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ECONOMY OF THE NORTH IN THE ASPECT OF RUSSIA'S NATIONAL SECURITY

This paper reviews the following questions of studying of the North with reference to a problematic of national safety of Russia: economic maintenance of geopolitics in the zone of Arctic, optimization of distribution of mineral-raw, fuel and energy resources between the Russian and international markets, expansion of inter-regional technological cooperation, coordination of resourced and innovative strategy with representations about postindustrial economy, achievement of a condition of social well-being. The scientific explanation of the specified objects is aimed at formation of a special kind of state policy, notably — connection of separate parts of the country to the creation of the general bases of safe social and economic development. The economic-geographical analysis has allowed obtaining additional proofs on necessity, firstly, of maintenance of the North as an insurance reserve of a sustainable development of the country and, secondly, eliminating those reasons which could lead to undesirable position of the North as hypothetical destabilizing element of national economy.

Keywords: the Arctic, the North, geopolitical and social economic situation, integration in geographical systems «South — North»

Introduction

National security is formed of a set of qualitative and quantitative characteristics of the country's defense, economy, energy, ecology, demography, food security, social, scientific, technological and informational development. Apparently, other economic and social activities may also be considered from the standpoint of safety. Of great importance is its spatial dimension, which is fixed by deviations of the administrative-territorial units of the country (or specially designated areas) on the threshold of norms and standards for secure development. It is evident, for example, from the results of studies of energy and other types of security of the Ural regions [13], from the scientific and analytical materials on the economic security of the Republic of Komi [16] and many other development projects conducted by academic institutions.

During previous periods, the estimates of intradominated security with the use of certain indicators and the allocation of powers of the crisis (from primary pre-crisis to the threatening crisis) were dominating. Significantly less representative were the evaluations of the contributions made by a particular region to the security of the whole country, which was caused by aspiration of the Russian Federation's subjects to self-defense, especially

against threats to the revolutionary reforms, as carried out by the central government. With the transition to the same evolutionary strategy, the value of Russia's «through» integration processes increases and, consequently, of those scientific concepts that link with the future of the country, national, regional and local interests and needs.

Such a position is increasingly becoming the source in the study of the Arctic and northern regions. It was originally formulated as following: on the one hand, «Russian Federation, coming to a gradual shift towards the geographic North and East, not only can offset the effects of adverse changes in the European part of the country, but also reveal the prospects of a new general economic recovery. In essence, this is a unique historical opportunity for sustainable development, which can guarantee the future of the whole Russia as a great power» [1, p. 13]. On the other hand, «the projection of the northern Arctic and specificity of Russia's national security needs to be done, first of all, onto the ten million people living here, their history and prospects for natural reproduction of all aspects of life. Public policy with respect to the North can be effective if it reviews and considers the life of northerners as a part of the total national wealth» [4, p. 109].

Reciprocal movement of national and regional general is the basic condition of unified security that can only be viewed together with the problematic of sustainable development as of the country as a whole and its separate regions.

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The meaning of the northern and Arctic regions in the new geo-economic and geopolitical conditions of Russia's development¹

In the works of the Russian research scientists, the value of the North and Arctic regions of present-day Russia is caused by the fact that, on the one hand, that its large part has extreme or very difficult natural conditions of life and economic activity with the cost 1.5–2 times or more higher than in the central zone. On the other hand, it is a zone of strategic interests of Russia, as it has unique geopolitical, natural resource, socio-economic and ethno-cultural potential. This duality is economically fixed as a balance of negative and positive rent.

In determining the geo-economic and geopolitical positioning of Russia concerning the North and the Arctic, most researchers are basing on three fundamental principles:

1) *globality* — Russian North and the Arctic are considered in the context of international trends and regulations, taking into account the existing balance of forces of Arctic states and their interests;

2) *sovereignty* — when the Russian North and the Arctic «fit» in the first place into the national socio-economic system and all measures to regulate their development are aimed at protecting national interests and sovereignty of the Russian Federation;

3) *regionality* — records of all kinds of local features, the availability of existing historical and cultural «cores» (territorial communities of people), the ethnic unity of the border territories of two or more countries.

