financing is insufficient for this purpose.

The public utilities in the North are under-developed and exist mostly in towns, town-like settlements and big villages. Small settlements and nomadic population haven't got any utilities. There aren't enough workshops and workers for sewing and mending of clothes and footwear and repairing of domestic machinery. In many houses one may see a few TV sets, radio receivers and refrigerators because nobody can repair them and if any thing fails the only way out is to buy a new article. There aren't enough sewing machines; washing machines and kitchen equipment are absent because the central water supply is not available.

1.4. Government Structures and Administrative Systems

At present the government structures and administrative systems are in the making.

Before 1989-90 the problems of development of indigenous peoples of the North were managed by the special Department of the Economic and Social Development of the regions of Inhabitance of the Northern and Arctic Peoples at the RSFSR Council of Ministers Affairs Administration (1954-1990). In 1990 the department was dissolved. In 1991 the State Committee of the Russian Federation on the Development of the North was created. This Committee is still acting.

Unfortunately this body doesn't coordinate the other ministries' activities in the North (the ministries are heavily self-sufficient, they don't take into consideration the interests of the northern peoples) and takes little care of the protection of the interests of the indigenous peoples of the North.

In the northern provinces the legislative and executive bodies of the subjects of the RF (republics, regions, autonomous Okrugs) are presently functioning. Representatives of the indigenous peoples of the North are included in all the bodies but in very small numbers as the aboriginal population of the North constitutes from 1.5 to 10-15% of the total population of the North.

The following needs improving: the system of local self-government, the system of representation of the indigenous peoples of the North in legislative and executive bodies on all levels (federation, subject of RF, local self-government), the modes of landowning for the indigenous peoples of the North, protection of the environment, compensating measures connected with the alienation and pollution of lands brought about by industrial development etc.

At present there are quite a lot of communities in the North, but they differ in many aspects and their status is not determined, so they can be considered only as economic units. The national districts are formed slowly and mostly in republics (Bauntovski Evenk district in Buryatia, Eveno-Bytanaiski district in Yakutia).

Many settlements in autonomous areas have an unofficial status of national settlement. For example in 1987 in the Khanty-Mansi Autonomous Okrug 78 villages of 162 were considered as national settlements (irrespective of whether the majority of dwellers were the

aborigines - Khanty, Mansi, Nenets - or not). But the self-government system hasn't been changed: as before in the Soviets and in the administration the majority consists of newcomers. Quite often the interests of the indigenous peoples of the North aren't protected.

Under existing conditions of the ethnic-political development of Russia, when leaders of many northern regions are looking for sovereignty or even separation, such national-territorial division into districts may provoke new conflicts. Nevertheless, it is urgent to determine national districts and settlements at those places where the indigenous peoples of the North are compactly living with their traditional economy and self-government (community).

For the purpose of improvement of administrative systems of indigenous peoples, the following draft laws were discussed at the State Duma (Decree of May 26, 1995 N 2816-1 GD) in decreasing order of importance:

- The legal status of Russia's indigenous minorities;
- Territories of traditional use of nature resources;
- Community;
- General principles of local, national and territorial regulation in regions of the compact residence of national small groups and indigenous minorities of Russia.

1.5. Archeological and Cultural Resources

There are many archeological and cultural relics and monuments in the Russian North. In the post-war period (after 1945) large-scale searching works, excavations of ancient sites (including paleolithic ones), settlements, burial grounds and cult places as well as studies of cultural monuments of the indigenous peoples of the North (sacred places, ancient settlements, remainders of ancient fortresses etc.) were carried out. The relics include paleolithic monuments in the Komi Republic, ancient sites and burial grounds near Salekhard (Yamal-Nenets autonomous Okrug), the famous Russian trade and handicraft Mangazeya town, the whale path in Chukotka and many others.

Now this work is in progress on a very small scale due to the absence of financing. But the material accumulated is significant.

1.6. Measures for Normalization of the Social-Economic Demography of Indigenous Peoples of the North.

Taking into consideration the difficult social and economic situation in the North, the Federal Law "Bases of the State Regulation of Development of the North of the Russian Federation" was adopted on July 19, 1996 [2].

Economic and cultural development of indigenous peoples of the North is based on the following principles of State regulation:

- budgetary appropriations for support and development of handicraft industries and traditional harmonious exploitation of natural resources; construction of dwelling houses, medical centers, leisure centers, pubs and clubs, schools, etc.; revival, support and development of culture, folk art, native languages; education and training of local specialists;
- credits, tax privilege to companies involved in traditional economic activities.

In accordance with the Federal Law [2] in 1996 the Federal Program "Economic and Social Development of Small Indigenous Peoples of the North up to 2000" [3] was adopted. The aim of the Program is to stabilize the economic-social development of indigenous peoples of the North, and to create conditions for fulfillment of their national and cultural ambitions, and to maintain existing traditions. The measures needed include six sub-programs and sources of funds (Table 7).

