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The Arctic territories of Russia: long-term dynamics of the social space *

© Elena A. KORCHAK, Cand. Sci. (Econ.), senior researcher

E-mail: elenakorchak@mail.ru

Luzin Institute for Economic Studies, Federal Research Centre “Kola Science Centre of the Russian Academy of Sciences”, Apatity, Russia

Abstract. The Arctic territories of Russia were explored and populated rigorously and purposefully during the Soviet period. The settling pattern was then based on the industrial capabilities of the Arctic areas (mineral deposits), considering the need to develop relevant transport infrastructure. The incentive component of the Soviet propaganda of Arctic development was aimed at mobilizing the skilled workforce. The market transformation in the late 20th century caused a rapid deterioration in the social and economic situation nation-wide: the state abandoned protectionism of the Arctic territories so that state-provided preferences were significantly reduced. Such transformations eventually entailed the reduction of social and economic services and a large-scale migration outflow in the Arctic territories. The current social and economic situation in the Arctic is still characterized by a negative migration balance, which determines a decline in the level of labor force participation. The negative migration balance is attributable to the lower economic attractiveness of the region, which again brings about the issue of unemployment in the Arctic. Destructive processes in the social and economic development of the Arctic territories of Russia shape multi-faceted threats to its stable evolution. Thus, the analysis of the long-term pattern of the social space in the Arctic territories of Russia is an essential aspect of new emerging conceptual approaches towards research and practical plan for Arctic development. The purpose of the survey was to review the pattern of the social space in the modern Arctic territories of Russia between 1950 and 2018, with one of its objectives being the analysis of its social development stages based on historiographic, problematic / chronological, retrospective and comparative-historical methods. The survey shows that transformations in the consistent long-term pattern of the social space in the modern Arctic territories of Russia are determined by the intensity of its industrial development, the scale of government support, and the long-term interests of the national economy.

Keywords: *Arctic territories of Russia, unemployment, poverty, management, standard of living, concept, social development, long-term dynamics.*

Introduction

Today in Russia the European part of the Arctic zone is formed by the Murmansk Oblast, the Nenets Autonomous Okrug, Belomorsky, Loukhsky and Kemsy municipal areas of the Republic of Karelia, the town of Vorkuta of the Komi Republic, towns of Arkhangelsk, Novodvinsk and Severodvinsk, Novaya Zemlya, Onega, Primorsky, and Mezensky municipal districts of the Arkhangelsk Oblast [1, Katorin I.V., pp. 31–32]. The basis of the industrial specialization of the Murmansk Oblast is the production of apatite, nepheline and baddeleyite concentrates, the extraction of nickel and iron ore concentrate, refined copper. On the territory of the Nenets Autonomous Okrug, the northern part of the Timan-Pechora oil and gas province is located; the territory of the tundra accounts for a significant amount of solid minerals (coal, manganese ores, ores of rare, noble and non-ferrous metals, mining raw materials, fluorite) [2, Grigoriev G.A., Motruk V.D., pp. 1-

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2]. In the Arctic zone of the Republic of Karelia, there are deposits of natural facing and building stone, scarce metallic and nonmetallic useful minerals, platinum ore occurrences, ore occurrences of apatite-carbonation ores, a large clay deposit and the largest semi-precious almandine stone deposit [3, Shchiptsov V.V., Ivashchenko V.I., pp. 7–8]. Vorkuta has significant mineral and raw material potential and is the most extensive raw material base for the metallurgical, energy, and coke-chemical industries. More than 30 coal deposits have been revealed there, carbonate and clay raw materials, sand and gravel mixtures, industrial reserves of sand, unique deposits of high-quality barite, manifestations of gold and chromites, copper, manganese, phosphorites, lead and zinc, sulfur pyrites, iron ores, are located, nickel [4, Kuznetsov S.K., Timonina N.N., Kuznetsov D.S., pp. 31–35]. The resources of the Arctic territories of the Arkhangelsk Oblast are diamond and bauxite deposits, gas, oil, construction materials.

The Asian part of the modern Arctic zone of Russia is formed by the Yamal-Nenets and Chukotka Autonomous Okrug, the towns of Norilsk, the Taimyr Dolgan-Nenets Municipal District and the Turukhansky District of the Krasnoyarsk Krai, as well as the Arctic areas (uluses) of the Republic of Sakha (Yakutia) [5, Davydova M.L., Epifanov A.Y., Sharno O.I., Vanicheva M.N., p. 3]. The Yamal-Nenets Autonomous Okrug is the largest supplier of hydrocarbons in the domestic market and in the markets of Eastern and Western Europe. Industrial areas of the Chukotka Autonomous Okrug include the development of deposits of coal, oil and gas, gold, tin, and copper; platinum group metal resources are located there. The raw material resource base of the Arctic territories of the Krasnoyarsk Krai [6, Dobretsov N.L., Pokhilenko N.P., pp. 98–100] are reserves of coal, oil, gas, gold, molybdenum, copper, titanium, polymetals, iron, tantalum niobates, gold. The Arctic territories of the Republic of Sakha (Yakutia) include promising areas of hydrocarbon raw materials, coal, gold, silver and tin reserves, unique diamond deposits and a niobium-rare metal deposit [7, Sleptsov A.N., pp. 119–120].

