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Demographic Situation and Its Perspectives in the Russian Far East: A Case of Chukotka

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DEMOGRAPHIC SITUATION AND ITS PERSPECTIVES IN THE RUSSIAN FAR EAST: A CASE OF CHUKOTKA

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1. INTRODUCTION

The purposes of the present study are, first of all, a general review of the population migration patterns in the Far East region of Russia following the demise of the Soviet Union; and secondly, a study of the situation that emerged in the developing regions as a result of the state policy of the Soviet period, using the example of the demographic trends in the Chukotka Autonomous Okrug as one of the most distal Russian territories with respect to the center of Russia.

To date, several studies have been conducted on inter-regional migration in Russia; by the the author (*Kumo, 1997, 2003*) a comparative analysis of migration in the post-Soviet Russia was conducted and major changes taking place in the migration patterns were considered in the specified periods. Yu. Andrienko and S. Guriev (*Andrienko and Guriev, 2002*) performed a comparative analysis of inter-regional migration based on the gravity model and showed that the adoption of the migration decision by the population depended on the regional-economic variables. The results of the above-mentioned studies demonstrate that traditional means of analyzing migration patterns can be applied to Russia, which went through the change in the state system, and the authors conclude that migration flows are largely dependent on economic reasons.

Although broadly supporting these statements, we must acknowledge that previous studies considered Russia as a whole. For instance, the studies that cited economic factors as the cause of migrant inflow to some region or unfavorable natural conditions as the cause of out-migration of population in a certain region (*Kumo, 2007*) had no purpose of analyzing a separate territory. It is impossible to imagine what goes on in a specific territory based on these studies and the peculiarities of each specific region require additional examination. These very tasks were the main target of the given work. The detailed analysis of migration trends in the Chukotka Autonomous Okrug – the region with the most dramatic reduction in population in the post-Soviet period – dramatically exemplifies the results of the state policy for regional development.

This paper is built in the following manner. The second section reviews the policy of regional development during the Soviet period; whereupon the main tendencies of inter-regional migration flows in Russia are determined from the 1990s to the 2000s — and their main differences are set apart in comparison with the Soviet period in section 3. Section 4 describes the migration flows in the Chukotka Autonomous Okrug as a whole, while the fifth section traces the processes of weakening and full closing of each separate populated locality. Although the sharp decline in population in the Chukotka Autonomous Okrug was often mentioned in various materials, few specific research has been conducted with the main aim of studying this problem.

As is well known, most of the USSR population lived in the European part of the country. At the same time, managing new territories was conducted in a planned manner toward Siberian regions, despite being situated far from large European markets. Presumably, these were attempts to determine an effective return in the policy ignoring economic principles. The resulting “return“ of such state policy of regional management is shown by the present study.

2. GEOGRAPHICAL DISTRIBUTION OF RESOURCES AND MARKETS IN THE SOVIET UNION

2.1. REGIONAL DEVELOPMENT POLICY IN THE USSR

One of the apparent features of the Soviet Union was the clear inter-regional difference in various aspects. For instance, in 1980, the European part of Russia (to the west of the Ural mountains), though occupying only a quarter of its territory, produced more than 2/3 of Soviet industrial products (according to the official Rosstat data, *Rossiiskii statisticheskii ezhegodnik*). Moreover, despite the fact that the growth rate of production and the volumes of raw material production for separate regions varied slightly from year to year, the main tendency remained more or less unchanged throughout the Soviet period.

As a whole, the western part of the federation is more developed than the eastern part and its population density is far higher. Nevertheless, it is the eastern, more sparsely populated regions of the country (Siberia and the Far East) in particular which are rich in oil, gas, tin and other natural resources, which were the main cause of irregular distribution of resources, capital and labor with which the central government of the USSR had to contend. Moreover, the same problem remains in the east of Russia where

the lion's share of resources emerges in its least populated area — the so-called Far-North region, including the High Arctic Zone. Traditionally, this is the most sparsely populated area of the country, due to severe climatic conditions, making it difficult to retain manpower and keeping the price of regional development particularly high. In accordance with studies of E. Kapustin and N. Kuznetsova (*Kapustin and Kuznetsova, 1972*) the cost of living for one worker in the Sakhalin Oblast, which is rich in oil resources, was almost twice that of one worker in Central Asia and to justify the expenditure on employment and accommodation the state applied a corresponding allowance to workers' wages. Nevertheless, the depletion in oil and coal resources in central (including Moscow) and North-Western (including nowadays St. Petersburg) regions of Russia caused the state to develop deposit fields in the Northern and the Far Eastern territories. For this very reason, starting with the 1960s, yields of Siberian coal and oil started rocketing.

2.2. CHANGES IN REGIONAL DEVELOPMENT POLICIES

The planned economy, naturally, presupposes planning of decisions based on production facility arrangements. This was described in many studies, but generalized overall in the work of Yu. Saushkin, I. Nikol'sky and V. Korovitsyn (*Saushkin, Nikol'sky and Korovitsyn, 1967*). Such arrangement was performed in line with the following criteria: 1) evenness of production distribution; 2) industrial location in areas of raw material production and markets; 3) socialization of production = centralization; 4) spatial combination of production enterprises; 5) territorial specialization of production.

Whether or not this policy was effective remains to be discussed from an economy perspective. Accordingly, the production specialization of regions influenced the extension of transportation networks. Certainly, for this country and its huge territory, although long transportation routes are inevitably problematic, in this case, intensive regional specialization exacerbated the situation.

The Soviet government focused on this problem quite early and as early as after the Second World War, aimed to produce and consume products in Siberia, far from the European part of the country, to ease the extensive transportation burden. To attract and retain the workforce in the mineral resource production areas, meanwhile, a policy of regional wage increment and consumer privileges was employed (*Mar'anskiy, 1969*). This was the case of Siberia, Far East and the regions of the so-called Far-North. These politics continued in the 1960s; having become the determining principle for the even distribution of production throughout the regions.

Nevertheless, securing the workforce in territories developed “from scratch” remained quite difficult and the continuously used regional allowances and privileges could not fully compensate for the substandard infrastructure. Moreover, the process of developing new lands under severe natural conditions remained quite expensive. Under these circumstances, the trend whereby the growth of infrastructure was ignored and workers were temporarily attracted only to earn high wages intensified (*Milovanov, 1994*).

Initially, the USSR policy of regional development had the aim of mastering Central Asia and Siberia on the principle of even production distribution. Nevertheless, gradually based on effectiveness considerations the policy began to lean toward developing the mineral resources of the Urals and Siberia with more intensive use of the already populated central economic region, centered in Moscow.

3. MIGRATION FLOWS IN TRANSITIONAL PERIOD IN RUSSIA

The decay of the USSR triggered large-scale changes, not only of the economic system, but also in the structure of migration flows inside the country. Many studies have been dedicated to this topic (*Kumo, 1997, 2003, 2007; Andrienko and Guriev, 2002*), the main results will be explained below.