¹ The northern vector of geopolitics and geo-economics, an integrated approach to the definition of the role of polar and subpolar regions in the solution of global and national issues is the subject of many focused studies conducted by the institutes of the Russian Academy of Sciences. Among them we note the Institute of Geography, World Economy and International Relations, Systemic Analysis, Economics of the Ural Branch of RAS, Economics and Industrial Engineering of SB RAS, Economic Research of FEB RAS, Pacific Institute of Geography of FEB RAS, Economic Problems of the Kola Science Centre of RAS, Socio-economic and Energy Problems of the North of Komi Science Centre, Environmental Problems of the North and the Economic Research Department of the Arkhangelsk Scientific Centre of RAS, Humanities Research and Indigenous Peoples of the North of the Yakut Scientific Center of SB RAS, North-East Complex Research Institute of the North-East Science Centre RAS, as well as the Council for the Study of Productive Forces of the Russian Federation Ministry of Economic Development and RAS. The results of these studies conducted at the institutes of northern and arctic topics were partly reflected in the four-volume edition under the logo «North» [8, 9, 10, 11]. If we consider similar studies abroad, more than a hundred north-studying organizations can be counted and the number of annual publications is over one thousand.

A critical assessment of socio-economic processes in the Russian sector of the North and the Arctic made by foreign researchers stems from mistakes of the planned economy of the Soviet period, the negative results of the revolutionary reform of the Soviet social system and the shortcomings of a common regional policy in modern Russia. The comparison, as they say, is not in our favor in these principal directions:

1) demographic — in the Russian part of the global North and the Arctic during the reform years, the population has decreased by more than 30%, and in the foreign part it increased almost equally. For example, the business center of Alaska, Anchorage in 2010 had a population of 291 thousand people, that is getting closer to the city of Murmansk (305.6 thousand), although in 1990 it lagged behind on this indicator twice;

2) financial — only Arctic and partially northern regions of Russia send to the federal budget more funds than they receive in the form of reverse transfers. The level of fiscal capacity of many northern Russian regions is even slightly lower than the national average;

3) infrastructural — the infrastructure severely hampers the realization of investment projects, including the development of offshore hydrocarbon resources (on the verge of a full stop is a large part of the ports, the length of paved automobile roads with hard surface in the Republic of Sakha (Yakutia) is less than two thousand kilometers and in the same state of Alaska, which is two times less in size — more than 20 thousand kilometers).

New trends in the positioning of countries and companies in the Arctic region are associated with the expectations of the coming years, large-scale development of hydrocarbon fields and transport [12]. However, the alignment of forces and priorities is quite controversial, including the lack of approaches recognized by the international community to the demarcation of the boundaries of the shelf beyond the 200-mile radius [1].

We should pay special attention to the contradictions and conflicts in the Arctic relations. The Arctic is becoming a major source of energy and mineral resources. For Russia, the Arctic plays a more prominent role than for other countries, but due to domestic economic and scientific-technical weakness, it realizes that role until now on a very low level. These are America, Canada, UK, Germany, Norway and Japan building a strategic line of penetration into the Arctic, including Russia in its sector

and the area adjacent to it, to the extent doing more than is assumed by normal proportions of international cooperation. Such a line is drawn, primarily, through the repression of the Russian Arctic infrastructure maintenance activities. Of particular interest for the other countries and companies as already shown are Stockman, Pirazlomnoye, Ardalinskoe, Varandeyeskoe and Novo-Portovskoe hydrocarbon deposits. The desire to oust Russia from the slopes of the Northern Sea Route is obvious. Attempts are made by the foreign governments to change its legal status. Thus, Norway has been seeking long to transform the Northern Sea Route into international transit highway, outside the control of Russia. Our country needs to implement this package of measures to achieve military, political and economic security.