The major goals of the Program are:

- preservation of human environment of indigenous peoples, and improvement of environmental conditions;
- provision of normal life conditions for the population (transport, communications, modern houses, employment of able-bodied population, medical services);
- transition to an educational system which will respect particulars of the traditional economic activities and ethnic relations of peoples; development of the national culture, spiritual revival;
- normalization of the demographic situation; reduction of the negative influence of

newcomers on indigenous peoples; reversing of tendency to degradation and disintegration of families and communities.

Table 7. Measures (Sub-programs) of the Federal program "Economic and Social Development of Small Indigenous Peoples of the North" and their financial support measured in 1996 price terms (Rbl bln)

Period, years	Total	Including				
		The federal Budget	Budgets of the Federate Subjects	Sources out of Budget		
Sub-program	"Preservation of env	rironment and impr	rovement of the ecolog	ical situation"		
1997-2000	95.7	28.3	17.1	50.3		
1997	18.5	5.6	3.4	9.5		
Sub-program	"Life Conditions: he	ouses, public utilitie	es, fuel and power supp	olies, income"		
1997-2000	5130.7	1598.4	1133.75	2398.55		
1997	1026.0	246.4	226.0	553.6		
Sub-program "Oc	ccupational support, o	development of trac commerce"	litional industries, its p	roduct processing,		
1997-2000	1041.0	186.0	10.2	845.0		
1997	48.0	11.0	2.0	35.0		
	Sub-program "M	ledical and sanitary	r-epidemic support"			
1997-2000	618.0	233.0	255.0	30.0		
1997	100.0	46.5	51.0	2.5		
	Sub-program "Deve	lopment of transpo	rt and communication'			
1997-2000	7989.0	2009.0	1900.0	4080.0		
1997	958.1	366.0	63.1	529.0		
Sub-program "Edu	ication, culture and t	he spiritual revival	of small indigenous pe	oples of the North"		
1997-2000	340.0	240.0	50.0	50.0		
1997	68.4	48.0	10.0	10.0		
	. I	Total on the Progra	am	-		
1997-2000	15545.1*	4394.2	3378.3	7772.6		
%	100	28.3	21.7	50.0		
1997	2234.7	739.2	355.5	1140.0		
%	100	33.0	16.0	51.0		

^{*)} Including additional expenses on the complex projects.

Measures as provided for in the Program and their financial support are presented in Table 7 (with considerable federal budget deficit being taken into account). It is planed to provide 4394.2 bln roubles from the federal budget while the overall demand is 15545.1 bln roubles, including expenses on the complex projects (app. 28%); 22% are planed to provide from budgets of the subjects of the Russian Federation, and 50% - from off-budget sources. There is a trend of continuous reduction of the federal budget share and increase in off-budget share. Major financial resources are assigned for improving life conditions of indigenous peoples (33%) and developing communications (51%).

The Program provides for the use of all methods of the economic policy: credit system, State contractual system, taxation and anti-monopoly laws, leasing, tax privileges and tariff preferences, rewards, soft credits, federal budgetary appropriations.

As a rule, improvement of the material and technical base of industries and agriculture, and their equipment with modern techniques and means of transportation will be carried out through the mechanism of State orders. Leasing operations, futures contracts and commodity credits may be used to provide additional means of production.

It is supposed to use mortgage operations with their development in the country.

The orders to be fulfilled within the measures provided for in the Program, should be placed by the State customer - the State Committee of the RF of Northern Affairs — with enterprises and organizations through State contracts (orders) according to market prices.

Economic effect of the Program is believed to manifest itself in the development of productive and social infrastructures; in the establishment of enterprises of the traditional product processing in the North; in the development of handicraft industries (the overall sum is more than 14,000 bln roubles).

The volume of production of traditional industries is expected to grow twice as much, and revenues per capita by the year 2000 will increase by a factor of three, if compared with 1995.

About 60,000 new jobs should be provided to ensure full employment of able-bodied population. Besides, protective measures such as educational and professional quotes should be provided for representatives of indigenous peoples of the North.

Only 30% of the Program were fulfilled in 1997. It was believed to be a result of the

financial crisis that involved not only Russia but also many other countries. Since 1998 State budget will provide needed allocations to compensate for the above-mentioned insufficient financing.

2. Impact Assessment of Expanded Use of the NSR on Indigenous Peoples

NSR development goals are:

- effective, timely and up-to-the-standard delivery of products (goods) for northern population;
- exports of mining, oil & gas and forest products;
- development of international transit cargo transportation.

The modern state of the NSR and its prospects for the purposes of development of natural resources of the Russian North were discussed in a number of papers [10-12]. The 1994 Decree of the Government provided the elaboration of NSR's major development directions as a part of the "Program of social and economic reformations of regions of the Extreme North". However, this Decree was not executed due to financial difficulties.