Among the differences between the European and Asian Arctic in Russia are the following. The area of the Asian Arctic exceeds the European area by 5.5 times, while the population of the Asian Arctic territories is almost 2 times less than the European (population density of the Asian Arctic is 8.9 people per km², European — 311.9 people. per km²)¹. The population of the Asian part of the Arctic territories of Russia 13.7% are indigenous peoples (the Nenets, Khanty, Mansi, Evenki, Chukchi, Eskimos, Evens, Chuvans, Yukagirs, Koryeki, Kereks, Dolgans, Kets, Nganasans, Selkups, Enets, and Chulymts), European — 0.6% (Sami)². Unlike the European part of the Arctic zone of Russia, the Asian one has a low degree of uniformity of population distribution (this sector of the Arctic territories of Russia is less populated). Especially extreme climatic characteristics, and

¹ Federal'naya sluzhba gosudarstvennoy statistiki [Federal State Statistics Service]. URL: <https://www.gks.ru/> (accessed 12 December 2019).

² Assotsiatsiya korennykh malochislennykh narodov Severa, Sibiri i Dal'nego Vostoka Rossiyskoy Federatsii (AKMNSS i DV RF) [Association of Indigenous Minorities of the North, Siberia and the Far East of the Russian Federation (RAIPON)]. URL: <http://www.raipon.info/activity/pravovaia-deiatelnost/federal-legislation/on-approval-of-the-list-of-indigenous-small-numbered-peoples-of-the-north-siberia-and-far-east-of-th.php> (accessed 12 December 2019).

a small degree of transport accessibility due to a significant territorial extent is also typical for the Asian part of the Arctic territories of Russia.

According to the modern conceptual foundations of the state Arctic policy of Russia, the Arctic zone of the country is a strategic national priority [8, Korchak E.A., p. 8; 9, Romashkina G.F., Didenko N.I., Skripnuk D.F., p. 29] — a platform for the deployment of productive forces. Moreover, the efforts of the state here are directed only to the creation of fixed assets [10, Samarina V., Korchak E., Skufina T., Samarin A., p. 394–396; 11, Krapivin D.S., p. 132], the necessary infrastructure, service complexes, life support systems for labor and so on. One of the resulting indicators of such management is an increase in labor productivity growth rates, even though, with a small population, the Arctic territories of the country make a significant contribution to the gross regional product [12, Skufina T., Baranov S., Samarina V., Korchak E., pp. 69–70]. E.g., with a population of 1.64% of the country's population, the total share of the gross regional product of the Murmansk Oblast, the Yamal-Nenets, Chukotka and Nenets Autonomous Okrugs in the overall gross regional product of the country is more than 5% (2017) ³.

The strategic importance of the Arctic territories of Russia actualizes the need to develop new approaches to the formation of scientific and practical problems of Arctic development [13, Leksin V.N., Porfiryev B.N., p. 515] and the methodology of scientific research for the transformation of the state regulation system for the development of the Arctic zone [14, Andreeva E.N., p. 237]. An important aspect, in this case, is the analysis of the long-term [15, Khoreva O., p. 324] dynamics of the social space of the Arctic territories included in the modern Arctic zone of Russia.

The object of this study is social space, i.e., transformational processes ⁴ in the “*interdisciplinary model of the Arctic zone of Russia*” [16, Lukin Yu.F., p. 59; 17, Peshina E.V., Zakharov A.S., pp. 10–110], the land territories of which are determined by the relevant Decree of the President of the Russian Federation ⁵: Nenets, Yamal-Nenets, and Chukotkiy Autonomous Okrugs, the Murmansk Oblast, as well as the Arctic municipalities of the Republic of Sakha (Yakutia), Arkhangelsk Oblast, the Republic of Karelia, Krasnoyarsk Krai, and the Komi Republic.

The dynamics of the social space of the Arctic territories of Russia in 1950–2017

In the 1950s, in the USSR, the Concept of the development of the North as a single economic and administrative region began to take shape. Its difference from the previous set of views on the development of the Arctic (the 1930s – 1950s) was the scientific substantiation of the particular situation, the uniqueness of the North, where the development of Arctic resources became

³ Raschetnye dannye avtora [The author's estimated data]. Federal'naya sluzhba gosudarstvennoy statistiki [Federal State Statistics Service]. URL: <https://www.gks.ru/> (accessed 12 December 2019).

⁴ Golenkova Z.T., ed. *Sotsial'noe prostranstvo rossiysskikh regionov: monografiya* [The social space of the Russian regions] Moscow, Institute of Sociology of the RAS, 2017. 193 p. (In Russ.)

⁵ Ukaz Prezidenta RF ot 02.05.2014 № 296 (red. ot 13.05.2019) «O sukhoputnykh territoriyakh Arkticheskoy zony Rossiyskoy Federatsii» [Decree of the President of the Russian Federation of May 02, 2014 No. 296 (as amended on May 13, 2019) “On land territories of the Arctic zone of the Russian Federation”]. URL: <https://www.gks.ru/> (accessed 12 December 2019).

the most important condition for the continuous growth of the country's productive forces [18, Kalemeneva E.A., pp. 184–186; 19, Slavin S.V., Dogaev Yu.M., pp. 6–8]. One of the main goals in the sphere of economic development of the country due to the exploitation of the resource base of the Arctic territories is the formation of a permanent population here (Table 1).

In contrast to the pre-war period, when the development of the country's Arctic territories was carried out by the camp method, in the 50s of the last century, the migration movement, due to the intensity of industrial development, was activated, as a result of which a permanent settling Arctic population was formed [20, Mikhaylov E.I.]. E.g., in the Murmansk Oblast, the creation in 1951–1955 of new iron ore, aluminum, and rare-metal industries caused a maximum influx of migrants (migration growth amounted to 103 thousand people).

