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EVOLUTION OF GEOPOLICY FACTORS DETERMINING REGIONAL SPATIAL PLANNING OF ARCTIC REGIONS

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Abstract

The article sets out the main provisions in assessing the impact of the ten major geopolitical factors that determine the conditions for sustainable development of Arctic regions. As indicators of sustainable development is invited to consider the values of probability characteristics of manageability of the region on this issue, and as a criterion for controllability-the line of a certain critical value at which structural deformation should be public. Shows the need to consider the complex influence of factors on controllability of gain level will be of influence factors on regions of different scale. The evolution of geopolitical factors to predict absolute and relative influence of various factors on the dynamics of the region.

Keywords

Geopolitical factors, sustainable development indicators, the evolution of the factors driving the dynamics in the region

INTRODUCTION

There is a clear need for the active and constructive cooperation between the State, science, industry and the business community for the formation and implementation of the common strategy of innovative development of the modern Arctic. Search and the adoption of joint concerted solutions must meet common interests, promote sustainable development of economy, social and environmental conditions in the Arctic. Most important geopolitical factors, their evolution require an innovative approach when you post in all spheres of life and, above all, in ensuring the security of the society of different scale, because sustainable development can make sense only under conditions of security.

Globalization is an irreversible process of international of the life of the world community. Changing the usual submission of about such concepts as space and time. Created a situation where Russia must develop a whole new strategy in its regional policies with a view to not only retain their integrity, but also understand its new geo-economic role in a rapidly changing world. Key to innovation is not just a novelty, but its scientific rationale. With respect to the geopolitical factors of evolution means considering them not in statics and dynamics to predict, consider variations, that is a scientific substantiation of decisions that make up the essence of innovation.

The regional dimension in the modern economic processes there is in the world of the first plan. The erosion of State and administrative boundaries brings to life a new cross-border and cooperative projects that were previously completely impossible to us. Strategic analysis of the European Union in

recent year's vis-à-vis the Russian Federation shows that, at least in the medium term, the EU regards Russia, mainly as a source of energy and other natural resources and at the same time as the likely source of environmental disasters.

Credo of our Academy is to harmonize science-power-relations business, as well as the relationship between the older generation of experienced and young scientists, to the achievement of one generation moved on to the next generation. Russia has made tremendous efforts in the development of the North, from the pioneers-Kazaks, expeditions of Bering to Papanin's expedition and our contemporaries. A unique production in the North, the Northern Sea Route is a unique backdrop. Today all the leading countries of the world are showing increased interest in the Arctic as a source of successful development in the 21st century and the *Mission of Russia in the Arctic is dynamic balance impact of the above factors in terms of the inevitable globalization of the world's Arctic policies*, forming a system of views on the prospects of development of Arctic regions, taking into account changes in vectors and promising directions in political, economic and humanitarian areas against the background of globalization, integration and rapid development of high technology in modern society, Arctic regions on innovative ways for sustainable development and security in the context of the prospects of development of Russian and world communities, taking into account the interests of States, businesses and the public. Results of the work of several generations that have laid sea, air and ground communications; discovered and developed the richest deposits of mineral resources; a unique infrastructure of human waste in permafrost should not be lost in the 21st century. Although one can still hear claims that assimilating the Arctic is unprofitable, at great losses and is a waste of manpower and resources. In all this, one can guess purely widespread attitudes. From the perspective of geopolitics in the context of the global problems facing mankind, the further development of the Arctic offers tremendous benefits are not quantifiable monetary. *The evolution of geo-political factors in the Russian Arctic, mission is not only to strengthen their influence on trends of sustainable development processes, but also to reallocate there.*

The impact of each factor on the sustainable development of the Arctic (expert estimates) schematically shown in Fig. 1.