The borders of the Russian Federation go along the Arctic Ocean and the Far Eastern seas for over 20 thousand kilometers. In this regard, it should be noted that the ice-breaking, cargo transport and rescue fleets, ports, navigation, hydrographic and hydrometeorological services are in a difficult state of crisis.

The disadvantages of infrastructural support of the Arctic zone with the right approach to its economy can be eliminated in the next 5-10 years. More complicated is the legal issue. The fact that the formed since the beginning of the XIX century sectoral principle of sovereignty of the Arctic spaces in recent years has been broken, it was a consequence not only of partial illegality on the part of some countries, but also the mistakes of the Soviet and then the Russian government in the delimitation of exclusive economic zones and continental shelf. The consent of the political leadership of our country, given in 1990 on the abolition of the sectoral principle in the Arctic, was erroneous. It has not been ratified, and therefore should not have legal force. The principle of sectorality should be recovered, especially since the other polar countries, in fact, did not cancel it.

Of course, the Arctic is a springboard for international cooperation. If the resources of the continental North need to be more rigidly bound to the national economy for the sake of forming a full-blooded all-Russian market (this will be discussed below), it is reasonable to shift the center of gravity of external economic relations of our country in terms of mineral and fuel resources toward the Arctic. Here, the natural conditions are so complex, and reserves of minerals and biological resources of are such magnitude, that it will certainly require extensive inter-

national cooperation, but with the mobilization of the Russian scientific and technological capacity and the establishment of legal and economic order that protects the interests of our country. Of course, it should be kept in mind that the territories of the North and Arctic Russia still possess the human potential that is more important than the northern and arctic regions of the other countries [3]. The Arctic World covers an area of 12.6 million square kilometers with a population of 4 million people, 34% of the territory and 48% of the population falls on the Arctic regions of Russia, their share in the production of gross domestic product (taking into account the parity of purchasing power of national currencies), is approximately at the level of 65%.

Political and economic approaches to the north and the Arctic regions of Russia are very different, but two approaches dominate. The first one is based on the idea of paternalism, the second — on the idea of self-development, in the first case the emphasis is put on government grants and subsidies, in the second one — on the domestic sources and driving forces of development. State policy now can not consider both these aspects and experiences of their implementation in practice. The Russian experience is interesting because of the parts of zonal valuation and rationing and rate fixing the level of discomfort, the U.S. (with respect to Alaska) — creation of the economic base for the local population, Canada — organization of ethnic environmental and land rights, Scandinavia and Finland — retaining the traditional culture of the Sami population, Denmark (with respect to Greenland) — the provision of autonomy, political rights and self-management.

A critical assessment of the geopolitical and geo-economic situation in Russia in the northern latitudinal zone does not mean that in the areas of other countries (USA, Canada, Denmark, Iceland, Norway, Sweden and Finland), everything is well. In general, circumpolar and polar areas of the world are sharply problematic ones. To overcome significant contradictions and conflicts in the political, legal and economic relations, interaction among various entities involved in the North and the Arctic (states, firms and multinational companies) should be organized. With regard to economic relations, those, in our opinion, should not be based on the distribution of goods (e.g. oil), and the distribution of the proceeds from their sale. And, of course, one must adhere to the principle of equal participation in the activities of international organizations such as the Arctic Council, the Northern Forum,

the Northern Dimension, the Barents region, the Arctic Academy, the International Arctic Science Committee and others.

The priority of Russian internal market and interregional integration

The problems of Russia's national security are largely due to the threat of a possible split of its economic space to separate parts, each of which will become increasingly a particular unit of global membership and less — of the national market. The origins of this threat are: excessive focus on exports of raw materials and energy resources at the expense of domestic needs¹, migrational and territorial expansion of the Asian countries, organizational hierarchy of the basic industries with financial and economic management of multinational companies and joint ventures.

In this situation, the North could play the role of a hoop or a clamping ring, but only in case of the integration in system of Russian domestic market, that by its significance is even more important than integration within the CIS or Customs Union.