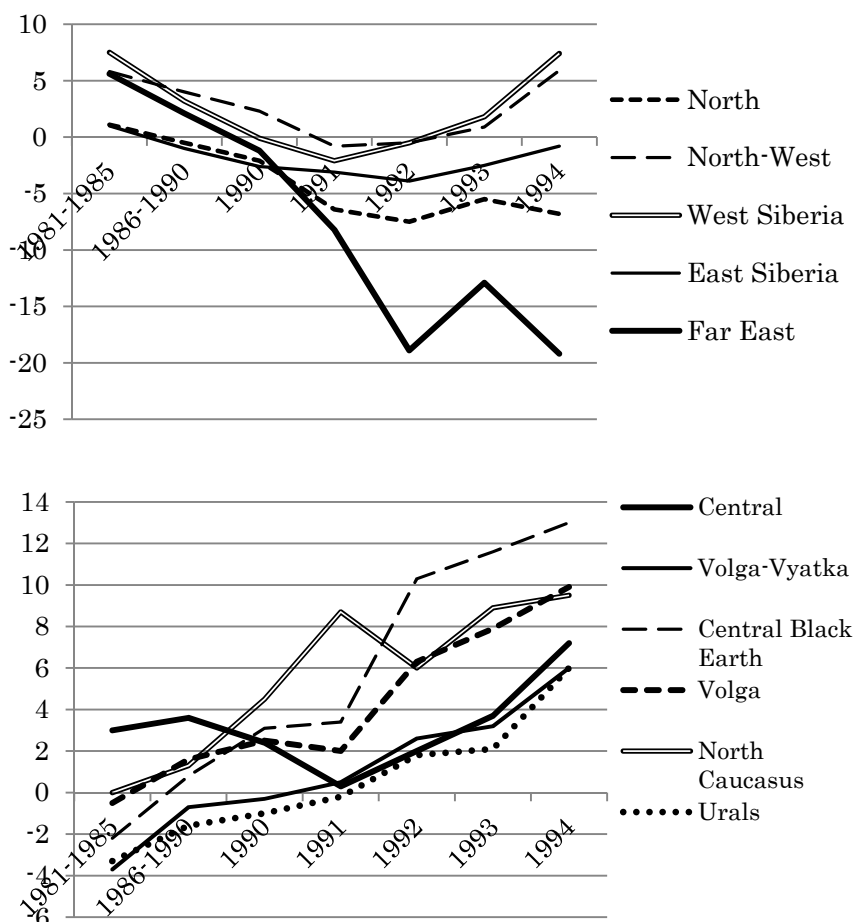
3.1. MIGRATION FLOWS AMONG RUSSIAN REGIONS

When comparing the inter-regional migration flows of the former USSR and the post-Soviet Russia, the following changes vividly emerged: 1) large-scale out-migration of the population from the Far North (from areas of the Polar Region); 2) increasing population in-migration toward regions with developed industries and a warm and favorable climate for agriculture.

Starting since the 1970s — the era of quietness from large-scale regional developments — and up to the end of the 1980s, a transition policy of regional development strategy emerged toward a policy of enriching already accumulated agglomeration (*Kumo, 2003*). Though the reasons for the Far North development, the concentration of raw materials, remained valid, work to create new industrial regions stopped; workers were accommodated in barracks and their labor was used only seasonally (*Milovanov, 1994*). Such method was used to attract the inflow of labor to the regions of Siberia, the Far East and Far North of Russia up to the end of the 1980s (Figure 1).

Nevertheless, the decay of the USSR turned the situation upside down. From 1991, a sharp outflow of migrants emerged from the cold regions of Siberia and the Far East to what were already well-populated territories (Figure 1).

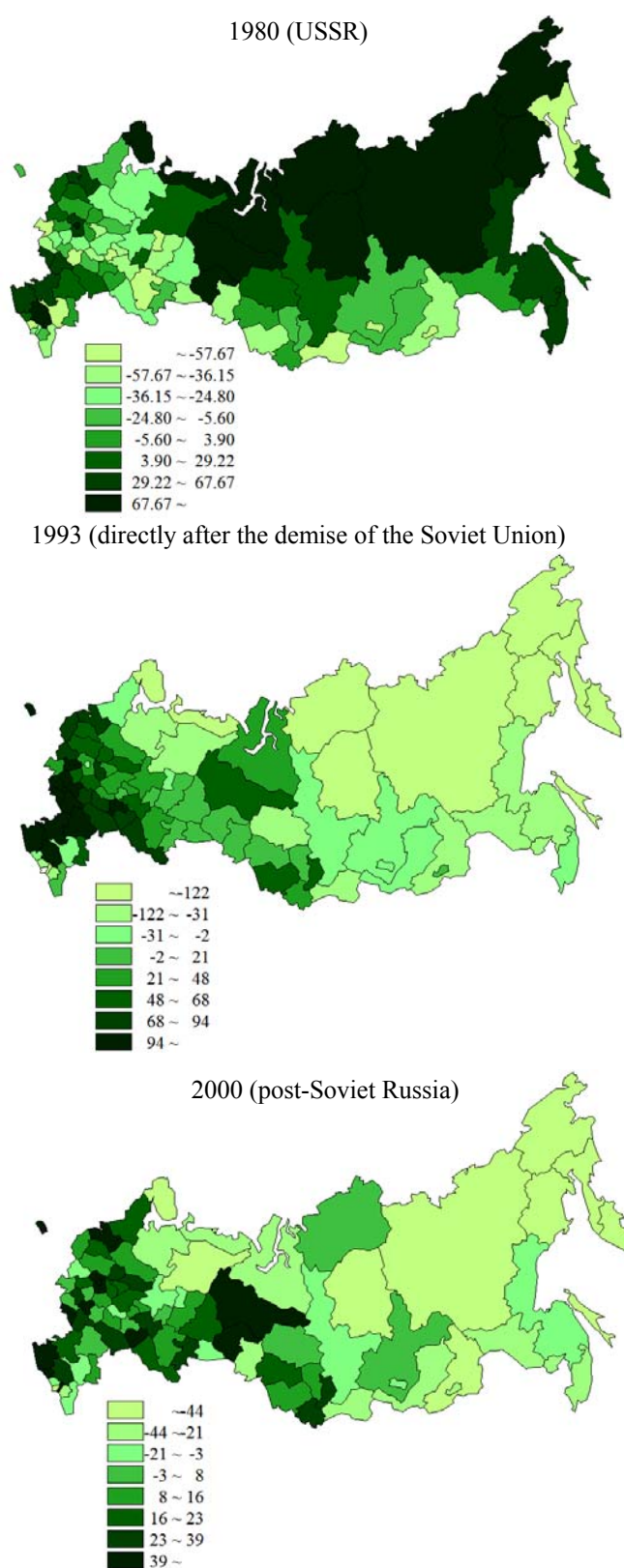
Figure 1. Net Migration Rate
before and after the Demise of the Soviet Union since 1980 to 1994



Source: Prepared by the author by *Rossiiskii statisticheskii edzegodnik*, various years.

To better understand this situation, let us consider the net migration rate by more detailed regional data. In the early 1990s, many regions of Siberia and the Far East saw a multiple-percent exodus (Figure 2). These changes are particularly demonstrative when comparing the net migration rates for 2000 with the Soviet period of 1980. The migration flows did actually revolve: if during the Soviet period there was active colonization of Siberia and the Far East, then after the demise of the Soviet Union, an active exodus was observed into the European part of the country. Moreover, since the year 2000 this tendency has continued to increase.

Figure 2. Net Migration Rate by Region.



Source: Prepared by the author by Regiony Rossii, various years. The standard of regional classification is 12.5%tile.

3.2. POPULATION OF THE RUSSIAN FAR EAST

Sharp exodus was observed in the Far East region of Russia. Though the country's overall population is declining due to the mortality rate exceeding the birth rate (*Karabchuk, Kumo and Selezneva 2014*), migration inflow is observed nationwide. In the Far East, with its young age structure, although the level of population decrease is lower than the overall figure in Russia, the outward migration flow considerably exceeds the national level, resulting in a sharp decrease in population in the region (Tables 1, 2). In 1991 directly after the demise of the Soviet Union, the population of the Far East region comprised more than 8 million people, but had declined to 6,210 thousands by 2015, namely, by more than 24%.

Table 1. Population of the Russian Far East at the beginning of each year (in 10 thousands)

	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015
Russia	14816	14830	14794	14714	14633	14482	14496	14324	14275	14283	14306	14367	14397
Far East	807	790	763	743	726	711	668	646	637	632	627	623	621
Sakha republic	112	107	104	103	100	99	95	95	96	96	96	96	96
Primorye	230	230	227	223	219	216	207	201	198	197	195	194	193
Khabarovsk	162	162	159	155	152	150	143	138	136	135	134	134	134
Amur	107	106	104	102	101	99	90	86	84	84	82	81	81
Kamchatka	48	46	42	41	40	38	36	34	33	32	32	32	32
Magadan	39	33	28	26	25	23	18	17	16	16	16	15	15
Sakhalin	72	71	67	63	61	59	55	52	51	50	50	49	49
Jewish	22	22	21	21	20	20	19	18	18	18	18	17	17
Chukotka	16	12	10	9	8	8	5	5	5	5	5	5	5

Source: Prepared by the author by *Regiony Rossii*, Moscow, various years.