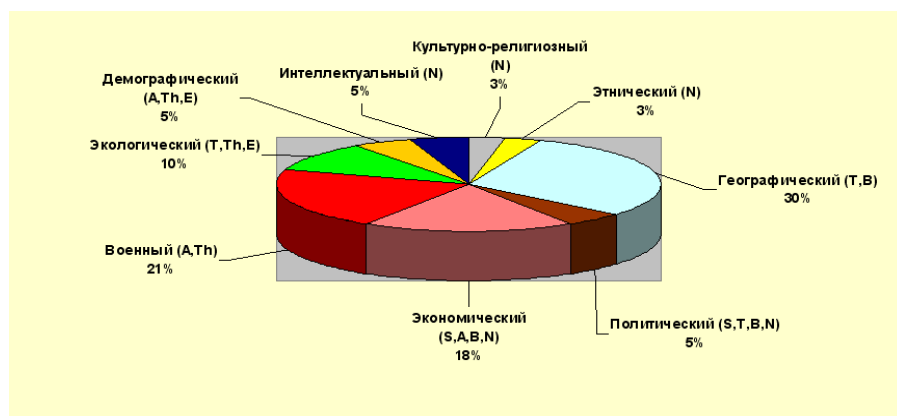


Fig.1 The influence of geopolitical factors on sustainable development of the Arctic

Sustainable management of the regions at the state level has a probabilistic framework is defined by mathematical models, and can be calculated from the value of the corresponding factor, which occurs when an unstable state [8]. Consideration of any regional problems in the modern world must begin with consideration of geopolitical factors. Contact geopolitical factors with the main categories: the state (S), Army (A), area (T), border (B), technology (Th), Nation (N), the environment (E) is shown its corresponding.

Although this table we put intellectual factor applied to one category - Nation, he is directly or indirectly connected with most of the other categories. The current situation poses the problem of the country need to develop a new strategy for regional policy in order to not only maintain their integrity, but also to realize the new geo-economic role in a rapidly changing world. In the current global economic processes to the fore the regional dimension. The erosion of public and administrative boundaries brings to life a new and cross-border cooperation projects that were previously impossible. The analysis of strategic documents of the European Union and the Asia-Pacific region in recent years in relation to the Russian Federation shows that, at least in the medium term, they see Russia mainly as a source of energy and other natural resources, and at the same time as the source of the likely environmental disasters. Strengthening intellectual presence of Russia in the Arctic comes to the fore. The most important among the many factors that determine the innovative development of the Arctic super-region are: geopolitical related to processes and principles of development of states, regions and the world as a whole, taking into account the systemic impact of geographical, political, social, environmental, economic, military, and other factors [3,4].

The geographical factor determining the spatial position and natural resources, in relation to the realities of Russia is the base. Over the past century due to changes in the territory of Russia and new approaches in defining the outer limits of the continental shelf in the Arctic (instead of to the corresponding sector of the Convention on the International Law of the Sea), the evolution of the geographical factor was significant. As a result, the last stage was a significant geographical variations "northerning" Russia in the XXI century. (Fig. 2)



Fig. 2. «Northerning» of Russia in XXI century

Today, we are the most northern country. Therefore, you must decide how to live in the Arctic. This is our home. No shift methods, and we must learn to live here comfortably. Now it is being actively discussed the options of state borders in the Arctic region (Fig. 4), which in turn requires innovative approach not only to the formal definition of borders, but also to the scientific rationale for their change. [12] On the possibilities of development of the Arctic shelf, apparently, it makes sense to speak later, when it will meet our research and technical and technological possibilities. Sectoral principle of partition most beneficial for Russia and Canada. Of the UN Convention on the Law of the Sea littoral states correspond to the boundary 200-mile zone, or determined in accordance with Article 76 of the Convention.