The theory of the geographical division of labor and distribution of productive forces can be interpreted as the final stage of the integration of all other forms of social organization of the economy — concentration, specialization, combination and cooperation. Science recommends the practice to understand the objective prerequisites for integration, which essentially are as follows: with the development of productive forces, separately industries lose

¹ When it comes to optimizing the export and domestic consumption of energy resources, it is necessary to bear in mind the differences in market power of oil and gas. The analysis conducted at the Institute of Economic Problems named after G. P. Luzin, Kola Scientific Center of the Russian Academy of Sciences, showed that the present thesis on the high magnitude of Russian oil is highly questionable. When the share of Russia in the global oil reserves is less than 5%, it has more than 15% of global oil production, which means the oil sector of the economy works in the unsustainable regime. The ratio of proven reserves and oil production in Russia in the mid-2000s was 18 times, while in Canada — 213, Iraq — 192, Kuwait — 116, Emirates — 105 and Saudi Arabia — 78 times. It is this fact (though not only) due to the priority of domestic oil consumption, ensuring energy security of Russia itself.

Different is the provision of gas: Russia has more than 25% of world reserves and a similar proportion of production, the ratio of proven reserves and production — 76 times (a higher one is only in Qatar — 534, Iran — 304 and Saudi Arabia — 105). However, there are also «bottlenecks»: it is advisable to significantly increase exports of liquefied natural gas and the internal processing of the most valuable fractions (ethane, propane and butane) for gaining gas-chemical products.

their ability to focus only on the best options of the location of production for themselves; the isolated location of individual plants is not possible, just as an isolated planning for regional development [6].

The integration does not happen by itself, but as a result of purposeful activity and with the help of special institutions and special methods of regulating the economy, for example, coordination and promotion. Mutual interest of enterprises and regions is to obtain a synergistic effect on the overall activities.

Only consistent sequence of integration is useful for the practice: the first stage is vertical connection to the technological basis, then — its horizontal adjustment for potential consolidation opportunities to address areas of common business tasks, and then — the development and implementation of joint projects of economic entities.

Based on this explanation, the northern and Arctic resources should be included in a continuous technological process on the whole all-Russian space taking into account geographical features of latitudinal and meridional megastructures. This trend applies not only to major mining and manufacturing sectors, but also sciences, methods of construction on permafrost soils of the northern fishery, agriculture, greenhouse management, shift management of natural resources, the creation and maintenance of winter roads (winter trails, ice roads), the design and development of technology in northern performance, samples of winter clothing and shoes, etc. What is studied and created specifically for the North, then at least can be used effectively in other locations, primarily in the eastern and subnorthern western regions of the country.

Significantly important is the relationship in the sphere of population. Subnorthern neighbors are to a greater extent adapted to the northern settlement and residence of migrants than the southern regions. This has been proved by many years of experience and advice of physicians and physiologists, that it was not appropriate to a change the residence dramatically because of the climatic conditions of life. On the other hand, these same regions have become strongholds in training staff for the North.

Meridional megastructures, in our opinion, should be allocated separately, because they determine the prospects of the productive forces of Russia in view of a natural movement in the direction of «North — South».

On the economic map of Russia, a huge role in the organization of space intersection with the east-

west railway lines major rivers of the meridional direction and the northern Pacific sea routes is very clearly seen. At the points of intersection, it is advantageous to place the companies of national importance, including those specifically targeted at the development of the North. This design of space will be strengthened by the construction of new railway lines and in the first place — by upgrading the existing North Siberian — Trans-Siberian and Baikal-Amur main ways. It fits well into recovery program of the Northern Sea Route [14]. The combination is completed with the construction of rail and waterway roads of latitudinal and meridional direction, and in some places — new railways connecting the southern and northern areas. In the European part of Russia, the importance of «Belkomur» and in Asia — the Amur-Yakutsk railway is noted.

In the integration of space in Russia, such megastructures of meridional direction as the Pacific, the Lena, the Yenisei, the Ob-Irtysh, the East-Ural, the West Ural and the Barents-Baltic can play an important role. They stand out without pretensions to classical economic regionalization, but for the mainstreaming of transport capacity and production in Russia and improvement of the framework of the territorial structure of its economy, one of them is the problem of the restoration of navigation on the large Russian rivers.