Table 2. Net Migration Flow in the Russian Far East (per 10 thou. people)

	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013
Far East	-82	-129	-136	-94	-97	-97	-75	-80	-36	-27	-28	-53
Sakha republic	-255	-189	-179	-168	-154	-100	-34	-28	-34	-66	-102	-96
Primorye	8	-31	-42	-49	-53	-117	-40	-51	-23	-2	6	-38
Khabarovsk	-18	-52	-69	-34	-57	-39	-71	-93	-10	-3	14	-37
Amur	-38	-38	-11	-56	-61	-84	-106	-100	-55	-33	-74	-22
Kamchatka	-75	-364	-276	-172	-166	-108	-195	-199	-89	-63	-51	-71
Magadan	-495	-585	-742	-212	-276	-332	-195	-180	-153	-108	-118	-142
Sakhalin	-13	-185	-301	-185	-124	-91	-97	-104	-56	-48	-4	-44
Jewish	-5	-65	-67	-88	-146	-29	-74	-159	-18	-20	-95	-125
Chukotka	-596	-919	-916	-525	-581	-398	-251	73	-56	-196	102	-7

Source: Prepared by the author by *Regiony Rossii*, various years.

As was noted above, the Soviet Union could retain its workforce in the economically poorly developed Far East region thanks to politics which involved stimulating the population with high wages and consumer privileges. However,

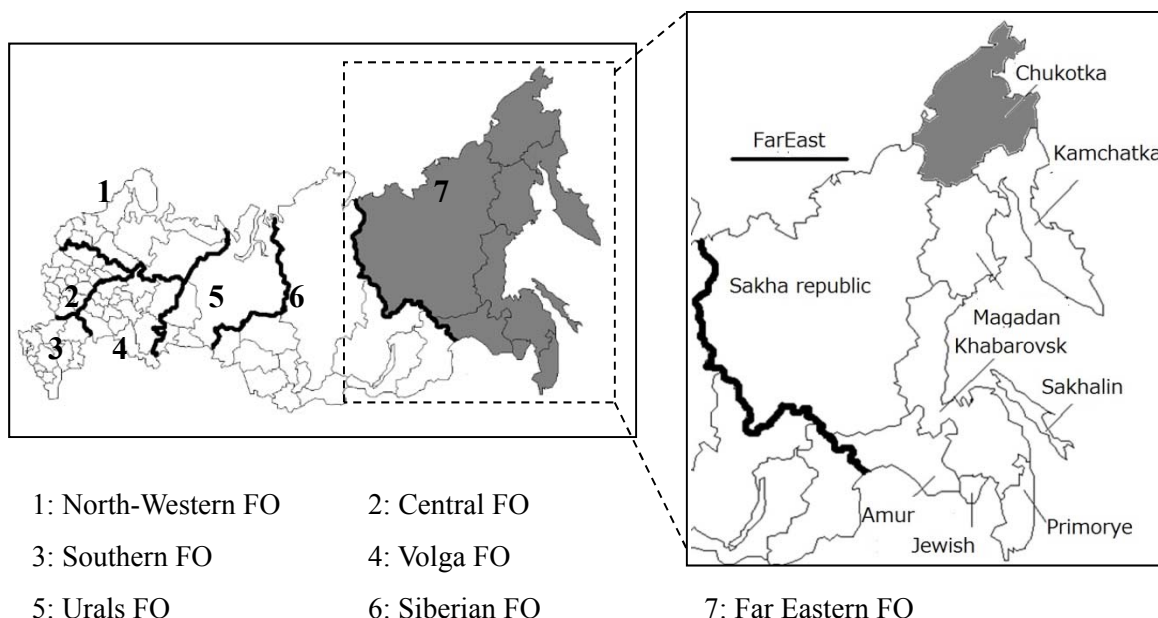
everything changed after the demise of the Soviet Union. Guaranteed state allowances to wages were considerably reduced, which prompted a decline in appealing consumer privileges. The delivery of consumer goods from the European portion of the country, as was noted above, clashed with rocketing transportation expenses by railway, with prices starting to exceed the purchasing capacity of the population and triggering a drastic drop in common living standards. As regards the production sphere, meanwhile, the increase in transport tariffs meant a fall in demand for Far Eastern products in the European part of Russia. The reduction of the production level resulted in the drop of income and overall pauperization of enterprises. The Far East of Russia became the most loss-making region of the country. The life of Far Eastern regions directly depended on the delivery of oil and gas from the Western Siberia, but the sharp increase in expenses for their transportation resulted in the increase of price of energy carriers and even such large cities of the region as Vladivostok (Primorski Krai) and Khabarovsk (Khabarovsk Krai) in winter time were hard up for fuel. Although under the stress of regional policy continuing since the Soviet times, the issue of improving Far Eastern infrastructure was neglected and the gas lines, water supply lines and other important household utilities in the Far East territory were considerably below the average Russian level (*Vorob'yev, 1977*). Under such circumstances, the large-scale exodus from the region may be considered a relatively logical consequence of the regional policy conducted during the Soviet era (*Kumo, 2003, 2007*).

With this in mind, the population reduced by one third in the Chukotka Autonomous Okrug bordering with the High Arctic Zone, a decade or so after the demise of the Soviet Union (from 1991 to 2002) and in the Magadan Oblast also suffering from severe climate conditions during the same period the population declined by more than half. It should be noted that for the Chukotka Autonomous Okrug, where neither civil, nor interethnic disturbances are ever observed, the nearly 10-percent exodus per year is quite rare. It could be compared with a crisis putting the overall survivability of the given territory into question. Regional information in peripheral areas is rarely discussed in comparison with Moscow and other economically developed territories. Evidently however, the border regions are finding it a real challenge to face up to the consequences of the legacy of the Soviet regional policy. In the next section, the author will discuss the situation of the Chukotka Autonomous Okrug, which demonstrates the most dramatic reduction in population out of all Far Eastern regions of Russia.

4. DEMOGRAPHIC TRENDS IN CHUKOTKA

The Chukotka Autonomous Okrug (Chukotka) is situated in the east end of Russia, directly next to Alaska (Figure 3) and covers more than 720,000 km² (Source: *Regiony Rossii*, 2014, p. 629), which is almost twice the area of Japan (over 370,000 km²), but out of the 85 administrative regions of the Russian state (the so-called “Federal Subjects“, including the Crimea Republic and the city of Sevastopol joined to Russia in 2014 in the course of conflict with the Ukraine), it is precisely the area which is the least populated region: as of 1 January, 2015 its population numbered less than 50,600 (Source: Rosstat, *Chislennost nalseleniya v Rossiskoi Federatsii po munitsipalnam obrazovaniem*, 2015).

Figure 3. Federal Okrugs (FO) of Russia; Far Eastern region; The Chukotka Autonomous Okrug



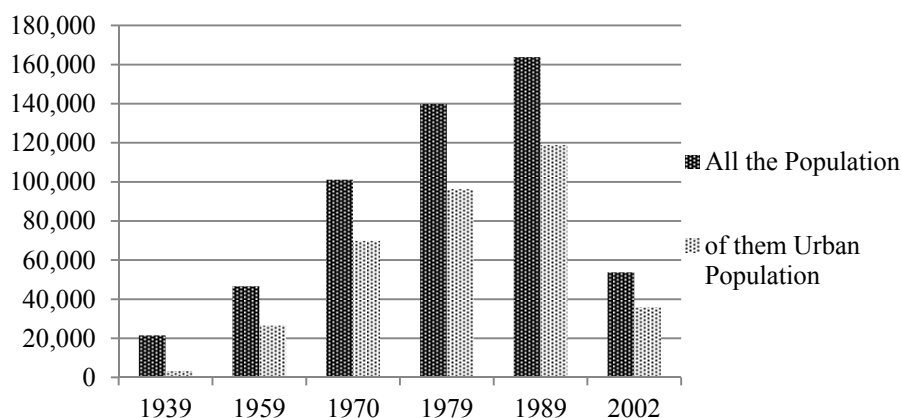
Source: Prepared by the Author.