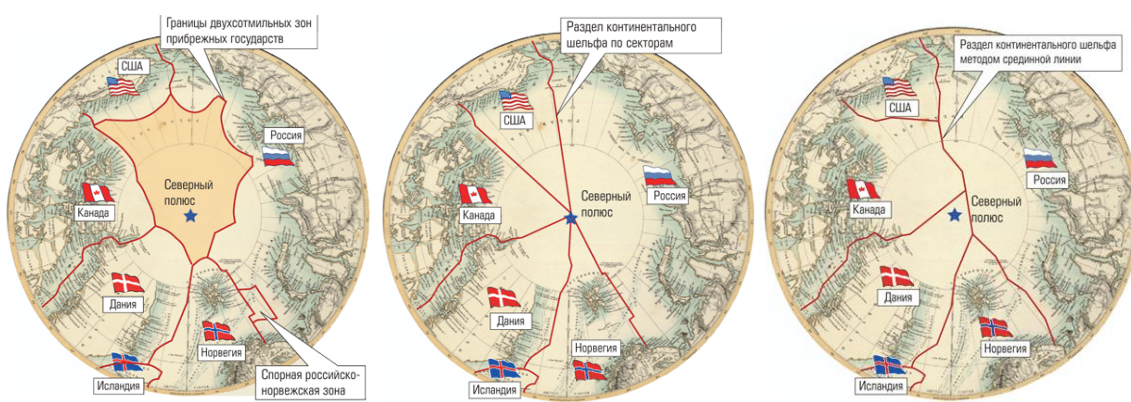


Fig.3. Possible variants of Arctic bounders

On Figure 3. showing the outer limits of the continental shelf, which can be taken in recognition of the respective arguments. It should be emphasized that for a large part of our population, these areas appear to be national, but in fact it only determines the conditions permitting the pre-emptive management of exploration and exploitation of resources in the region. Currently, at the legislative level is not defined territory and borders the Arctic. In the international legal doctrine under the Arctic traditionally understood part of the globe centered on the North Pole, and a peripheral boundary - Arctic Circle ($66^{\circ} 33'$ north latitude). In this case, there are no international agreements that secure a single universally accepted concept of "Arctic". Fragmented legal regime for the Arctic is determined by the national law of the Arctic countries and international legal agreements, mainly in the field of environmental protection.

In Russia there is no uniform act regulating all issues related to the Arctic, however, has repeatedly made unsuccessful attempts to pass a law. Body in charge of the Russian Federation for the Arctic region is in accordance with the Decree of the President of the Russian Federation Ministry of Regional Development of the Russian Federation. Sustainable development of the region knows Ministry of Economic Development. The interests of the Russian Federation on the section of the

Arctic Ocean is the Ministry of Foreign Affairs. Among the Arctic States absent an agreement clearly defining the rights to the Arctic Ocean. At the moment, only two Arctic states have chosen conventional way of delineating the bottom of the Arctic Ocean: Russia and Norway. Canada is preparing his idea of the limits of the continental shelf. United States do not participate in the Convention on the Law of 10.12.1982 and limit the extent of its continental shelf only the provisions of the Convention on the Continental Shelf of 29.04.1958, by which the continental shelf of a coastal State ends where the water depth does not allow the exploitation of the natural resources of the bottom.



Fig. 4. Boundaries of permafrost, influencing on low determination of Russian arctic zone

For Russia's internal need is also important delimitation of the Russian Arctic, which can be scientifically justified and legislated by various attributes, such as the July 10-degree isochor on the border of the respective type of vegetation to record boundaries of permafrost, which occupies more than 60% in Russia etc. It all depends on the purpose of zoning, and since the ultimate goal of this task is to ensure the appropriate allocation of state social support, this approach must be comprehensive. Innovative approach might be considered a scientific substantiation of the spatial parameters of the state, for example, the spatial distribution of the decile coefficient or the Gini coefficient, but from the point of view of geopolitics in today's environment it is not real and can only say that the Russian mission, defined geographic factor is to maintain dynamic balance between geography and handling of the state.