The example of the western Ural «meridian» (from the Pechora and the Caspian Sea) shows that it is associated with the decision of the selection of new economic issues: the northern Urals industrial orientation, balanced by resources and environmental capacity development of the territories of the Komi Republic and Perm region, the optimization of the territorial-production structure of the oil

and gas sector of the economy (from Naryan-Mar to Orenburg), the development of the transport network from North to South, etc.

Strengthening the integration is a matter of general public policy. As for the North, the function of the four federal districts: the North-West, the Ural, the Siberian and the Far East, it is in their structure that the North is represented very significantly, especially in the area and the gross regional product (Table 1). All target federal-district-scale programs consider northern areas separately, for example, in the part of the solution of scientific, technical, social and environmental issues.

Intellectual, industrial and investment potential of the mentioned federal districts receives an additional impetus to growth if connecting them to the northern and arctic projects.

Interdependent formation of raw mineral and scientific-technological complexes

A significant role in the organization of the spatial development plays the theory of growth poles. It is based on agglomeration effects and diffusion of innovations. In Russia, this theory has not received any recognition for a long time. It was opposed to the principle of equitable distribution of productive forces and the leveling of large economic areas. In the end, both positions (Western and domestic) were subjected to serious scientific criticism, as wrongly claiming to be universal.

Currently, the problem of placing Russia's productive forces is formulated in two ways. The first one is the formation of mineral complexes. Most of them are located in the north. This trend is associated with accelerated development of the science of

Table 1

The North in the territorial and economic structure of Russia and its federal districts (fitted)

Russia and federal districts	Territory		Population, as on 01.01.2010		Gross regional product (in 2008)	
	mln km ²	%	thousand people	%	bln. rubles	%
The Russian Federation	17,10	100,0	141914	100,0	34320,4	100,0
Including the North	10,7	62,6	9706	6,8	5225,4	15,2
North-Western Federal District	1,69	100,0	13437	100,0	3400,3	100,0
Including the North	1,33	78,7	3726	27,7	927,0	27,3
Ural Federal District	1,82	100,0	12280	100,0	4859,4	100,0
Including the North	1,50	82,4	2410	19,6	2970,0	61,1
Siberian Federal District	5,15	100,0	19561	100,0	3491,4	100,0
Including the North	2,44	47,4	1050	5,4	436,4	12,5
Far East Federal District	6,17	100,0	6440	100,0	1547,8	100,0
Including the North	5,25	85,1	2520	39,1	892,0	57,6

* Regions of the Far North and localities equated to them.

geology, geotechnology and recovery of exploration as a major sector of the national economy [5].

The second one is the formation of innovative scientific and technological complexes. The strategic plan provides for the creation of Russia's development of several major metropolises with a focus set on the «breakthrough» technologies and innovative products. An attempt to identify those specifically in the area of Vladivostok — Khabarovsk, Novosibirsk — Tomsk — Krasnoyarsk, Yekaterinburg — Chelyabinsk, Samara — Kazan, Rostov-on-Don — Krasnodar, Moscow — Moscow region (for example, Skolkovo), St. Petersburg — Leningrad region.

The Ministry of Regional Development considers the formation of these structures as its general objective. In «Concepts of long-term socio-economic development of the Russian Federation» (the version of the Ministry of Economic Development as approved by the Government of Russia in 2008) this direction is also indicated, but complemented by a more developed network of regional industrial clusters.

Vladimir Putin, in his pre-election paper mentioned: «The development of areas of Russia has to start from the lands of the major economic centers. Enhancement of the agglomerative radius of our cities by 1.5-2 times will increase the available territory around the area by several times. This will help to fully overcome its deficit, reduce the cost of residential and industrial buildings by 20-30%. This will significantly raise the profitability of the suburban and rural economy, and quality of life of agricultural workers «[7]. To some extent, the direction of spatial development is quite acceptable. However, we shall pay attention to the danger of an exaggerated interpretation. Passion for only one theory (correctly only in the specific context of the spatial organization of economic activity) becomes a threat for a large number of medium and small settlements. An excessive increase in the concentration of material, financial and human resources in 10–12 ranges (agglomerations) can make the rest of the place an «economic desert». A sense of proportion in the relations between «center — periphery» is actually of great importance.