The Chukotka Autonomous Okrug is known as a region with extremely severe climatic conditions — winter there lasts for ten months a year. The average January temperature fluctuates from -15 to -39°C and in July — from $+5$ to $+10^{\circ}\text{C}$. On 10 December, 1930, it was formed as part of the adjacent Magadan Oblast. Gold, tungsten and other non-ferrous metals are produced on the Chukotka, as well as oil and gas, but the main population inflow came either from prisoners or, particularly during the cold war period, military personnel from military bases (Alaev et al., 2001; Sevruk, 2006).

In 1939, nearly a decade after the creation of the Okrug, the official population

of Chukotka exceeded 21,000 people. Military personnel on military bases and workers of the enterprises essentially increased the number of residents at this territory. After the war, the population rose further, exceeding 46,000 people by 1959 and in 1989, according to the last population census in the Soviet Union, exceeding 160,000 people (Figure 4).

Figure 4. Population Change in Chukotka since 1939 to 2002 (people)



Source: Prepared by the author by results of population census.

During the early Soviet period the major population of the Okrug were Chukchi and other northerners (Table 3), as clearly exemplified by the fact that a very small number of population in 1939 were presented by town dwellers (Figure 4). Nevertheless, already in 1959, the town community prevailed and the majority of the population became Russian (Figure 4, Table 3). Apparently, the inflow of migrants from other regions was considerable. People from the European part of Russia started arriving in Chukotka to construct prisons, resource-producing enterprises, military bases and other facilities, whereupon the national composition started replenishing itself with Russians, Ukrainians and other representatives of union republics.

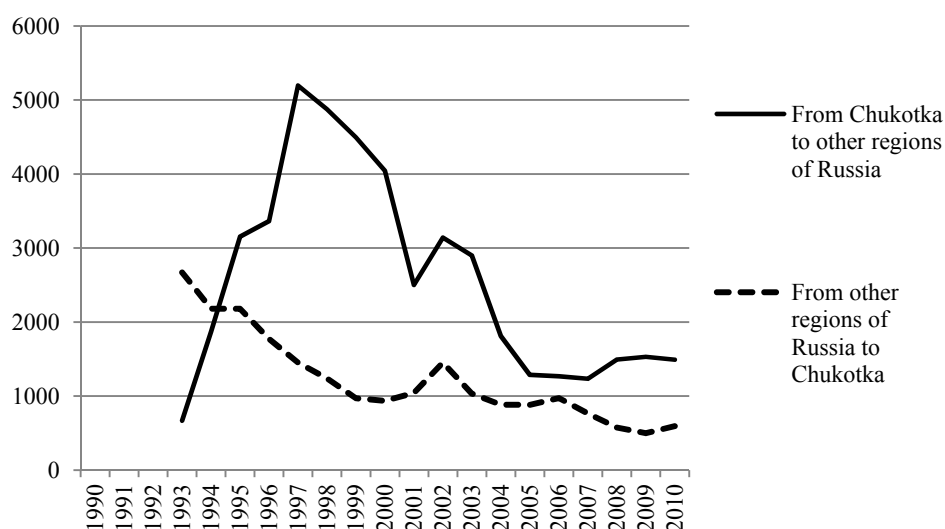
Table 3. Ethnic composition of population of Chukotka Autonomous Okrug

	1939	1959	1970	1979	1989	2002	2010
Chukchi	12,111	9,975	11,001	11,292	11,914	12,622	12,772
Chuvash					944	951	897
Yupik	800	1,064	1,149	1,278	1,452	1,534	1,529
Even	817	820	1,061	969	1,336	1,407	1,392
Russian	5,183	28,318	70,531	96,424	108,297	27,918	25,068
Ukraine	571	3,543	10,393	20,122	27,600	4,960	2,869
Others	2,055	2,969	7,049	9,859	12,391	4,432	2,961
All	21,537	46,689	101,194	139,944	163,934	53,824	50,526

Source: Prepared by the author by results of population census.

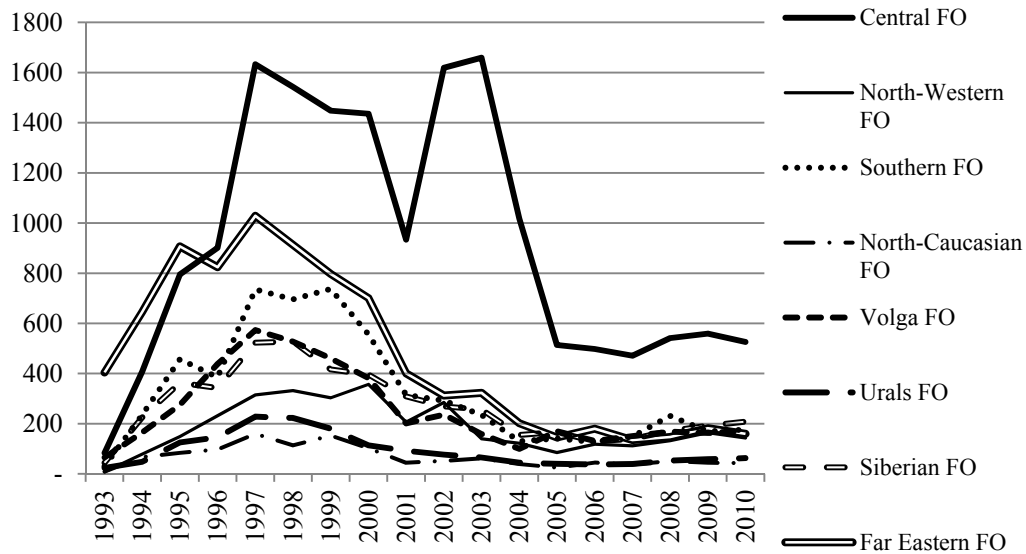
As already observed above, following the demise of the Soviet Union out of Far Eastern regions, a large-scale exodus of migrants got underway. But even with this general exodus in mind, the population of the Chukotka Autonomous Okrug, exceeding 160 thousand people during the last year of existence of the Soviet Union, declined dramatically in just over 20 years — by nearly 50 thousand, namely a fraction of more than a third. These indicators may be seen in Tables 1 and 2 and one of the primary causes is apparently the outmigration. A graph showing the intensity of this outflow is included in Figure 5. As can be seen, after the demise of the Soviet Union, the inflow of population to Chukotka sharply changed to an outflow of migrants from the place. The actual status of Chukotka as an internal colony was also specified by the fact that these migration flows coupled most strongly and specifically with the Central Federal Okrug and primarily with Moscow (Figure 6). The same migration interaction may be observed, for example, between the northernmost region of Japan — the island of Hokkaido — and Tokyo. The population migration in this area, Hokkaido, the most distant from the center prefecture, is mainly oriented not with the neighboring regions, but primarily with Tokyo, the capital of Japan (see: Statistical Service of the Ministry of Internal Affairs Japan, “*Report on Internal Migration in Japan based on house registers of residents*“, 2012).

Figure 5. Population Migration to and from Chukotka (in person)



Source: Prepared by the Author by internal materials of Rosstat. Since 2011 the definition of population migration changed and the data after this is not comparable with those up to 2010, therefore this diagram ended in 2010.

Figure 6. Population Out-Migration from Chukotka by Destination. (in person)



Source: See Figure 5.

The above-mentioned data clearly shows that the development of Chukotka was directly associated with the regional policy of the central government of the Soviet Union. The results of such development policy can be observed more clearly if seen from the demographic situation of the region. In the next section, the author examines the population dynamics inside Chukotka by its region as well as the situations characterizing these areas.