Table 1

*The population of the Arctic territories of Russia, 1950, 1960, 1970, 1980, 1990, 1995, 2000, 2005, 2010, 2015, 2019, thous. people.*⁶

Territory	1950	1960	1970	1980	1990	1995	2000	2005	2010	2015	2019
Nenets Autonomous Okrug	No data	37	39	47	52	44	41	42	42	43	44
Murmansk Oblast	337	606	799	665	1191	1067	941	857	800	766	748
Yamal-Nenets Autonomous Okrug	No data	64	80	158	489	478	496	515	524	540	541
Chukotka Autonomous Okrug	No data	47	101	133	162	96	62	51	49	51	50

In the years 1955–1985, in the Murmansk Oblast, population density increased from 3.3 people per km² to 7.6 people per km² (the number of towns increased from 6 to 11)⁷. The population of the town of Severodvinsk (the Arkhangelsk Oblast) in 1970 amounted to 144.5 thousand people against 78.6 thousand people in 1959, Zapolyarny town (the Murmansk Oblast) — 22.1 thousand people and 6.2 thousand people accordingly⁸. The largest group of migrants is the population aged 20–24⁹.

A large proportion of the population was concentrated in industrial units (e.g., Kirovsky, Monchegorsky, Olenegorsky, Lovozersky districts of the Murmansk Oblast), where the main enterprises were industrial enterprises (in the Murmansk Oblast — mining enterprises). So, in the 1980s, more than 35% of the industrial production workers of the Kola Arctic were employed at the enterprises of the Kola mining complex¹⁰.

⁶ Federal'naya sluzhba gosudarstvennoy statistiki [Federal Statistics Service]. URL: <https://www.gks.ru/> (accessed 12 December 2019).

⁷ Luzin G.P., ed. *Sotsial'no-ekonomicheskoe razvitie Murmanskoy oblasti v perekhodnyy period: sovremennoe sostoyanie i prognozy* [Socio-economic development of the Murmansk region during the transition period: current status and forecasting]. Apatity, Kola Science Center RAS Publ., 1992, 218 p. (In Russ)

⁸ Federal'naya sluzhba gosudarstvennoy statistiki [Federal Statistics Service]. URL: <https://www.gks.ru/> (accessed 12 December 2019).

⁹ Luzin G.P., ed. *Sotsial'no-ekonomicheskoe razvitie Murmanskoy oblasti v perekhodnyy period: sovremennoe sostoyanie i prognozy* [Socio-economic development of the Murmansk region during the transition period: current status and forecasting]. Apatity, Kola Science Center RAS Publ., 1992, 218 p. (In Russ)

¹⁰ *Ibid.*

Positive in the processes of socio-economic development of the Arctic territories of this period was the tendency to increase the educational level of the population. So, in 1959, for 1,000 people, the employed population of the Murmansk Oblast accounted for 34 people with higher education, in 1989 — 167 people. [21, Skufina T.P., Korchak E.A., Baranov S.V., p. 21].

The discovery of hydrocarbon reserves in the northern territories of Western Siberia in the 60–80s of the 20th century led to the creation of an oil and gas complex and, accordingly, led to the active social development of such territories. So, in the Yamal-Nenets Autonomous District, the population increased from 64 thousand people up to 158 thousand people ¹¹.

In the 1990s, there was a modern network of settlements [22, Kornilov G.E., p. 136–138] of the Asian part of the Arctic territories of Russia (Table 2). In 1984, the city of Muravlenko appeared, the history of which is closely connected with the one established in 1982 to ensure the accelerated commissioning of the Sutorminskneft oil and gas production department in the Sutorminsky and Muravlensky oil fields. In 1986, the city of Gubkinsky grew up; the leading enterprises of the city that produce natural gas are RN — Purneftegaz LLC and separate divisions of the Komsomolsky and Gubkinsky gas fields of Gazprom Dobycha Noyabrsk LLC.

Table 2

The population of industrial towns of the Yamal-Nenets Autonomous Okrug, 1989, 2000, 2008, 2018, thous. people. ¹²

Town	Foundation year	1989	2000	2008	2018
New Urengoy	1975	93.2	89.2	118.4	114.8
Noyabrsk	1975	85.9	96.4	110.4	106.9
Muravlenko	1984	23.1	36.2	37.1	32.4
Gubkinsky	1986	9.7	19.2	22.7	27.9

Among the characteristics of the demographic situation during this period, the main ones were the level of the country's average mortality rate and higher than the average natural growth rate [21, Skufina T.P., Korchak E.A., Baranov S.V., p. 22–23]. The young population structure has determined the lowest mortality rates in the Arctic territories in comparison with the national level. So, in the Yamal-Nenets Autonomous Okrug, the total mortality rate in 1987 was 2.9 ‰, in the Chukotka Autonomous Okrug — 3.1 ‰, in the Nenets Autonomous Okrug — 5.6 ‰, in the Murmansk Oblast — 5.7 ‰ with the national average is 10.5 ‰. The level of natural population growth in 1987 was on average 6.6 ‰ in the country, 10.1 ‰ in the Murmansk Oblast, 14.4 ‰ in the Chukotka Autonomous Okrug, 15.8 ‰ in the Nenets Autonomous Okrug, and Yamal-Nenets Autonomous Okrug — 19.4 ‰ [21, Skufina T.P., Korchak E.A., Baranov S.V., p. 22–23]. One of the most important achievements in the demographic development of the Arctic zone has become a

¹¹ Federal'naya sluzhba gosudarstvennoy statistiki [Federal Statistics Service]. URL: <https://www.gks.ru/> (accessed 12 December 2019).