The key question to the northern regions in this case is, whether a role of extensive, traditionally commodity development is prepared for them? With the resources limited, this can happen. Therefore, along with plans to build large-scale metropolises in the spatial reference frame of Russia, it is important

to declare the feasibility and effectiveness of resource and innovational development of the northern periphery with its scientific and technological clusters and «growth poles», which geographically coincide with the perspective raw-mineral complexes.

This is possible on the basis of high technologies in energy and energy conservation, mining and mineral processing (geotechnologies), production of liquid synthetic fuels from coal, production of adsorbents, integrated use of paraffin, ethane, butane, propane, hydrogen sulfide and organizations on this basis, production of polyvinyl chloride, plastics, gas, sulfur and other products. Good prospects for the production of various types of ceramics, stone molding and production of basalt fiber, synthetic crystals, wood chemistry and biotechnology can be a reliable basis for socio-economic development of the taiga territories [10].

Increasing the level of technological development of natural-resource sector of the economy and the diversification of industrial structure will, of course, play a positive role in maintaining the North not only as energy and raw materials basis, but also as a specific living space for the locally rooted population.

The North and the postindustrial economy

A formal interpretation of the post-industrial development as a small fraction of the total dominance of the industry and various kinds — services in terms of Russia has a danger of loss of material-technical base of the national economy. Our country underwent de-industrialization as a result of the revolutionary reforms, and therefore rightly became a developer of a scientific and political doctrine of the new industrialization, which should be based on advanced scientific and technological achievements. But this does not mean that the idea of post-industrial society should be pushed into the background. It is advisable to return to its original meaning, which consists of the gradual formation of a civilization that has come to replace the capitalist system, and would have a different structure, which not only economic but also social characteristics differ from the existing ones [2, 17].

New industrialization of the North is planned mainly in three directions:

1) natural resources — due to the accelerated development of bio- and geotechnology;

2) sectoral — by placing a sample of manufacturing industries, including electronic, in need of fresh air;

3) territorial — by the localization of processing and manufacturing industries in the areas of the Middle North, wider use of the expedition, the district and shift methods of resource development of the Far North and Arctic, as well as the development of transport and information networks connecting to them the institutions of education, health, tourism and other social services.

Of fundamental importance for the North is the orientation on the unfrequented technology (minimally manned operations) and high productivity. This applies to all types of economic activity. One of the characteristics of Russian economic system is particularly well seen here, when the primary (main) manufacturing operations of domestic companies lag behind foreign counterparts in labor productivity by 10-15%, taking into account the first round of pairing with auxiliary and service industries — by 1.5-2 times, the second round (transport, energy and water supply) — by 2.5-3 times, and if we review the whole business turnover — by 4-5 times. Therefore it is necessary to systematically approach the issue of labor productivity, taking into account scientific and technological achievements in a variety of activities.

Postindustriality is related to the humanization of the economy, which is very essential for the traditional economy of indigenous peoples of the North. Reindeer herding, hunting, crafts and environmental activities should be considered as within the market (the equivalent of merchantability and sharing of resources limited demand) and outside (expolar economy, that is not planned and is not the market type). The northern municipalities and communities can be the first ones to demonstrate the possibility of its existence as a new type of corporation — the territorial socio-economic, that in the future could serve as an example for the whole country.

Social security

Regional policy is focused mainly on the equalization of social well-being of people living in different parts of the country. Threats to national security arise when the policy is overly associated with the «separative appeasement of aggression» (for example, the North Caucasus), or a misunderstanding of the essence of natural history and diversity of lifestyles (for example, the North, Siberia and the Far East).