The political factor, which reflects the type of statehood, organizational management structure, the presence of civil society, freedom of the press, etc. must transform evolution without any revolutions, step by step realizing that we can, in order to seek to improve the quality of life of the majority of the population. Promote the harmonization of relations "science-to-business-to-government" on the basis of formation of civil society, the strengthening of the component in developing public-private partnerships and the other is the most important moment in the development of the state. It is appropriate to quote from the book, Lee Kuan Yew, Prime Minister of Singapore, "Singapore Story: From the" third world "in the" first ", which has become the bible for many politicians and economists," Our chances are not fail to be better if we stick to the three the basic

principles that have helped us succeed. This is - social consensus, achieved through the equitable distribution of the fruits of progress. This is - to equal opportunities for all. This - according to merit promotion system .. This is particularly important when it comes to humans, leading the government." It was mentioned above that, even in the justification of the spatial parameters or boundaries commonwealths important is sustainability, without which the quality of life meaningless. The scientists of our Academy performed similar studies [4,6] and one of the approaches is illustrated in Fig.5.

7.

Fashionable "tolerance" - a term that means tolerance, indifference, leading to the irrevocable loss, it is necessary to replace the agreement, equal opportunities for all, the promotion only in accordance with the merits. This is especially important for people heading state institutions.

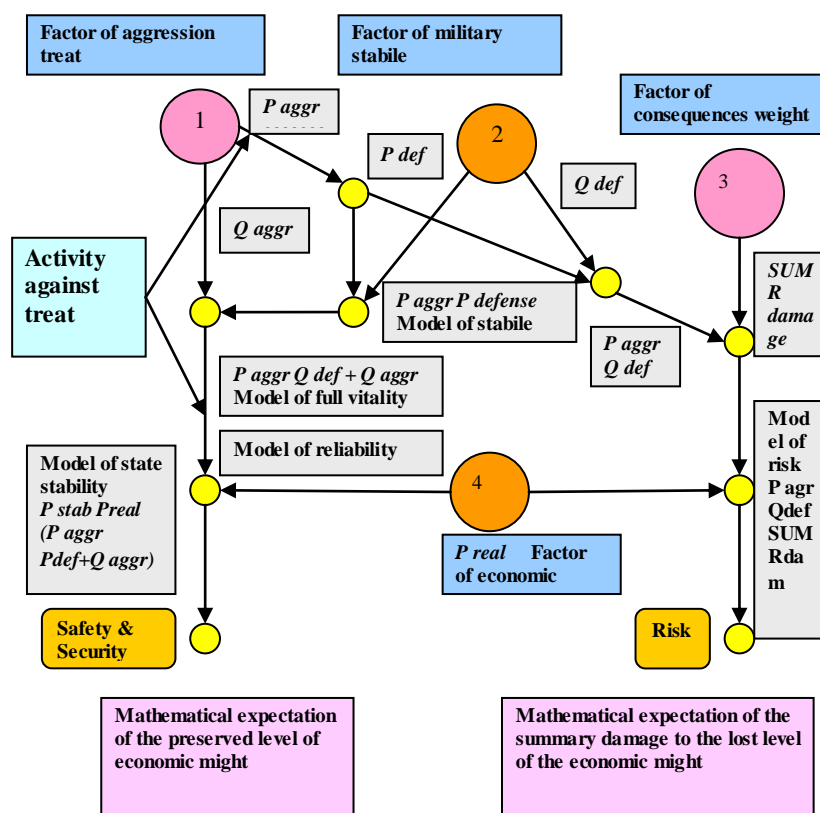


Fig.5. Logical-probability model of Strategically State Sustainability

Code letters "P" correspond to the logical-probabilistic measure of the influence of factors, «Q» - not of this influence, and the lettering indices - the above-mentioned properties. The arrows indicate the logical product of the form entering the vertex factors, and the arrows of the form - the same with the negation "not" relevant factor. Lack of scientific support different levels of the management structure and innovative approach to E-government. As the experience of the state and public information in the developed countries, the project "E-government" is regarded as a set of policy measures and actions to move towards a new qualitative state of governance and power, providing a stable state historical perspective and competitiveness among the institutions of the society of the