5. POPULATION OF RESIDENTIAL AREAS AND ABANDONED SETTLEMENTS OF CHUKOTKA

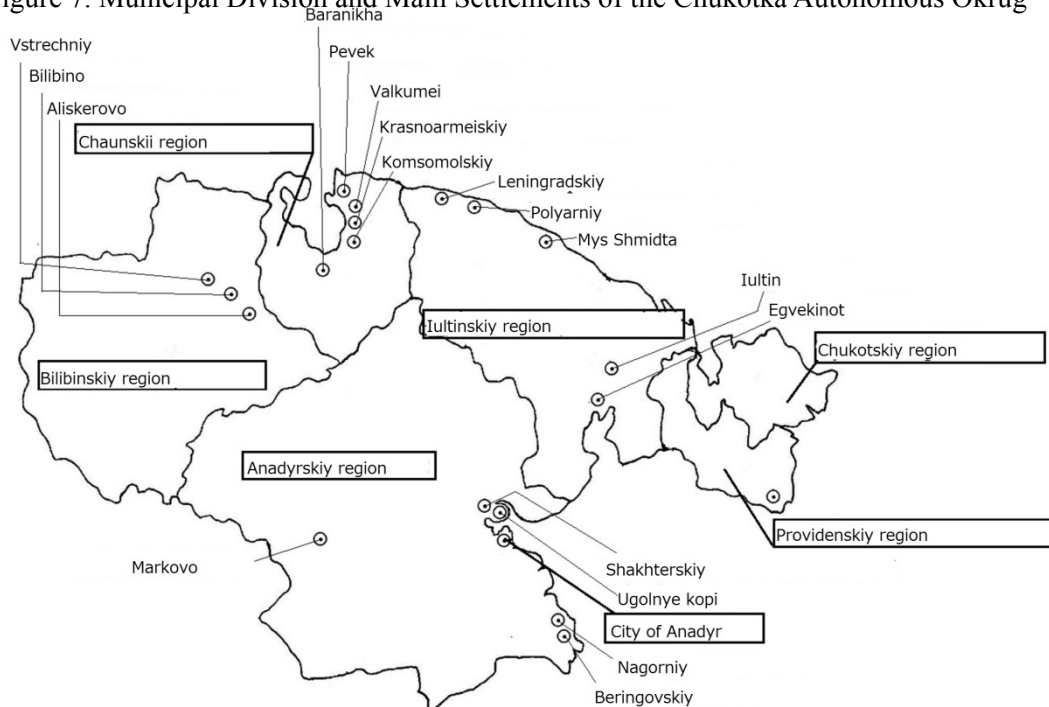
As has been noted above, the huge territory of the Chukotka Autonomous Okrug is scarcely populated and its population density is very low. In cases of depopulation, many urban and rural settlements become totally abandoned and this is a growing region-wide trend. Let the author consider this situation with the specific examples presented below.

5.1. POPULATION OF RESIDENTIAL AREAS

Figure 7 presents a map of the regions and main populated localities of the Chukotka Autonomous Okrug. Prior to 2011 Chukotka was divided into eight municipal districts, but this division was revised in 2012 and now comprises six districts (+ one

city). The names of these districts are enclosed in rectangular boxes on the map. The capital city of Chukotka, Anadyr, is classified as a separate administrative unit, together with the six municipal districts. The chief facilities units for consideration here are the township on the map without boxes; in both Russia and the former USSR they were called “industrial communities” or “town-type residential communities”. This status is received by the populated localities, where over 85% of the population are persons not dealing with agriculture, and the population exceeds 3,000. Figure 7 shows all cities and “industrial communities” as of 1 January, 1992.

Figure 7. Municipal Division and Main Settlements of the Chukotka Autonomous Okrug



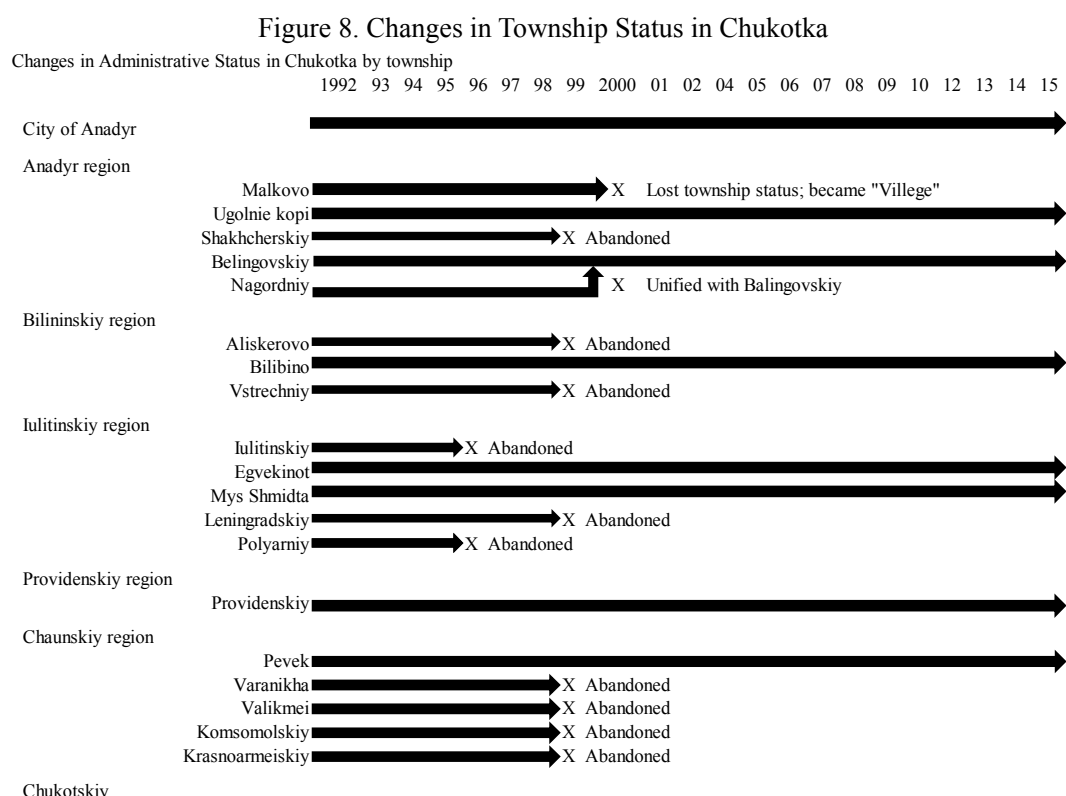
Source: prepared by the author.

19 settlements are shown here altogether. The fact that there were comparatively many cities in spite of its low population of 160 thousands in the area is low population for the Okrug may be explained by the policy that due to considerations of national defense as well as the strategy of developing dispersed natural resources, more dense population of the territory was avoided as a matter of principle (*Hill and Gaddy, 2003*). Nevertheless, this resulted in the existence of comparatively many urban settlements with small population.

Following the decay of the USSR, mass depopulation started and it became physically impossible to support the Chukchi settlements. Consequently, the towns and settlements which were already built up started to be devastated and abandoned with

ever increasing frequency.