¹² Compiled by the author. Federal'naya sluzhba gosudarstvennoy statistiki [Federal Statistics Service]. URL: <https://www.gks.ru/> (accessed 12 December 2019).

positive trend in the change in life expectancy. So, in 1979–1989 the average life expectancy of men in the Murmansk Oblast increased by 3.9 years¹³.

The intensity of migration growth in the Arctic zone has mainly influenced by the updated legislation on northern preferences continuously in these years. It established the basic and additional guarantees and compensations to the working population: salary supplements, extra leave, calculation of the increased length of service, which gives the right to receive an old-age pension, and so on. Due to state protectionism in the field of social and labor relations in the North, the average monthly wage in the Arctic territories was 1.8 times higher than the national average. E.g., in 1985, the monthly average wage in the Arctic territories of the Tyumen region was 425 rub. with an average level in the region of 338 rub., in the Krasnoyarsk Krai — 369 rub. and 243 rub., respectively¹⁴.

The change of socialist ideology to the market track of development led to the transfer of Arctic enterprises to self-financing, a reduction in production (Fig. 1), and the scarcity of Arctic local budgets.

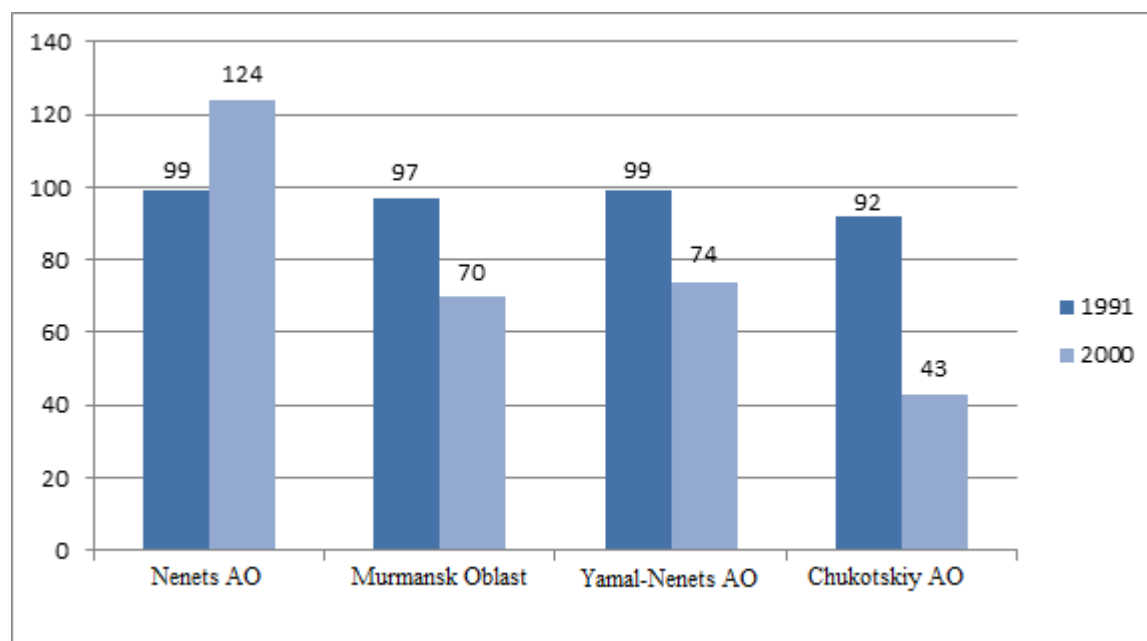


Fig. 1. Indices of industrial production by region, entirely included in the Arctic zone of Russia, 1991, 2000, % (1990 = 100%)

¹⁵

As a result, in the 1990–1999s, relevant for the Arctic territories of Russia has become the problem of stabilization of the population (Table 1). During this period, a tendency toward a decrease in the population was indicated: in the Chukotka Autonomous Okrug, the population decreased by two times, in the Murmansk Oblast and the Nenets Autonomous Okrug — by 0.8 times.

¹³ Luzin G.P., ed. *Sotsial'no-ekonomicheskoe razvitiye Murmanskoy oblasti v perekhodnyy period: sovremennoe sostoyaniye i prognozy* [Socio-economic development of the Murmansk region during the transition period: current status and forecasting]. Apatity, Kola Science Center RAS Publ., 1992, 218 p. (In Russ)

¹⁴ Ibid.

¹⁵ *Aktual'nye problemy Severa Rossii: analiz i rekomendatsii (nauchno-analiticheskiy doklad)* [Actual problems of the North of Russia: analysis and recommendations (scientific and analytical report)]. Apatity, Kola Science Center RAS Publ., 2007. 150 p. (In Russ.)

The population in the promising and most well-organized towns significantly decreased (Table 3). In 1989–2002, the population of Vorkuta decreased by 26.5%, the town of Kirovsk (the Murmansk Oblast) — by 27.3%, the town of Murmansk — by 28.2%.

The trend of natural population decline began to take shape: natural growth (per 1,000 people) in the Chukotka Autonomous Okrug in 1999 was 1.9 ‰ (in 1990 — 10.4 ‰), in the Nenets Autonomous Okrug — 1.8 ‰ (9.7 ‰), in the Murmansk Oblast — -2.5 ‰ (5.5 ‰) [21, Skufina T.P., Korchak E.A., Baranov S.V., p. 27]. First of all, this situation was caused by a decrease in the birth rate (due to a decrease in the level of material well-being and the availability of services in the field of preschool education): during this period, the birth rate in the Arctic territories did not exceed the 50 ‰ level of simple reproduction.