This paper also concerns with good influence of the NSR on life conditions of indigenous peoples.

The future of social-economic stabilization of the Russian North is vague and unforeseeable, so the four possible scenarios of expanded use of the NSR and their positive effect on indigenous peoples are written. These scenarios are based on "Outline of Project IV.4.1 Description", 1993.

2.1. Scenarios for Expanded Use of the NSR

Four scenarios of the NSR development with respect to interests of indigenous peoples are taken into consideration in view of internal situation in Russia and foreign policy in the Arctic.

Scenario A is based on the present state of the NSR. Now there is no regular

international navigation along the NSR. Some foreign consignors charter Russian freighters for cargo transportation along the NSR. Activities of sea and river vessels in the Russian Arctic are oriented towards a higher living standard of the aboriginal population of the North. The local administration and self-government bodies get financial support from federal authorities, develop the "sea-river" infrastructure to deliver cargoes to the areas inhabited by indigenous peoples of the North.

Scenario B proceeds from the assumption that international navigation along the NSR is developed only by way of transit shipments (Russian Arctic ports are thought to be closed to foreign vessels). Russian coastwise transportation along the NSR is effected by version A with due regard to interests of indigenous peoples.

Scenario C assumes that international navigation along the NSR is developed by transit and internal coastal transportation (Russian Arctic ports and points are open to foreign vessels and tourists). Multifaceted relationships of peoples inhabiting in the Arctic region are established and maintained. Handicraft industries and folk art are encouraged. The "sea-river" infrastructure is expanded.

According to scenario D, in addition to international navigation along the NSR under version C, the transportation of hydrocarbons is developed from off shore and inland gas and oil fields, with foreign and domestic tankers and pipelines being involved. The oil and gas infrastructure negatively affects living conditions of indigenous people.

2.2. Influence on Delivery of Products and Goods

In accordance with scenario A, in recent years the main efforts of the State, subjects of the RF and local authorities in the Arctic have been directed to liquidation of the crisis in delivery of products and goods to the population of the Russian North.

In 1990-1996 the volume of cargo transportation in the extreme north regions decreased almost by a factor of two (from 50 to 25 mil. t.) due to the following causes:

- decline of the centralized supply system under market conditions;
- production crisis, absence of financial resources in the production and consumption sphere;
- disturbances in the inter-modal transport network.

In order to eliminate the two first causes, the 1994 Decree of the RF Government establishes a new mechanism of the State financial support for delivery of products and goods in good time: Federal and regional funds were established; a list of vital products/goods to be delivered according to an established centralized procedure, was specified. Financial resources of the Federal fund must be used to ensure the centralized cargo delivery according to the list and to supporting cargo deliveries carried out by the northern territories. In the second case, resources of the Federal fund are transferred, on the return basis, to regional funds at the rate of interest that makes up one third of the discount rate of the Russian Central Bank.

In order to regulate the Federal fund, the RF Government established a Commission with a view to supervise products/goods delivery to the regions of the Extreme North.

However, there remains an unsolved problem of the State support of cargo delivery to the North. In 1995-1997 the Federal fund provided only 30% of the required financing for these goals.

The last problem - disturbances in the inter-modal transport network of the North - is still under study at the scientific level. In market conditions it is supposed to be a rational distribution of cargo-flows between different modes of transport: marine, river, railway, air and road (Fig.1). "NSR - river - railway" is a system within which cargoes are delivered to consumers in the northern regions of Western and Central Siberia (zone 1). Cargo supply to the northeastern regions of the Sakha Republic (Yakutia) is carried out along the NSR and adjoining rivers – the Yana, Indigirka and Kolyma (zone 2). Cargo delivery for the Chukchi Autonomous Okrug is carried out only along the NSR (zone 3).

Heavy lift vessels carry cargoes to intermediate ports of zones 2 and 3, and small vessels deliver cargoes from intermediate ports to the harbors of discharge located on the coast or on narrow rivers. Then cargoes are transported to habitation regions of indigenous peoples by trucks on winter roads. This multi-modal transport system is more reliable and cheaper at present. The NSR ensures the required traffic volume (about one mil. t.) within this system [11]. However, the construction of facilities in transshipment harbors, construction of river vessels and provision of the road transport will require considerable financial funds.

2.3. Influence on Commercial Activity

Commercial activity of indigenous peoples could be stimulated by development of the NSR according to scenarios B and C. Besides, there is a possibility of negative influence of oil&gas transport infrastructure developed according to scenarios D in river and sea basins and ashore. It may occur if no measures are undertaken to protect traditional economy of indigenous peoples.

Up to 1990, the air transport was widely used for cargo delivery to habitation sites of indigenous peoples. At present, production produced by indigenous peoples are not moved to consumer places due to high cost of the air transportation. So the production become useless.