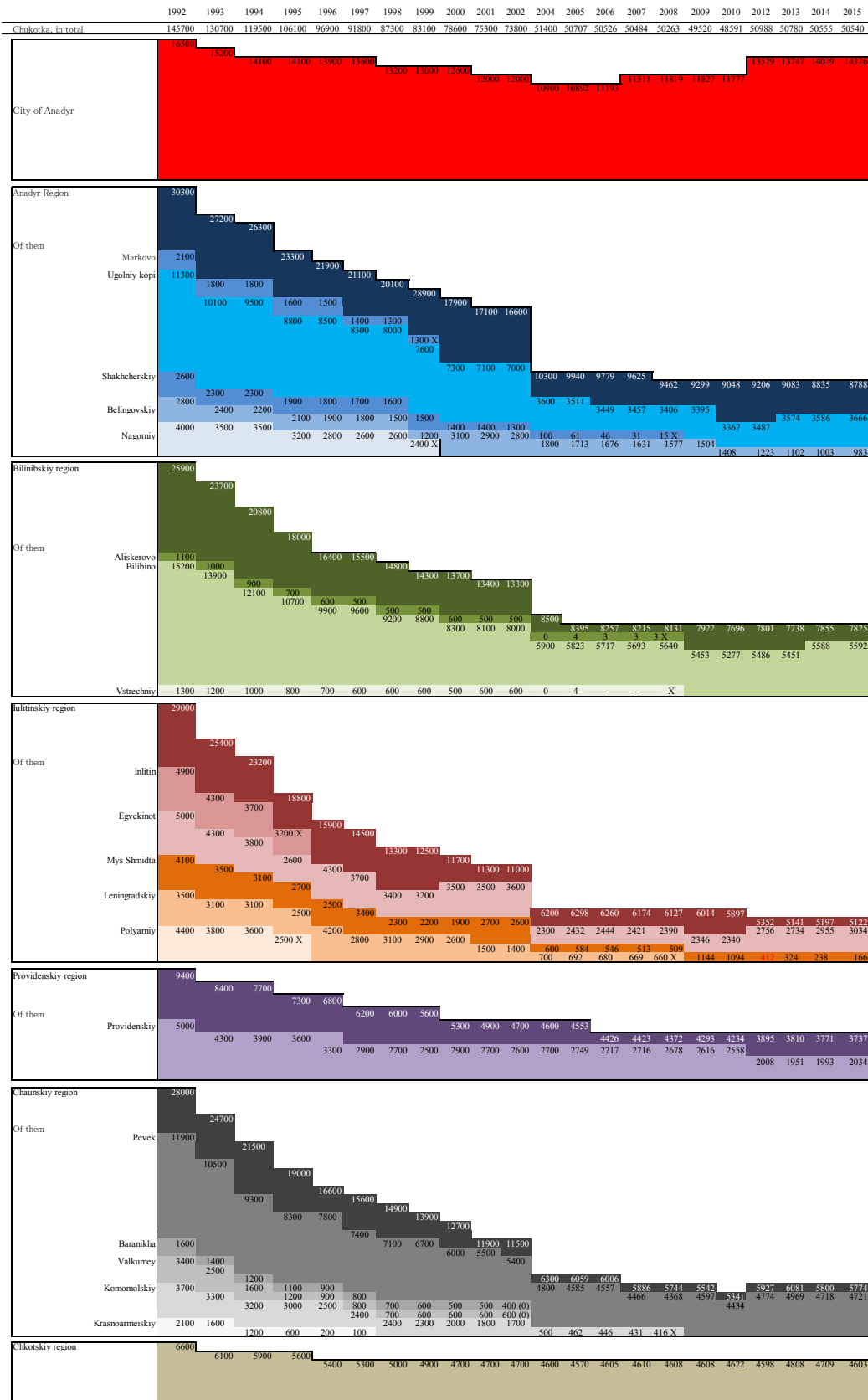
To more vividly understand the demographic trends in districts and populated localities of the post-Soviet Chukotka, Figure 8 and Figure 9 shows changes in township status and the trends in population location by region. As can be seen, the sharp reduction in population is observed since 1991, directly after the decay of the Soviet Union and continued up to the beginning of 2000s. In the course of this process, many of populated localities, initially with few residents disappeared by the end of the 1990s.



Source: Prepared by the Author by Various Materials (law and other documents).

The statistical data specified in Figure 9 may not coincide with reality, since the legal township status may, in fact, not be connected directly with the existence or non-existence of enough population for getting that status. The loss of the township status and official closing down of the settlement, as a rule, happens several years after the number of residents goes below the threshold size. There are cases of settlements which have from 10 to 100 residents after the loss of the township status, whereupon the settlement loses its township status and is officially considered "abandoned". Below the author overviews examples of the Chukotka settlements having lost their township status and been officially abandoned.

Figure 9. Population Change in Chukotka by District, Town and Settlement.



Source: Rosstat, *Chislennost nalseleniya v Rossiskoi Federatsii po munitsipalnam obrazovaniem*, 2015

5.2. ABANDONED SETTLEMENTS OF CHUKOTKA

5.2.1. IULTIN

In 1937 a large tin and tungsten deposit was found in the Iultin district, production of which started in 1959 (Kotryakov, 2003). The mine and ore mining and processing industrial complex were linked by road with the Egvekinot settlement, which was built using prisoners on the coast of the Bering Sea. The Iultin mine was a core in the economy of the Chukotka Autonomous Okrug and during the Soviet period, commercial ships loaded with Iultine tin and tungsten gathered way from the Egvekinot port (Thompson, 2008).

Nevertheless, after the demise of the Soviet Union the situation worsened sharply. The expensive production of row metals under the conditions of the Far North, with its underdeveloped transport infrastructure and within the framework of the Soviet economic planning system, was deemed unprofitable and irrational. In 1995 the settlement was abolished by government order¹ and despite its population still exceeding 5000 as late as 1989, nothing was left there.

Photograph 1. Abandoned settlement Iultin



Source: <http://bashny.net/t/en/108719>



Source: "URBAN3P Project" (<http://urban3p.ru/>)

Tin and tungsten in Iultine were produced for military purposes. The populated locality with 5 000 inhabitants was considered a very large settlement for the Chukotka Autonomous Okrug considering the severe conditions of Far North. Today no people remains here in these buildings.

5.2.2. POLYARNY

The settlement of Polyarny is also situated in the Iultin district, on the arctic

¹ Postanovlenie pravitelstvo RF No.1188 ot 4 dekabrya 1995 g. <O merakh po stabilizatsii sotsialno-ekonomicheskoi obstanovki v Chukotskom avtonomnom okruge I sotsialnoi zashchite naseleniya poselka Iultin>.

coast of the Chukchi Sea, within the Polar Circle. The main development of mineral resources started in 1962 when the Polyarny ore mining and processing industrial complex — the largest gold producing center in the North-Eastern region of Russia — was built to enrich the country with 300 to 400 kg of gold annually (*Redkii, 2014*).

In 1992, the Polyarny ore mining and processing industrial complex was privatized². Initially, there were plans to modernize the plant by introducing new production technologies (*Mikhailov, 2008*), but the market economy meant gold mining in Polyarny became unprofitable and support for it was considered unfeasible. Although about 4,000 people lived here in the in 1980s, after the ore mining complex closed, the settlement was abandoned by its residents and in 1995 the populated locality was officially abolished³.

Photograph 2. Abandoned settlement Polyarny



Source: “FotoTerra.ru” (<http://fototerra.ru/Russia/Chukotka/>)

In the Far North there are many two-storied buildings. Because of snow banks the ground floors are often unfit for living and entrance doors are always opened inwards.

5.2.3. VALKUMEY

The settlement in the Chaun district is situated on the Pevek peninsula at the East Siberian Sea (The Arctic Ocean). It was also established as a center for developing a tin producing mining facility (*Kotryakov, 2003*). It was built in 1941 using prisoners.

The tin mine of Valkumey, the development of which was performed at the

² Rasporyazhenie pravitelstva RF ot 29 oktyabrya 1992 g. N 2001-r <O privatizatsii Polyarninskogo gorno-obogatitel'nogo kombinata>.

³ Postanovlenie pravitelstva RF ot 24 maya 1995 g. N518 <O merakh sotsialnoi zashchity naseleniya poselka Polyarniy Shmidtovskogo raiona Chukotkogo avtonomnogo okruga, svyazannoi s likvidatsiei poselka I perekhodom Polyarninskogo gorno-obogatitel'nogo kombinata na novuyu tekhnologiyu dobycha zolota>.

almost same time with development of the Iultin settlement and Pevek town (center of the Pevek district). Valkumey was also one of the industrial centers of Chukotka. During the Soviet period, although nearly 4,000 people lived there, based on the market economy, tin production was deemed unprofitable and the settlement was also officially abolished in 1998⁴ (Karakovskiy, 2008).