Table 3

*The population of Arctic towns, 1959, 1989, 2002, 2009, 2018, thous. people.*¹⁶

Town	1959	1989	2002	2009	2018
Murmansk	221,9	468,0	336,1	311,2	295,4
Kirovsk	39,0	43,5	31,6	30,1	26,6
Apatity	13,9	88,0	64,4	61,6	55,7
Vorkuta	55,7	115,6	84,9	71,4	58,1
Norilsk	109,4	174,7	134,8	203,9	181,4
Arkhangelsk	256,3	415,9	356,0	348,3	349,7
Salekhard	16,6	32,3	36,8	42,5	49,2
Naryan-Mar	13,2	20,2	18,6	19,4	24,8
Anadyr	5,8	17,1	11,0	11,8	15,6

The problem of an aging population has become more relevant. Against the background of a decrease in the level of state protectionism in the field of social development of the Arctic territories, the demographic burden of the able-bodied population by persons older than able-bodied age increased by 1.5 times (including 2.2 times in the Murmansk Oblast and in the Chukotka Autonomous 5.4 times). In the Yamal-Nenets Autonomous Okrug, the average pension in 1993 amounted to 25.9% of the average monthly wage, which is the primary source of income for the population, in 2000 — 11.1%; in the Murmansk Oblast, 50% and 26.8%, respectively¹⁷. The living of a significant contingent of elderly citizens for the Arctic territories due to the decrease in the level of territorial socio-economic development and the decline in living standards has become economically inexpedient, caused social tension in society as a whole and actualized the need for urgent measures to relocate this category of citizens from Arctic towns.

The mortality rate increased significantly (in the Murmansk Oblast — from 6 ‰ to 10.1 ‰, in the Chukotka Autonomous Okrug — from 3.9 ‰ to 7.1 ‰ [21, Skufina T.P., Korchak E.A., Baranov S.V., p. 28]). The deterioration in the dynamics of fertility and mortality negatively affected

¹⁶ Compiled by the author. Federal'naya sluzhba gosudarstvennoy statistiki [Federal Statistics Service]. URL: <https://www.gks.ru/> (accessed 12 December 2019).

¹⁷ Author's estimated data. Source: Otchet o nauchno-issledovatel'skoy rabote «Sotsial'nye protsessy na Severe: regulirovanie v usloviyakh rynka» [Report on the research work "Social Processes in the North: Regulation in the Market Conditions"] No. 3-98-2006. Apatity. Luzin Institute for Economic Studies RAS, 1999. 72 p. (In Russ)

the average life expectancy: the decrease in life expectancy was a problem in the demographic development of the Arctic territories.

The collapse of the USSR, the unstable economic situation, the decline in production, the increase in differentiation in wages at the enterprises of the budget and non-budget sectors of the economy, the growth of unemployment and a sharp increase in the cost of living led to a large-scale migration outflow of the population. Features of the socio-economic development of the Arctic territories of Russia in 1990–1999, the cyclical development of resource territories and the emergence of depressed territories with damped production, caused by the exhaustion of raw material sources, became. The decline in economic activity caused the emergence of social tension in the Arctic labor markets, a decrease in the level and quality of life of the population. Part-time work has become a “habitual” phenomenon¹⁸: about 15% of the payroll number of employees at the initiative of employers did not work full time. The practice of partially or completely halting production and sending employees on leave without pay has become widespread.

Amid the exhaustion of employment opportunities in the public sector of the economy, the unemployment rate has increased significantly. In the Chukotka Autonomous Region, unemployment during this period increased 4.6 times, in the Murmansk Oblast — 3 times (according to Murmanskstat¹⁹, the level of general unemployment in the region in 2000 amounted to 13.4% compared to 5.6% in 1994, registered — 3.6% and 1.8%, respectively). The increase in the load of the unemployed population for one declared vacancy in the Nenets Autonomous Okrug amounted to 7.9 times, in the Chukotka Autonomous Okrug — 5.8 times²⁰. Such features of the Arctic labor markets were determined by the reproduction of such contradictions as imbalances in the Arctic labor markets and the stagnant long-term nature of unemployment in the processes of demand and supply for labor. E.g., in the Murmansk Oblast at many industrial enterprises since the mid-1990s, about 40% of highly qualified specialists held positions that did not require such an educational level. In turn, such contradictions were caused by the deformation of the state of territorial economic complexes (mass privatization and disruption of economic ties) and the mono-structural nature of Arctic settlements (industrial enterprises were the actors in unemployment). In the territorial labor markets, there are tendencies towards its stable segmentation — professional risk groups with high unemployment have been identified. So, in the Murmansk Oblast during this period, the number of people employed in construction decreased almost four times (the state of

¹⁸ Otchet o nauchno-issledovatel'skoy rabote «Sotsial'nye protsessy na Severe: regulirovanie v usloviyakh rynka» [Report on the research work “Social Processes in the North: Regulation in the Market Conditions”] No. 3-98-2006. Apatity. Luzin Institute for Economic Studies RAS Publ., 1999. 72 p. (In Russ)

¹⁹ Territorial'nyy organ Federal'noy sluzhby gosudarstvennoy statistiki po Murmanskoy oblasti [Territorial authority of the Federal State Statistics Service for the Murmansk Oblast]. URL: <https://murmanskstat.gks.ru/> (accessed 12 December 2019).

²⁰ Estimated data. Federal'naya sluzhba gosudarstvennoy statistiki [Federal Statistics Service]. URL: <https://www.gks.ru/> (accessed 12 December 2019).

the construction industry is a kind of indicator of the situation in the economic complex: economic recovery begins with an increase in orders for construction and installation works)²¹.