Indigenous peoples have to regenerate traditional transport means: oar boats, deer or dog sledge. The river transport jointly with the NSR became more expensive. Modern river vessels and cutters, motor boats, snowmobiles and fuel are not widely available.

The 1991-1995 Program [1] provides for development of transport for indigenous peoples based on the following prerequisites:

The expanded use of the NSR, especially according to the scenarios B, C and D will have beneficial consequences in respect to supply of population with food and goods and transport service. Commercial activity of supply, trade and transport organizations and institutions will increase. At the same time if the expanded use of the NSR is accompanied by more intensive activity in economic, social and cultural development of the indigenous peoples of the North (ecological measures, development of traditional branches of economy with a view to ensure aboriginal life support; construction of processing enterprises for reindeer-breeding, fishing, hunting and gathering), the structure of food and goods supply in the North will be changed because a significant part of food consists of usual, traditional meat, fish, fat and wild plants. In this case the consumption of some imported foodstuffs and goods (flour, cereals, sugar, jam as well as some textile, clothes and footwear) is likely to decrease. The young generation grown in boarding schools will hardly give up these foodstuffs and goods. At the same time the interest in some other foodstuffs and goods, which haven't been imported into the North before (or have been imported in small amounts) such as fruits, vegetables, domestic machinery etc., is growing.

The aboriginal employment structure may also be changed as a result of the

development of the NSR. Practical experience demonstrates that the indigenous peoples of the North aren't always lucky in the trade and supply business (they often peculate foodstuffs, goods and money). However, they could improve their employment condition working at water transport or as guides or workers of ecological services (let alone the work at processing enterprises based on the traditional branches of economy).

The expansion of the aboriginal employment sphere outside their traditional economy needs large preparing work for education and training of personnel at the educational institutes like the northern colleges in Canada. Personnel of other professions could also be trained there: harbor masters and dispatchers for ports, and port associated posts etc.

Arrangement of Russian and international tourism on the basis of the marine and river transport could also stimulate development of traditional trade, folk art and handicraft industry (souvenir-making). Regulated contacts with foreign tourists in this sphere could have good influence on living conditions and culture of the local population.

However, the absence of financial funds has not permitted the government to cope with this Program [1].

2.4. Structural Demographic Changes

The development of the NSR will inevitably change the demographic structure. The use of the NSR according to the scenarios A and B will raise the level of all changes. Essential changes will take place according to the scenario C and the influence of the expanded use of the NSR will be of primary significance according to scenario D.

So both negative consequences of structural demographic changes (inflow of newcomers into the North) and beneficial ones (new working places for young representatives of the peoples of the North) are possible. A necessary condition for it is the agreement of people to have new jobs and training of natives for skilled work.

In connection with the development of the NSR the need in resettlement of some groups of population from certain territories can appear. Such thing ought not to be allowed in relation to the aboriginal population of the North because the settling of the peoples of the North has been more than once changed for the late 70-75 years (transition to the settled way of life, settling in enlarged villages, alienation and pollution of lands by industrial

2.5. Influence on Health Protection, Education and Public Utilities

The development of the NSR (especially in respect of river transport) can improve the system of medical service for nomadical population living along rivers. It would make easier the annual clinical examination of the aborigines, regular treatment for alcoholism, tuberculosis and rheumatism as well as qualified medical aid (dental, surgical, optic, psychotherapeutic, pediatric etc.). Also it could improve supply the aborigines with medicines.

Organization of transport communication in the North can have good influence on: the development of education and improve connections between settlements, provision with educational medium, extension of the little-complete school network, living conditions for teachers (in order to stimulate them to work at northern settlements and small villages), teacher education of the aborigines in local colleges.

The public utilities also can be made better in connection with improvement of transport communication and supply of population with foodstuffs, goods, domestic machinery and spares. Construction of new ports make in necessary to improve the quality of the dwelling in the North including provision with water supply, sewerage, local or central heating. It can also have good influence on the life of the aborigines of the North because the settlements and houses for them will be made more comfortable.

2.6. Influence on Social and Cultural Systems

As one can see from the foregoing text, the expanded use of the NSR may usefully and beneficially affect all the life spheres of the aboriginal population of the North (including social and cultural spheres) if the use of the NSR is linked with the common problems of the development of the indigenous peoples of the Russian North. Let us note the basis of these problems once more.

1. The ecological situation in the North and especially in the Arctic should be improved. All the consequences of prospecting and mining of minerals and industrial

development of the region should be liquidated. New industrial development of the region should proceed with due regard to ecology, conservation and the use of advanced waste purification technologies.