Photograph 3. Abandoned settlement Valkumey



Source: "URBAN3P Project" (<http://urban3p.ru/>)

The Valkumey settlement – one of the key mining centers of Chukotka. After it closed down, all production equipment was left behind.

5.2.4. BARANIKHA

Photograph 4. Abandoned settlement Baranikha.



Source: "URBAN3P Project" (<http://urban3p.ru/>) Source: <http://www.tema.ru/travel/chexp-4/>

Abandoned gold mine and airport

⁴ Postanovlenie pravitelstva RF ot 2 febralya 1998 g. N128 <O merakh sotsialnoi zashcity naseleniya likvidiruemykh poselkov zalotodobytychikov v Chukotskom avtonomnom okruge>.

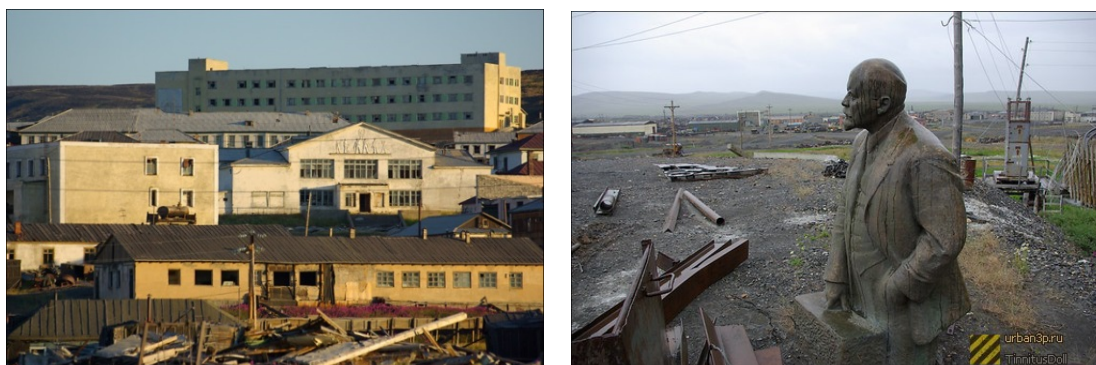
Like Valkumey the settlement of Baranikha is situated in the Chaun district, on the shore of the East Siberian Sea. It was founded in 1960 at a gold mine; the development of which was actively pursued by the Communist Party of the USSR. In 1968 its population numbered 3,100 people and even an airport was built nearby (*Karakovskiy, 2008*). However, under the market economy, further development of mines was deemed unprofitable and like many other industrial centers of the region, this settlement was officially abolished in 1998⁵.

5.2.5. OTHER ABANDONED SETTLEMENTS (KOMSOMOLSKY, KRASNOARMEYSKY, LENINGRADSKY, ALISKEROVO, VSTRECHNY, AND SHAKHTERSKY)

In 1998, when government resolutions⁶ abolished the settlements of Baranikha and Valkumey, many other Chukotka settlements were also officially closed. In the Chaun district, settlements of Komsomolsky and Krasnoarmeysky were closed down; in the Iultin district — the settlement of Leningradsky; in the Bilibin district — Aliskerovo and Vstrechny and in the Anadyr district — Shakhtersky.

Gold mining started in Komsomolsky in 1957 and in Aliskerovo in 1961. The settlements of Leningradsky, Vstrechny and Krasnoarmeysky were also constructed for the sake of gold mining (*Karakovskiy, 2008*). An exclusion from this row represents the settlement of Shakhtersky with its main enterprise – a fish processing plant. Prior to closing down this settlement, all its inhabitants were moved to nearby settlements, mainly to the military base Goodym and Ugolnye Kopi (*Karakovskiy, 2008*).

Photograph 5. Abandoned settlement Komsomolsky



Source: “URBAN3P Project” (<http://urban3p.ru/>)

⁵ See footnote 4.

⁶ See footnote 4.

Photograph 6. Abandoned Settlement Krasnoyarsky



Photograph 7. Abandoned settlement Leningradsky



Source: “URBAN3P Project” (<http://urban3p.ru/>)

Photograph 8. Abandoned settlement Aliskerovo



Photograph 9. Abandoned settlement Vstrechny



Source: <http://foto-planeta.com/np/1024/aliskerovo.html>

Source: “URBAN3P Project” (<http://urban3p.ru/>)

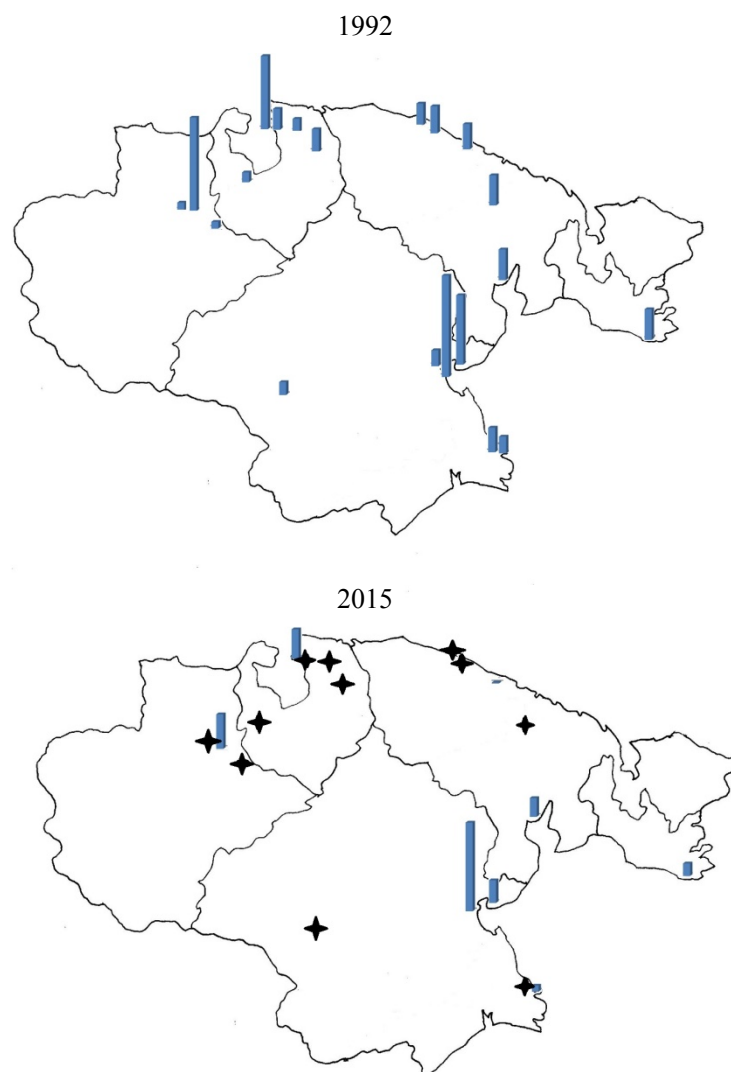
6. INTERPRETATION

In the previous sections the author viewed that many of the populated localities having town status as of 1 January, 1992 today turned out to be abandoned. With this in mind, all the settlements mentioned were officially abolished no later than 1998. Thus, of 19 earlier existing settlements (including the settlement of Nagorny, which merged with the neighboring Ugolnie kopi, and the Markovo settlement, which changed its status from that of a “town-like settlement“ to a “rural settlement“), ten settlements were liquidated; two more following a merger formed one settlement and only 7⁷ settlements


⁷ In the research of T. Litvinenko (*Litvinenko, 2013*), as many as 38 such abandoned settlements were found all over Chukotka, which differs from the description in this paper. The fact is that this work considers the facilities with a town-like status as of the beginning of 1992, while the data of T. Litvinenko (*Litvinenko, 2013*) included populated localities with a smaller status as a “rural settlement”. Technically,

remained unchanged. In other words, as was shown in Figure 10, of all the town-type settlements in the Chukotka Autonomous Okrug, half of them “died”.