Significantly the level of differentiation of the population by income increased. E.g., in the Murmansk Oblast, the salary of public sector employees in 1996 was two times lower than the average salary of industrial workers; in the territorial aspect, the level of wage differentiation reached 2.5 times. Increased wages due to northern allowances as a major incentive for attracting able-bodied people to the Arctic have lost their significance. The problem of poverty of the population became urgent: in 1999, in the Chukotka Autonomous Region, the share of the population with average per capita cash income in the total population was 55.7%, in the Nenets Autonomous Okrug — 50.2%, in the Murmansk Oblast — 21, 3% (according to Murmanskstat²², the poverty level in the region in 1994 was 19.1%; fund ratio — 7.4 versus 10.9% in 1999), in the Yamal-Nenets Autonomous Okrug — 13.3%²³. There has been a trend towards an increase in the level of crime (e.g., in 1991–1999 in the Murmansk Oblast, the number of registered crimes per 100 thousand people increased 1.6 times²⁴). In practice, “awareness” of the hopelessness of living appeared: the young citizens of working and reproductive age who were born here began to leave the Arctic massively. In particular, according to sociological research²⁵, in the Murmansk Oblast in 1997, the majority of the population was oriented toward moving outside the region (according to Murmanskstat²⁶, the migration increase in 1989 was 0.4 ‰; in 2000, the population decline was -16.5 ‰).

The next stage in the development of the modern Arctic zone of Russia (2000–2008) was due to the need to form internal factors of the economic development of such territories and achieve, on this basis, their sustainable development. This stage was marked by the development of the Concept of state support for the economic and social development of the North. The concept, in particular, provided for the creation of conditions for the self-development of the Arctic territories by increasing the role and competitiveness of local town-forming enterprises, as well as

²¹ Otchet o nauchno-issledovatel'skoy rabote «Sotsial'nye protsessy na Severe: regulirovanie v usloviyakh rynka» [Report on the research work “Social Processes in the North: Regulation in the Market Conditions”] No. 3-98-2006. Apatity. Luzin Institute for Economic Studies RAS Publ., 1999. 72 p. (In Russ)

²² Territorial'nyy organ Federal'noy sluzhby gosudarstvennoy statistiki po Murmanskoy oblasti [Territorial authority of the Federal State Statistics Service for the Murmansk Oblast]. URL: <https://murmanskstat.gks.ru/> (accessed 12 December 2019).

²³ Federal'naya sluzhba gosudarstvennoy statistiki [Federal Statistics Service]. URL: <https://www.gks.ru/> (accessed 12 December 2019).

²⁴ Territorial'nyy organ Federal'noy sluzhby gosudarstvennoy statistiki po Murmanskoy oblasti [Territorial authority of the Federal State Statistics Service for the Murmansk Oblast]. URL: <https://murmanskstat.gks.ru/> (accessed 12 December 2019).

²⁵ Otchet o nauchno-issledovatel'skoy rabote «Sotsial'nye protsessy na Severe: regulirovanie v usloviyakh rynka» [Report on the research work “Social Processes in the North: Regulation in the Market Conditions”] No. 3-98-2006. Apatity. Luzin Institute for Economic Studies RAS Publ., 1999. 72 p. (In Russ)

²⁶ Territorial'nyy organ Federal'noy sluzhby gosudarstvennoy statistiki po Murmanskoy oblasti [Territorial authority of the Federal State Statistics Service for the Murmansk Oblast]. URL: <https://murmanskstat.gks.ru/> (accessed 12 December 2019).

rationalizing the structure of employment and population due to the state impact on migration flows.

The implementation of the Concept was planned in three stages²⁷:

- 1) 2000-2003 — stabilization of socio-economic development and the transition to sustainable economic growth, stabilization of real incomes and the formation of a trend towards a decrease in unemployment,
- 2) 2004–2010 — steady economic growth, stabilization of the population, a consistent increase in the level and quality of life, lower unemployment,
- 3) 2011–2015 — sustainable balanced socio-economic development, determined by the needs and capabilities of the national economy.

Table 4

*The leading indicators of state policy in the regions entirely included in the Arctic zone of Russia, 2000, 2003, 2010, 2015.*²⁸

Territory	Average per capita cash income of the population, % of the average level in the Russian Federation				Unemployment			
	2000	2003	2010	2015	2000	2003	2010	2015
Nenets Autonomous Okrug	150	275	269	233	11,0	8,7	6,6	7,9
Murmansk Oblast	156	138	128	121	12,8	10,2	8,9	7,8
Yamal-Nenets Autonomous Okrug	331	309	223	219	8,6	5,5	4,4	3,6
Chukotka Autonomous Okrug	207	264	198	202	10,3	4,8	4,1	4,0

Analysis of indicators of social development of the Arctic zone of Russia in 2000–2015 (Table 4) allowed us to draw the following conclusions about the effectiveness of the implementation of the Concept of state support for the economic and social development of the Arctic territories.

At the first stage of implementation of the Concept, a tendency towards a decrease in the unemployment rate was formed; however, in 2000–2003. there was a significant decrease in average per capita cash incomes of the population (in comparison with the all-Russian level). The results of the second stage of the implementation of the Concept were a decrease in the population, the preservation of unemployment reduction trends [23, Korchak A.D., Korchak E.A., pp. 68–69] and per capita cash income of the population.

In general, an analysis of the implementation of the Concept during the period indicated in this document (2000–2015) indicates the declarativeness and inefficiency of the state policy in the field of socio-economic development of the Arctic territories. The Arctic zone of Russia has not reached a steady pace of balanced socio-economic development, as evidenced by the steady decline in the population (in 2000–2015 — by 8.6%), migration decline [24, Korchak E.A., Gushchina I.A., pp. 78–81] and low living standards.