- 2. Special territories of traditional use of natural resources should be allotted for the indigenous peoples of the North (for communities or families). The landowning is to be lifelong, hereditary and without right of sale. It should take place on the territories of the aboriginal compact habitation where they may (and should) organize national districts and settlements with communities as bodies of self-government.
- 3. In the North and especially in the Arctic (Yamal, Taimyr, Chukotka) different specially protected territories should be created, where industrial development is forbidden either for ever or for a fixed time.
- 4. The indigenous peoples of the North should be paid compensations for alienation and pollution of their traditional living territories. The compensations could form the initial capital for the development of traditional branches of economy.
- 5. A series of laws protecting the interests of the indigenous peoples of the North should be adopted (see above).
- 6. The development of the NSR should be linked with the problem of transport communication development in the North in order to improve connections between settlements, supply with foodstuffs, goods etc.

2.7. Changes in Local and Regional Administrative Systems

Besides the laws protecting the rights of the indigenous peoples of the North (rights for land, independent choose of development direction, extraordinary compensations etc.) a special body should be retained under the Russian Government. This body - the State Committee of the RF on Development of the North - would manage the problems concerning the indigenous peoples of the North (and not the territories where they are living) and coordinate relevant activities of all other ministries and departments.

The Department of the NSR and Island Territories operates within the Committee of the RF on Development of the North. This Department makes decisions on social economic problems of development of the NSR with respect to interests of subjects of the RF, of local ruling organs of indigenous peoples.

In the provinces the division into national districts and settlements is necessary as well as organization of communities as bodies of local self-government.

The delimitation of responsibilities in the sphere of NSR administration at the regional level is presently carried out by means of "Agreements" between the RF Government and RF subjects according to the following principles:

- the NSR is recognized as united national transport seaway of Russia;
- the State and subjects of the RF together elaborate programs of development of the NSR in the following spheres: ports; navigation and communication means; preserving and monitoring environment; new means of transportation for the NSR;
- financing, and distribution of revenues from NSR operations are executed according to the shares involved.

As the NSR develops, it is possible to establish the State, regional (national) and industrial organs of shipping administration for the NSR. The national organs may be placed in the ports of Amderma (Nenets AO), Dikson (Taymyr AO), Tiksi (Republic of Sakha [Yakutia]), Pevek (Chukchi AO). These national organs (Marine Operations Headquarters) should be operated by the State bodies under the Administration of the NSR.

For the purposes of the State control and protection of interests of local governing organs of indigenous peoples in cargo transportation, the united Marine Port Administration of Chukchi AO is being established.

2.8. Influence on Archeological and Cultural Resources

The expanded use of the NSR will be connected with building of new ports and make it necessary to carry out large-scale research work in order to reveal archeological and cultural relics and study them (if they will be destroyed with construction of ports, roads and settlements). It needs special financing because central and local scientific institutions and museums have no resources for work like that.

It is wise to establish some especially protected territories with unique archeological

and cultural relics.

2.9. Measures for Beneficial Impact of the NSR on Indigenous Peoples

Measures to develop transport in places where indigenous peoples live, are defined by the Sub-program "Development of transport and communication" of the Federal Program [3].

The goals of the Sub-program are to promote the development of cargo and passenger lines and motor roads united into a transport complex jointly with the NSR. Therefore, the main part (51%) of the budget specified in the Program has been allocated for 1997-2000.

Measures to be taken to develop transport for indigenous peoples are shown in Table 8.

A transport complex created on the basis of new transport techniques (Table 8) will be a connecting link between shipping lines of the NSR and habitation areas of indigenous peoples.

This transport complex will enable us to solve the following problems:

- timely delivery of products (goods);
- exports of production manufactured by indigenous peoples;
- establishment of economic and sociocultural relations aiming at stimulation of traditional handicraft industries and trade as well as improvement of sociocultural living conditions of indigenous peoples.

However, it should be emphasized that due to the crisis, only 30% of expected sum were provided for the transport complex in 1997.

Besides, the 1997 Decision of the RF Government [9] will contribute in decision-making on the problem of delivery of products (goods) to the Extreme North. This Act makes subjects of the RF more responsible for timely delivery of products (goods). Federal budget funds should be provided only for fuel delivery. Subjects of the RF have been recommended to conclude "Agreements" with the Ministry of Transport of the RF for co-operation in spheres of development and improvement of the transport complex, which ensures cargo delivery to northern regions.

Table 8. Program's measures to renew means of transportation for indigenous peoples in 1997-2000 [3]

NN	Measures	Number	Financing in
			1996 prices
			(Rbl bln)
1	Renew the existing transport park, pcs:		880.0
	- motorships and cutters	20	
	- local line aircraft	20	
	- passenger helicopters	40	
	- cross-country vehicles	60	
	- buses	200	
2	Individual transport for indigenous peoples, pcs	20000	66.0
3	Price compensation for indigenous peoples to buy non-commercial kinds of transport	-	50.0
4	Roads put into operations, km	5600	1500.0
5	Complex project: "Development of transport systems in residences of small indigenous peoples of the North"	-	21.3

Co-operation between the subjects of the RF and federal executive bodies in the sphere of transportation for indigenous peoples in the Arctic, shall be regulated by "Agreements" in the following items [15]:

- with the Ministry of Transport -- working out and fulfillment of regional programs of development of both transport for indigenous peoples and relevant infrastructure: ports, means of radio-communication, search- and rescue bases;
- with the Ministry of Foreign Affairs -- assistance to the RF subjects in the selection of foreign partners for cargo delivery to regions of indigenous peoples as well as in specification of foreign trade companies-shippers;
- with the State Hydrographic Department -- financing of work on the creation of new navigation aides for sea and river fairways, on fulfillment of hydrographic surveys of the NSR and rivers, on measures to prevent pollution from vessels;
- with Roshydromet -- delimitation of tasks on hydrometeorology and environmental monitoring at the federal and regional levels, and provision of funds for account of the federal budget (75%) and budget of the RF subjects (25%).

Conclusions (Task for the future)

- 1. The development of the Northern Sea Route and its positive influence on the indigenous peoples of the North may be achieved by giving full effect to the provisions of the Federal Law "Bases of the State Regulation of Social-Economic Development of the North of the Russian Federation", 1966 [2]. One of the principles of the State regulation laid down by the Law, is the intensive development of infrastructure, first of all communication and transport. State and foreign investments are needed to ensure start conditions for the development: formation of industrial and transportation infrastructure; housing construction; fuel/energy supply.
- 2. According to the above Federal Law, the main investment funds of the Federal Program "Economic and Social Development of Small Indigenous Peoples of the North up to the year 2000" [3], are allocated for implementation of two Sub-programs: "Development of communication and transport" (51%) and "Living conditions; housing, public utilities, fuel/energy supply, income" (33%). The transport system is to be established by 2000 in areas where indigenous peoples live. The links of this system with the NSR will contribute to economic and social development of indigenous peoples. It is supposed to cover 70% of the 1997 funds for account of the budgets of the years 1998-2000.
- 3. An acute problem of products (goods) delivery to the regions of the Extreme North are to be settled through tax privileges and tariff preferences for producers and carriers, and through increasing of the purchasing power of indigenous peoples, with State financial support being given [3].
- 4. The need to adopt a legislative act, which could regulate the development of material and technical base of the NSR, is being discussed at the level of legislative organs of the RF. It is clear that the unsettled problem of financing is capable to upset the plans of launching of new icebreakers and cargo ships for the NSR as well as the development of Arctic ports. These plans provided for in the "Program for Revival of Russian Merchant Marine for the Years 1993-2000" are expected to become a reality after 2000.
- 5 In view of interests of indigenous peoples, the development of the NSR should be based on "Agreements" between the Government of the RF and the subjects of the RF

- [13,14], and between the Russian Ministry of Transport and the relevant subjects as well [15].
- 6. The international cooperation related to the NSR and NSR associated problems, is growing in the direction of both international scientific projects (INSROP, ARCTIC BRIDGE, ARCDEV, etc.) and regional international organizations (Northern Forum, Council of Barents/Euroarctic region, Arctic Council, IASC).

International efforts are believed to contribute to development of international transit along the NSR and regional cargo transportation (export-import) with due regard to needs and demands of both the subjects of the RF and indigenous peoples.

7. For the purpose of the development of international shipping through the NSR, the ports of Dikson, Tiksi, Pevek and Dudinka are made ready for servicing of inbound/outbound foreign ships.

At present, about 40 ports and harbors on the Arctic coast and rivers are open on a temporary basis in accordance with decisions of the RF Government. Furthermore, foreign tourists, when cruising on board a Russian ice-breakers, are allowed to visit more than 30 places on the Arctic coast (Fig.1).

All of it is prerequisite conditions for the development (on the basis of the NSR) of both international social-economic-cultural relations of indigenous peoples and international marine and river tourism. Regular contacts with foreign organizations and individuals in the field of tourism and business may positively influence social and cultural life conditions of indigenous peoples of the Russian North.

8. With a view to effectively protect small indigenous peoples, the RF Government plans in 1998 to determine legislative status and rights of indigenous peoples; to make a list of settlements where small indigenous peoples live; to establish a procedure of financial support, to reduce pension age, to take health protective measures, to reform school education and training of local specialists, to take measures to develop northern deer-breeding [16].

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To Claes Lykke Ragner, The INSROP Secretariat.