information age. "E-government" acts as an innovative technology in the transformation of the traditional bureaucratic organization of government and the state. In the process of information creates a new model of governance in which management information is generated in real-time, and "experiments" conducted not on real people and social groups, and in the mode of "conditional modeled in the information system (virtual) social and economic conditions and processes." One such innovative option implemented by members of our Academy of Administration of the President, and may be offered the northern regions. It can be argued that the ***Russian mission determined political factor is to maintain a dynamic balance between state security and national interests in this region .***

The economic factor is determined by the standard of the people living, manufacturing facilities, agricultural facilities, transport infrastructure, communications, and infrastructure, mobilization capacity. This is the most important factor in determining the content and form of inter-regional and intra-regional cooperation. The evolution of the economic factor suggests that the main factor in winning the "battle for the Arctic" will be to ensure a high quality of life. [3] If the quality of life in the region is growing slower growth, then there is the colonial character of the interactions, disease of the economy. Our results produced a comparative analysis of the quality of life in terms of health on the basis of the international system of sustainable development indicators are shown in Figure 6.

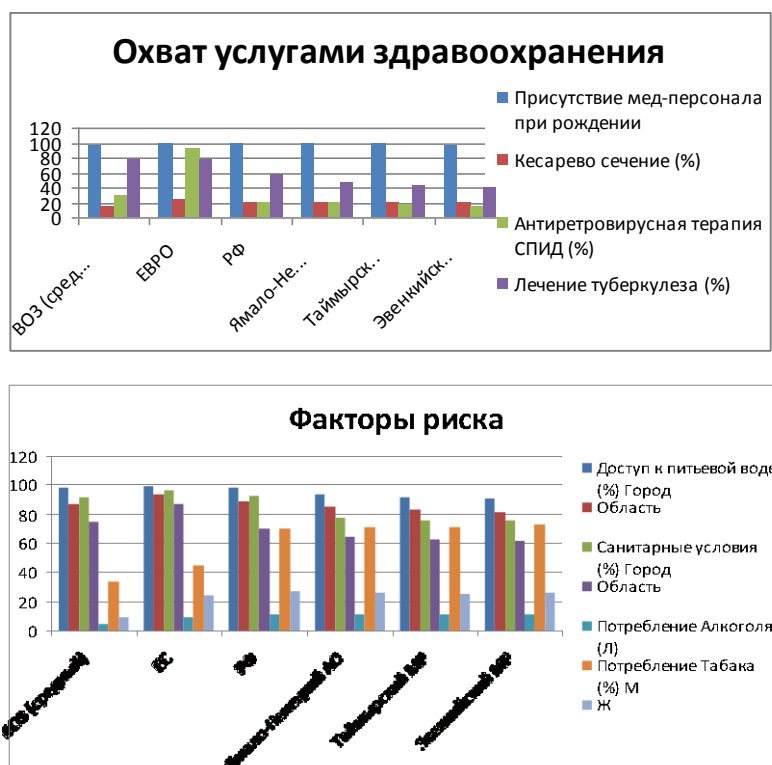


Fig. 6. Results of comparative analysis on some indexes of life quality for three northern regions of Russia and country EU

The efficiency of the national economy and the development of civil society in Russia as a whole depend on the extent to adhere to the principles of social justice in all spheres of public life, including in the economic relationship. Amount of the personal income of the population is the most important

factor of social differentiation, the extent of which can be judged by the values of the deciles ratio and the Ginny coefficient. The deciles coefficient of income inequality shows how many times the minimum income provided 10% of the population exceeds the maximum income of 10% of the poorest population. If the deciles ratio is greater than 7 are needed transformation in social relations, and in Russia it is 16 and in the Scandinavian countries - 4 in the European Union - 6, in Japan and North Africa - 6 in the U.S. - 9. For the transition of the Russian economy of the 1990s. was characterized by the growth of income inequality indicators. The deciles ratio increased from 5.4 at the end of 1991 to 13.4 in 1995 and 13.5 in 1998, in recent years - an average of 14 times.