²⁷ Postanovlenie Pravitel'stva RF ot 07.03.2000 g. №198 «O Kontseptsii gosudarstvennoy podderzhki ekonomicheskogo i sotsial'nogo razvitiya rayonov Severa» [Decree of the Government of the Russian Federation of March 7, 2000 No. 198 "On the Concept of State Support for the Economic and Social Development of the North"]. URL: <http://www.consultant.ru/> (accessed 12 December 2019).

²⁸ Federal'naya sluzhba gosudarstvennoy statistiki [Federal Statistics Service]. URL: <https://www.gks.ru/> (accessed 12 December 2019).

The current stage of development of the Arctic zone of Russia (from 2008 to the present) is due to the strategic planning of the socio-economic development of the Arctic zone and ensuring the national security of Russia. The conceptual foundations of the current stage are the Decree of the President of the Russian Federation “On Land Territories of the Arctic Zone of the Russian Federation” of 05/02/2014, the Strategy for the Development of the Arctic Zone of the Russian Federation and National Security for the Period Until 2020, Government Decree RF “On approval of the state program of the Russian Federation” Socio-economic development of the Arctic zone of the Russian Federation for the period until 2020 ” of April 21, 2014

The resulting indicators of the current stage of development of the Arctic zone of Russia in the social sphere denote the coefficient of natural population growth (per 1000 people), regional decile coefficient (income ratio of 10% of the richest and 10% of the most reduced population of the Arctic regions), the share of the Arctic population, having constant access to adequate sanitary and epidemiological standards for drinking supplies. An analysis of such indicators (Table 5) indicates positive changes in the social development of the Arctic zone of Russia in 2008–2017. In particular, during the period under review, the rate of natural population decline decreased (in the Nenets and Chukotka Autonomous Okrugs, a natural population growth was recorded); the degree of social stratification of the population has significantly decreased (in the Nenets Autonomous Okrug by 1.5 times); the level of home improvement has increased.

Table 5
*Indicators characterizing the social development of regions entirely included in the Arctic zone of Russia, 2008, 2017.*²⁹

Territory	The coefficient of natural population growth per 1 thousand people, ‰		Ratio of funds, times		The proportion of total living space equipped with water supply, ‰	
	2008	2017	2008	2017	2008	2017
Nenets Autonomous Okrug	3.6	6.6	23.8	15.7	36.1	64.9
Murmansk Oblast	-1.3	-0.8	13.6	10.5	97.7	95.8
Yamal-Nenets Autonomous Okrug	9.1	9.1	19.9	16.8	95.8	96.3
Chukotka Autonomous Okrug	2.7	3.7	13.6	14.1	90.6	91.7

However, in our opinion, such indicators do not provide a holistic picture of the social development of the Arctic zone of Russia. In particular, a study of the social development of the Arctic zone of Russia in terms of the degree of social stratification of the population by the level of income earned necessitates a more detailed analysis of living standards. It is because, in rich oil and gas producing regions, differentiation of population incomes is produced by imbalances in the sectoral structure of territorial economies. The objective reasons for such imbalances are associated, firstly, with differences in the level of gross regional product per capita and the structure of production, especially in the specific gravity of raw materials industries. Secondly, it is due to the

²⁹ Federal'naya sluzhba gosudarstvennoy statistiki [Federal Statistics Service]. URL: <https://www.gks.ru/> (accessed 12 December 2019).

presence of certain least competitive manufacturing industries, as well as low-paying sectors of the public sector. E.g., in the Yamal-Nenets Autonomous Okrug, the average monthly salary of workers in mining enterprises is 2.2 times higher than the average salary of workers in educational institutions (the number of employees in such areas is 19.7% and 7.2% respectively of the total number of employees)³⁰. Moreover, the key, in our opinion, indicators that testify to the effectiveness of state policy in the field of social development of the Arctic zone of Russia are indicators of the ratio of population incomes to the minimum subsistence level, unemployment rate, and poverty level. An analysis of such indicators (Table 6) indicates a low degree of effectiveness of state policy in the field of social development of the Arctic zone of Russia.

Table 6

*Indicators of the state policy effectiveness in the field of social development of the Arctic regions entirely included in the Arctic zone of Russia, 2008, 2017*³¹

Territory	Unemployment, %		The ratio of the average monthly monetary income of the population with the value of the subsistence minimum, times		Poverty, %	
	2008	2017	2008	2017	2008	2017
Nenets Autonomous Okrug	7.7	8.0	5.23	3.60	5.6	11.4
Murmansk Oblast	7.0	7.0	3.16	3.19	13.8	12.6
Yamal-Nenets Autonomous Okrug	5.7	3.2	5.99	4.70	6.2	6.5
Chukotka Autonomous Okrug	4.7	2.9	3.52	4.42	12.0	9.0

In 2008–2017 in the regions under consideration, the standard of living of the population decreased: the ratio of average per capita income to the cost of living of the able-bodied population in the Nenets Autonomous Okrug decreased by 1.4 times, in the Yamalo-Nenets Autonomous Okrug — by 1.3 times. The share of the population with average per capita cash income in the Nenets Autonomous Okrug doubled.