I have read over the working paper "Social and Cultural Impact in Indigenous Peoples of Expanded Use of the Northern sea Route" by Sokolova, Yakovlev and Pavlenko. I have come to the following conclusions:

- 1) The paper is confusing and poorly organized. Solution: Generate detailed outline for authors to follow.
- 2) I agree with Dr. Fondahl. The title has little to do with the actual contents of the paper. The authors seem attached to their own topics and approaches. The authors seem not to be interested in the "Social and Cultural Impacts on Indigenous People". Addressing this topic would require throwing away 80 per cent of the paper. Possible solution: Let the authors address the topics that interest them. Create a new title that fits what the authors write about.
- 3) Data bombardment without analysis for some topics and at the same time many unsubstantiated statements. One author lets me know, down to the last person, how many Evenki there are for 1989. At the same time, the author states that "measures for protection of the environment are ineffective and don't correspond to the rates of the technogenic load on natural biological resources. Enormous prejudice to water resources is caused by numerous accidents at oil pipe-lines and pouring out polluted sewage." The paper presents either detailed facts or unsubstantiated statements. Possible solution: Generate an outline for authors that requires them to trim existing information, asks them to address specific questions and stick to the point.
- 4) The past, present and forecasts are confusingly mixed together. Possible solution: Address this issue in outline. Have most of the paper be descriptive and address past and present conditions. Include all forecasting in the conclusion.
- 5) Judgements are made without any argument. There is also serious contradiction among the judgements. Example: de-population and de-industrialization of the North are considered a "bad thing". At the same time, development is considered "bad" for the environment and indigenous people. Which is correct? If all these points are all true simultaneously, then how do you explain this? These are issues that are of interest and importance, but they are not discussed, merely assumed.

- 6) Most predictions are unsubstantiated. There is no critical analysis of government programs, just a listing of the programs. Can one trust that these government programs are being instituted, if the government can't even pay out pensions and salaries on time in western Russia? Are they really going to build all those facilities and infrastructure?—I doubt it. I may be wrong, but in that case I would like to see the evidence and arguments presented. These issues are precisely what is interesting about the Russian North—are the programs working, how are they working? Can wind power really be made into a realistic alternative in rural areas when the government is not even able to get potatoes and medicine to the villages? Why doesn't the paper address the increased use of subsistence systematically? If there is no data, why isn't there data about subsistence? If there is only anecdotal evidence, then just say that and provide some examples. What is the relationship between de-industrialization and increased subsistence? I know, for example, there is considerable information available in the increased use of subsistence resources in Chukotka. I also know that the main reason there is an increased reliance on subsistence is the disintegration of system of supplying food. Russian authors should be able to document this somehow in the regions of the NSR.
- 7) Style needs serious editing. I think that I have some serious criticism of some basic assumptions, but I can not even tackle these issues, since the paper is poorly organized and difficult to read. For example, "Dynamics of the development of traditional sectors of economy will hardly be changed seriously, for it is oriented to satisfy primarily needs of indigenous peoples and is not connected with significant technological innovations." I find this conclusion questionable. Look at petroleum development and traditional subsistence on the North Slope of Alaska. Native people have snow machines, are able to organize in hunting organizations, and have representation at the International Whaling Commission. This is clearly related to the petroleum development. This has not happened in Russia, but anyone forecasting the future of the NSR must take this into consideration. These kinds of questions are precisely what is interesting.

The paper can take the descriptive approach, but not about forecasts--what do the authors think about the government programs, and why? It is nor merely sufficient to describe the government programs as if their success is assured (you can not even do this in the stable US economic environment). The paper can make judgements such as that out-migration is "bad," but needs to justify this judgement.

8) Additional problems. For example, most table and figure explanations are incomplete and their relevance is not stated in the text.

MY PROPOSAL:

You might judge that it is unrealistic for the authors to write a new report that addresses the topic you assigned to them. If you follow my suggestion, outlined in point 2 than, I propose that I, with the help of Lawson Brigham, Dr. Piers Vitebsky and Dr. Fondahl, generate an outline for the authors. I propose to edit and reorganize the existing paper, paragraph by paragraph, if I can receive the electronic version of the paper. I will generate two sets of questions for the authors. One set will relate to substantiating statements they make (or they should cut them out). The second set is questions on information, data or comments they need to include to address the research topic.

If my suggestion is adopted, the overall title of the paper might be:

Social, Economic and Cultural Conditions of the Regions Served by the Northern Sea Route, with particular emphasis on [social, economic, demographic and cultural conditions in] indigenous communities.

Introduction:

Section 1: Status of the Northern Sea Route: Delivery of cargo, condition of fleet, and financing of NSR operations (not just what the government plans--is it happening? How much money?). (However, it should be pointed out that this section has little to do with indigenous people) (Yakovlev)

Section 2: Regional development and population structure in the regions served by the Northern Sea Route (Pavlenko). In this section more hard facts about development are needed.

Section 3: Social, Economic, Demographic and Cultural Status of Indigenous People in the Northern Sea Route region. (Sokolova) Should be descriptive, forecasting should be moved to the conclusion. No unsubstantiated statements about the "negative results" of development on indigenous people without specific examples. If the environment is being damaged or the social structure is being damaged, how is this happening? If there is specific damage to the environment, why is it happening, what can be done about it?