To demonstrate the threat of social security, some indicators of the current state of the northern regions are presented (Table 2). They reflect differ-

ences in population dynamics (from growth to double or more reduction) and their conditioning not only rather by income levels and social stratification, but also reasons, the identification of which is beyond the scope of traditional statistical analysis.

From our point of view, regional policy should be aimed at the formation of an ideal social image of each region and even each municipality. It makes no sense to compare the agricultural Republic of Altai with oil and gas Khanty-Mansi district, but it is reasonable to compare the current state of the model with its own well-being, taking into account natural conditions, history of development, transformations in the way of life and economic specialization, the principles of a healthy lifestyle, the internal perception of comfort and other factors.

This social standard is not an utopia at all. It determines a vector of real action on the creation of jobs with adequate wages and appropriate training, enhancing the commercial enterprise, the equivalence of barter, the regulatory limit of income levels and prices of essential commodities, restructuring costs and raising the amount of social payments.

The quality of the environment is also of great importance. It is worth recalling that the principles and rules of the zonal planning of settlements, developed during the Soviet period, as well as specific projects of arctic housing, were not implemented. They need to be modernized and, at least experimentally, to be implemented in the new field of economic growth in already developed suburban areas.

Social aspects of national security are largely predetermined by the quality of food. It became dangerously ill, dangerous to health. In this regard, should pay attention to the greening of agriculture and food industry. Environmental friendly products became scarce, as the expansion of their production is stimulated in some way for the implementation of the northern advantage, when the farmland is not yet saturated with nitrates, pesticides, and similar elements and substances. Direction under the name «organic farming» with respect to the conditions of the North has a scientific basis, and some positive experience of Finland [15].

Conclusion

The North is involved in ensuring the national security of Russia on many fronts. In the author's understanding, the main ones are: the development of economic activities in conjunction with the infrastructure of the defense on the Arctic frontier, targeted and methodically organized, connecting

Socio-economic indicators of the Russian Federation completely assigned to the Far North and localities equated to them (the order of arrangement is shown in accordance with the dynamics of population)

Subjects of the Russian Federation	Population, thousand people		% of population with incomes below the subsistence minimum, 2009	Ratio of per capita income and the cost of living in the IV quarter of 2009, times	Ratio of funds, 2009, times
	2010 population census	in % to the level of 1990			
Khanty-Mansi Autonomous District	1532	120	8,7	4,7	17,3
Yamalo-Nenets Autonomous District	523	107	7,9	5,2	18,2
The Republic of Altai	206	105	32,2	1,9	9,4
The Republic of Tyva	308	101	28,0	2,3	15,5
The Republic of Sakha (Yakutia)	958	86	19,5	3,0	14,4
The Republic of Karelia	643	81	17,1	2,6	10,4
Nenets Autonomous District	42	81	7,3	4,3	19,8
Arkhangel'sk region	1228	78	14,0	3,0	12,8
The Republic of Komi	901	73	16,6	3,2	17,2
Sakhalin region	498	70	12,0	4,0	15,9
Kamchatka territory	322	67	23,2	2,4	11,8
Murmansk region	795	67	14,7	3,7	13,6
Magadan region	157	41	15,8	3,5	14,8
Chukotka Autonomous District	51	32	11,3	4,7	14,6
The Russian Federation	142856	96	13,2	3,9	16,7

Sources: The results of population census, 2010 (Internet sources); Regions of Russia. 2010: statistical digest. Moscow, 2010. P. 56-57, 178-182.

the Arctic energy resources to world markets taking into account Russia's interests; large-scale introduction of natural resources of the continental North to the technological co-operation of domestic manufacturing industries that will maintain the integrity of the Russian domestic market and create economic benefits in the amount greater than the

export; the usage of areas in the Arctic and the North as a polygon number of scientific and technological innovations (technology for northern territories and conditions, geo- and biotechnology, organic agriculture, etc.), formation of the economic foundations of social well-being of territorial communities of people with the priorities of indigenous peoples.

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