The situation with living standards is pressed by unemployment, which exceeds the average for Russia. In 2017, the unemployment rate in the Nenets Autonomous Okrug was 8%, in the Murmansk Oblast — 7%, with an average Russian level of 5.2%. On average, the unemployment rate in 2017 in the regions under review amounted to 6.4%. Due to the specific features (the functional specifics of the Arctic settlements), a significant territorial differentiation of unemployment remains. Thus, the labor market of the Yamal-Nenets Autonomous Okrug is characterized by a structural territorial imbalance of supply and demand. Against the backdrop of the low labor force in rural areas, the majority of jobs are represented in urban industrial settlements of the okrug: the registered unemployment rate in the Shuryshkarsky municipal district (3.2%) is 3 times the

³⁰ Author's estimated data. Source: Otchet o nauchno-issledovatel'skoy rabote «Sotsial'nye protsessy na Severe: regulirovanie v usloviyakh rynka» [Report on the research work "Social Processes in the North: Regulation in the Market Conditions"] No. 3-98-2006. Apatity. Luzin Institute for Economic Studies RAS Publ., 1999. 72p. (In Russ).

³¹ Federal'naya sluzhba gosudarstvennoy statistiki [Federal Statistics Service]. URL: <https://www.gks.ru/> (accessed 12 December 2019).

value of such an indicator in the Tazovsky district (0.1%)³². With the average registered unemployment rate in the Republic of Karelia at 1.9% (2017), in the Loukhsky district, it is 4.9%, Belomorsky — 4.6%, Kemsy — 3.6%³³. A critical situation has developed in the labor markets of Al- laikhovsky and Bulunsky uluses of the Republic of Sakha (Yakutia)³⁴: among the specifics of employment of the population of the first are severe working conditions and low wages of reindeer herders, and the second is a high level of registered unemployment (15.6%).

Conclusion

For Russia, the path to the Arctic is objective and inevitable along with the most important factors of geopolitical and transport significance, the leading social and economic prerequisite for the development of the Arctic zone is natural resources. The main goal of the state has been the accelerated development of the Arctic natural. It is precisely on large-scale extraction of resources that labor and capital are directed here. In this model of industrial development, accelerated industrial development of resources consumed outside the Arctic territories is in the foreground. In contrast, the problems of social development are relegated to the background. Undoubtedly, today there is an urgent need to formulate new approaches in developing the scientific and practical issues of the development of the Arctic zone of Russia and the methodology of scientific research to transform the system of state regulation of the development of the Arctic territories. The identification of dynamics, as well as the quantitative assessment of losses and achievements of the social space of the Arctic zone of Russia, are the most important aspects of the transformation of the system of Arctic public administration.

Analysis of the social development of the modern Arctic territories of Russia in 1950–2017 showed that transformations in the long-term dynamics of the social space of the Arctic territories of Russia were determined by the intensity of their industrial development, the scale of state support, and the long-term interests of the national economy.

The first stage of the long-term dynamics of the social space of the Arctic territories of Russia was associated with an increase in their economic significance in the national economic complex of the USSR. The permanent surviving Arctic population in this period was formed due to the migration inflow, the legislation on northern guarantees and compensations played an important role in its focus. The peak population of the Arctic territories of the USSR occurred in 1989–1990. Among the characteristics of the demographic situation during this period, the mortality rate fell below the national average, and the average growth rate was above the average. The industrial

³² Interaktivnyy portal sluzhby zanyatosti naseleniya Yamalo-Nenetskogo avtonomnogo okruga [Interactive portal of the employment service of the Yamal-Nenets Autonomous Okrug]. URL: <https://rabota.yanao.ru/> (accessed 12 December 2019).

³³ Interaktivnyy portal Upravleniya truda i zanyatosti Respubliki Kareliya [Interactive portal of the employment service of the Republic of Karelia]. URL: <https://mintrud.karelia.ru/> (accessed 12 December 2019).

³⁴ Interaktivnyy portal Upravleniya truda i zanyatosti Respubliki Sakha (Yakutiya) [Interactive portal of the Office of Labor and Employment of the Republic of Sakha (Yakutia)]. URL: <https://zan.sakha.gov.ru/> (accessed 12 December 2019).

nature of development predetermined the predominance of urban forms of settlement in the Arctic territories of the country. The maximum was the number of educated urban settlements, most of which were settlements with a population of up to 5 thousand people.

The second stage of the long-term dynamics of the social space of the Arctic territories of Russia began with the crisis caused by the transition of the Soviet planned economy to market conditions, which produced a sharp reduction in economic activity and actualized the problem of reducing the population of the Arctic territories. The trends in population decline during this period were identified due to large-scale migration outflows, the mortality rate of the population increased significantly, and a trend of natural population decline began to take shape. It was actualized the problems of unemployment and poverty. There has been a trend towards an increase in crime.

The third stage of the long-term dynamics of the social space of the Arctic zone of Russia was associated with the need to form internal factors of the economic development of the Arctic territories and achieve, on this basis, their sustainable development. The main interrelated goals of the state policy of Russia in the Arctic in 2000–2008. They began to create conditions for the self-development of the Arctic territories through the revitalization of local town-forming enterprises, and the rationalization of the employment structure and population due to the state impact on migration flows. However, the set goals were not achieved: the Arctic territories did not reach a steady pace of socio-economic development, the trends in population decline, and falling living standards continued.

The problems of poverty and unemployment, which testify to the low degree of effectiveness of state policy in the field of social development of the Arctic territories of Russia, remain relevant for the current stage of social development of the Arctic zone of Russia. In 2008–2017 in the Arctic zone of Russia, the standard of living of the population continued to decline, the unemployment problem remained relevant, the phenomenon of which with respect to the Arctic labor markets is generated by the functional specificity of regional economic complexes and destructive, determined by crisis phenomena at the national and global levels of economic development, processes in their dynamics.

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