Conclusion: To include all the forecasts--with justification. Include an expanded version of Sokolova's "Social and Cultural Impact Assessment of Expanded Use of the NSR on Indigenous People" and tie it into what Yakovlev and Pavlenko think will happen.

All the best, John Tichotsky

To:	Dr.	John	Tichotsky,

Dear Mr. Tichotsky,

Cambridge

We thank for your comments and suggestions on the paper of project IV.4.1. "Social and Cultural Impact on Indigenous Peoples of Expanded Use of the Northern Sea Route".

This paper was reviewed three times. The first two reviews by Dr. Gail Fondahl prompted us to present the paper in three parts. The first part dealt with the problems of indigenous peoples, the second part — with the problems of migration, and the third one — with the problems of cargo transportation along the NSR. However, we were not able to fuse these three elements together into a united system of social-economic demography of the Russian North supported by the NSR.

We agree with you that "the paper is confusing and poorly organized" and 80% of the paper have nothing to do with the topics of the study. So we have left only two first topics to deal with in the paper: 1) social and economic demography of indigenous peoples in the NSR zone and 2) social and cultural impact assessment of expanded use of the NSR. These questions are descriptively set out; prognosis and findings are given in the Conclusions.

The new third version of the paper takes into consideration the Federal Law, Decisions of the RF Government and State program, published in 1996-1997. These legislative and normative acts are legal and real foundations for both solving social and economic problems of indigenous peoples and ensuring that the NSR will have a beneficial influence on living conditions of the peoples.

At the same time, we can not accept your suggestion that a new version of the report should be made; the reason for it is that some items in the previous report (Section1 and Section 2, page 3) have been elucidated already in INSROP Working Papers [10-12].

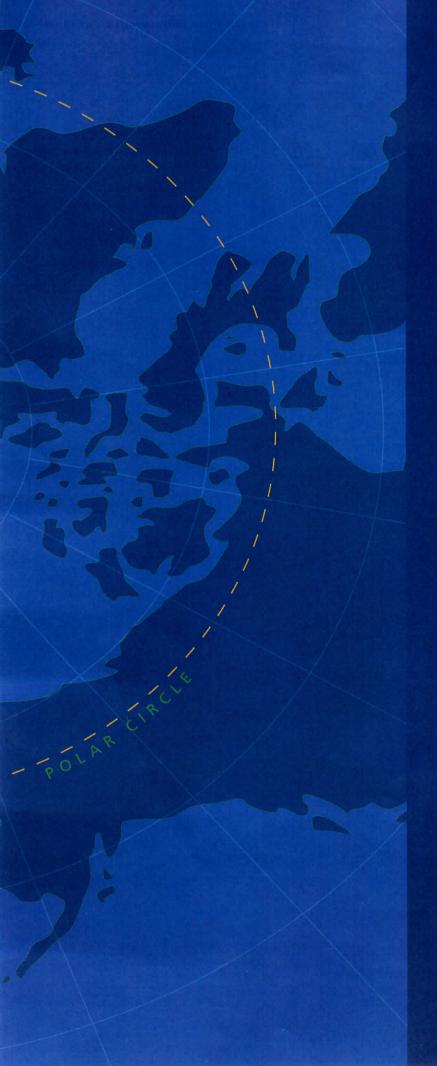
On the whole, in our opinion this version of the paper will enable us to have a deeper insight into the problems of indigenous peoples in the modern social and economic situation in the Russian Arctic, and to connect these problems with the development of the NSR.

With best regards,

Yours sincerely,

Dr.Z.Sokolova

Prof.A.Jakovlev



The three main cooperating institutions of INSROP



Ship & Ocean Foundation (SOF), Tokyo, Japan.

SOF was established in 1975 as a non-profit organization to advance modernization and rationalization of Japan's shipbuilding and related industries, and to give assistance to non-profit organizations associated with these industries. SOF is provided with operation funds by the Sasakawa Foundation, the world's largest foundation operated with revenue from motorboat racing. An integral part of SOF, the Tsukuba Institute, carries out experimental research into ocean environment protection and ocean development.



Central Marine Research & Design Institute (CNIIMF), St. Petersburg, Russia.

CNIIMF was founded in 1929. The institute's research focus is applied and technological with four main goals: the improvment of merchant fleet efficiency; shipping safety; technical development of the merchant fleet; and design support for future fleet development. CNIIMF was a Russian state institution up to 1993, when it was converted into a stockholding company.



The Fridtjof Nansen Institute (FNI), Lysaker, Norway.

FNI was founded in 1958 and is based at Polhogda, the home of Fridtjof Nansen, famous Norwegian polar explorer, scientist, humanist and statesman. The institute spesializes in applied social science research, with special focus on international resource and environmental management. In addition to INSROP, the research is organized in six integrated programmes. Typical of FNI research is a multidisciplinary approach, entailing extensive cooperation with other research institutions both at home and abroad. The INSROP Secretariat is located at FNI.