Tyumen oblast since the beginning of market reforms and to this day is a region with a high standard of living. The experts of the UNDP report "Regions of Russia: goals, problems and achievements" of the richest regions of Russia was carried to Moscow, St. Petersburg, Tyumen oblast, Tatarstan. Experts point out that "the standard of living they can be compared with European countries such as Malta and the Czech Republic. The "poorest regions - such as, for example, Tuva or Ingushetia, have a standard of living comparable to Tajikistan or Guatemala." Scientists National Center for life as a result of complex economic analysis also includes the Tyumen region to regions with a high standard of living, but at the same high level of socio-economic inequalities. In [7] made an attempt to understand how truly high standard of living of the population.

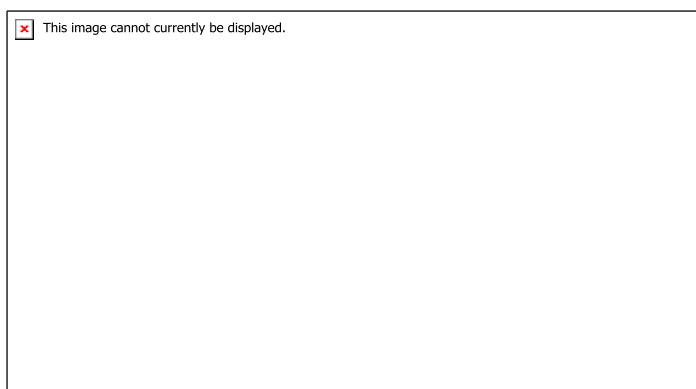


Fig. 7. Dynamic of absolute and relative poverty for Tyumen oblast (including okrugs)

Note that in the EU relative poverty rate in 2006 was 16%. The highest value of the index of relative poverty was in 2006 in Latvia - 23%, Greece - 21%, Spain, Italy and Lithuania - 20%, and lowest in the Czech Republic, the Netherlands, Iceland - 10%, Norway - 11%, Denmark, Slovenia, Slovakia, Sweden - 12%. In "The Crisis and the modernization of Russia," the academician Nigmatullin R. speaks Russian as a family with unreasonable parents. "In this family, almost all parents earned money given to one of the" most favorite "child who spends it on the fun. As a result, the rest of the children and the parents themselves almost nothing even for food to maintain their strength. And the main problem is that parents do not have enough for food, they become weak, worse working and will soon lose their jobs. Hurt the whole family, including the "favorite" child, the name of which the distribution of balance the family budget. "The staff of the Institute of Social and

Economic Studies of Population analysis gave Rosstat data for the last 17 years have shown that *excessive inequality reduces the rate of economic growth*.

Because the dynamics of income usually coincides with the dynamics of the standard of living, the shift in consumption patterns can be used to measure the standard of living of the population. In determining the Ginny coefficient is based on a principle of perfect equality, which implies that 1% of the population should receive 1% of the total income of the society. According to one of the following classifications exist scale of degrees of inequality: the economy is very low (the Ginny coefficient is equal to 20-22%), low (24-26%), medium (29 - 31%) and high (33-35%) degree of inequality. Ginny coefficient in Russia in 1991 was 26%, in 1992 - 28.9%, in 1994 - 40.9%, in 1998 - 37.9%, in recent years, its value is an average of 39%. In a relatively short period of Russian history in terms of socio-economic differentiation was on one of the highest among industrialized countries. According to the degree of income inequality Russia is adjacent to the group of developing countries, as evidenced by the Ginny coefficient. For example, the Ginny coefficient in the U.S. is 0,408 in the UK - 0,361 in Sweden - 0,250 in Japan - 0,249 in Zimbabwe - 0,568, in Mexico - 0,537 in Chile - 0.565). Such a deep and rapid stratification of the population by income level were not aware of any one of the modern world. The share of the population living below the poverty line. In such circumstances, the continued commercialization of education, health care and housing and communal services leads to a further reduction in the quality of life of the vast majority of population suffer demographics, deteriorating health status of people losing their positions enlightenment and education. Increasingly, there are labor and social conflicts, ultimately enhancing social tensions.