Figure 10. Abandoned and Remaining settlements of Chukotka



Source: Prepared by the author based on the database of the RF information-legal portal “Garant” and other materials.

(♦ - Abandoned settlements ;  - Remaining settlements and towns. The scale means the size of population and they are comparable either in 1994 or in 2015.)

the author cannot take into account such data; moreover, according to Litvinenko’s words, her data were presented to her by a third person and she had no ability to recheck the information. Nevertheless, taking into consideration that only one third of the Chukotka Autonomous Okrug population remained, her description seems quite true as well.

At the same time, all cases of liquidation of “died-out” settlements are united by several common factors. First of all, each was created based on mining enterprises for the production of gold, tin, tungsten, etc. and each also had weak transportation infrastructure. Finally also, after the demise of the Soviet Union none could withstand the real expenses required to remain as a going concern, incurred due to the severe conditions of the Far North. In reality, as can be seen in Figure 10, all abandoned settlements are situated far to the North of the Polar Circle boundary with the exit to the East Siberian Sea, while all remaining settlements are concentrated directly in the vicinity of the district centers, and the settlements facing with the Bering Sea in the south remain.

Besides, it should also be noted that all liquidations of settlements occurred before the year 2000, whereupon no further cases of abolishment or change of settlement status were observed. Such change of situation was stood out in terms of the population change, as shown in Figure 9. In reality, at the beginning of the 2000s, although the total population of Chukotka declined drastically, it then stayed more or less unchanged at a later stage. Since the moment of the population census of 1989 to the next in 2002, the Okrug population declined by more than 110 thousand people, but since 2002 to 2010 – the reduction comprised only three thousand people (Table 3).

These figures clearly show that the demographic situation in Chukotka has stabilized. In 1997, already after the demise of the Soviet Union, a “Northern Restructuring Program” was proposed for the movement of people from within the Polar Circle and neighboring areas. In accordance with this program, the intention was to select several towns; the inhabitants of which would be moved to neighboring comparatively large settlements gradually, allowing the former towns to be liquidated from a long-term perspective. The initial experiment conducted for the second in size town of the Magadan Oblast — Susumane (directly to the west of Chukotka), was quite a success: as noted by many observers in their reports, the population of the town where the social base requires extremely expensive maintenance was considerably reduced (*World Bank, 2005; Thompson, 2005*). The program had the following logic to follow, whereby both the territory with a population of one million people and that with only 100 people required a necessary minimum of living infrastructure. Nevertheless, any already built infrastructure will incur ongoing further maintenance expenses. Accordingly, if people are moved from thinly populated towns to more densely populated areas and the desolate towns are abolished, the state as a whole can obtain great economic gain.

At the same time the Government of the Chukotka Autonomous Okrug regarded an optimum population size for the Okrug as 30 thousand people, and set out how to reduce the population in the region (*Thompson, 2005*). One thing is quite clear: if the government of the USSR would not perform its expansionist regional policy for developing the Chukotka — this may result in an outflow of people having no help from Chukotka directly after the demise of the Soviet Union. Nevertheless, today in 2015, quarter of a century after the fall of the Soviet Union, one can observe that the population of the region for the last decade has remained stable; at 50 rather than 30 thousand people. If so, it may be irrational to support local people more than in current conditions.

In the great scheme of things, it is useless and hopeless to create an industrial base in the conditions of Far North. Even from the market perspective, the population of the Far East (6,200,000 people or 4.4%) does not comprise even 5% of the whole population of Russia (144,000,000 people). The market size of the region is apparently limited. In reality, additionally, compared to South-East Asian countries, the Russian Far East has a very small pool of labor resources with a high level of wages. There are many problems to be solved even for issues related to development of natural resources. As is shown by the experience of Chukotka, even when the region tries to excavate wealthy natural resources, almost everything is hindered due to the lack of developed infrastructure.

The period of sharp crisis following the economic transition has ended. Even so, it seems the issue of changing migration flows adversely into the Far East or aiming to establish a production base in the region cannot be appropriate tasks. This is reminiscent of the policy of developing remote regions as practiced in Soviet times. As accentuated by Hill and Gaddy (*Hill and Gaddy, 2003*), the burden of sustaining the social base of remote regions was an eternal “curse” of the former Soviet Union. Today’s Chukotka may be an outstanding example of how to overcome this “curse” and solve the dire problems realistically. The experience of Chukotka is an excellent example for interpreting the errors made by the governmental policy for resource distribution and its development priority.

REFERENCES

- Alaev, E.B., Gracheva, T.S. and Kachalova, E.Sh., eds. (2001), *Entsiklopediya SNG: Regiony Rossii*, Zheldorizdat, Moscow. (in Russian)
- Andrienko, Y. and S. Guriev (2002), *Determinants of Interregional Mobility in Russia:*

Evidence from Panel Data, CEFIR Working Paper No.10, February 2002.

Hill, F. and C.G. Gaddy (2003), *Siberian Curse: How Communist Planners Left Russia Out in the Cold*, Brookings Institution Press.

Kapustin, E. and N. Kuznetsova, Regional'nye Osobennosti Pobysleniya Zhiznennogo Urovnya Naseleniya, *Ekonomicheskiye Nauki*, 1972, vol.1, pp.49-58. (in Russian)

Karabchuk, T., K. Kumo and E. Selezneva (2016), *Demography of Russia: From the Past to the Present*, Palgrave Macmillan, forthcoming.

Karakovskiy, A. (2008), *Ischenuvshie goroda*, Web-Article. (<http://www.dead-cities.ru/>) (in Russian)

Kumo, K. (1997), Economic System Conversion and Migration Transition in Russia, *Review of Urban and Regional Development Studies*, Vol.9, No.2, pp.20-37.

Kumo, K. (2003), *Migration and Regional Development in the Soviet Union and Russia: A Geographical Approach*, Beck Publishers Russia, Moscow, May 2003.

Kumo, K. (2007), Interregional Migration in Russia: Using an Origin-to-Destination Matrix, *Post-Communist Economies*, vo.19, no.2, 2007, pp.131-152.

Litvinenko, T. (2013), Postsovetskaya transformatsiya resursopolzovaniya i ee vliyanie na dinamiku naseleniya v chukotskom avtonomnom okruge, *Izvestiya RAN, Seriya Geograficheskaya*, No.2, pp.30-42. (in Russian)

Marian'skiy, A., *Sovremennye Migratsii Naseleniya*, Moscow, Statistika, 1969. (in Russian)

Mikhailov, P. (2008), Vo glubine chukotskikh rud, *Ogonek*, No.52. (in Russian)

Milovanov, E. V., Problemy Osvoeniya Dal'nyego Vostoka, *Ekonomicheskaya Dvizni Dal'nyego Vostoka* vol. 3, pp.37-41, 1994 (in Russian)

Redkii, V. (2014), *URBAN 3P Project*, Web-article. (<http://urban3p.ru/>) (in Russian)

Sevruga, M.A., eds. (2006), Entsiklopediya Rossiya: Federalnye okruga i regiony, Mezhdunarodnyj universitet "Sodruzhestvo", Moscow. (in Russian)

Saushkin, Yu. G., I. V. Nikol'skogo and V. P. Korovitsyn, *Ekonomicheskaya Geografiya Sovetskogo Soyuz*, Moscow, Izdatel'stvo Moskovskogo Universiteta, 1967. (in Russian)

Thompson, N. (2004), Migration and Resettlement in Chukotka: A Research Note, *Eurasian Geography and Economics*, vol.45, No.1, pp.73-81.

Thompson, N. (2008), *Settlers on the Edge: Identity and Modernization on Russia's Arctic Frontier*, UBC Press.

World Bank (2005), *From Transition to Development: A Country Economic Memorandum for the Russian Federation*, Moscow, the World Bank.

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