The mutual influence of the factors is also an important element, since the deciles ratio (the whole of Russia - about 12-14), surpassing the limit of social tension in society (for the world of practice about 5-7), apparently offset by other factors, such as intellectual, which is proposed to introduce into consideration. If the excess of the deciles coefficient does not lead to the bifurcation, the mutual influence of other factors compensate for it. Therefore, we consider all nine factors in determining the sustainability of the state in general and the region in particular. And for each construct a probabilistic characterization of control. In this case, the probability characteristics of the Russian mission in the Arctic. Joint curve is a measure of how to avoid failures, revolutionary option development. Significant changes in the social differentiation and responses of the population can become a social constraint, a barrier to economic reform. The economic and social dangers inherent in the differentiation of this kind, speak in favor of innovative policy changes that would create the conditions for compliance with social justice in economic relations. Scientific substantiation of such conditions and to find ways to implement them is an urgent national priority.

Arctic Academy of Sciences is working with a number of institutions and the territorial aspect, and the transport system. We are talking about the development of not only the Northern Sea Route (Figure 8), but the transcontinental highways in the east-west direction (Figure 9). Creation of an

integrated transport system in the Far North - one of the most important public policy objectives, including the solution of a complex of scientific, technical, engineering and organizational problems. Without an innovative approach to achieve substantial development of the northern transportation system possible.

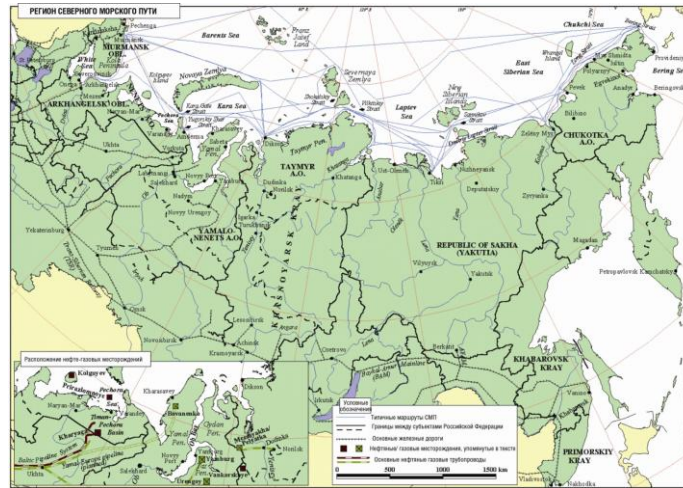


Fig.8. Transportation system of NSR



Fig.9. Trans-continental main roads of latitude direction

Sustainable urban development in the XXI century to solve two problems, the problem of intra-urban transport, associated with a huge number of private cars and the construction of parking garages and the problem of creating a unified transport system of the northern cities. All the rivers of Siberia, originating in the southern latitudes, carry their water in the Arctic Ocean are the meridian lines of communication. In addition to the Trans-Siberian Railway, located in the temperate latitudes, in the North there is no east-west transport links, with the exception of the Northern Sea Route and the Baikal-Amur understudy who can not fully protect our northern territory. Only in the European part of

Russia create a unified transport system of communication northern regions with the central regions by means of the railway network in conjunction with river, road and sea transport, recovery and the Russian icebreaker fleet-round action of the Northern Sea Route will ensure delivery of heavy equipment and products in the north of the country, and in combination with the riverboats "river - sea" will promote the sustainable development of the existing major centers of the north-east Siberia, the base of cities and camps during the development of northern resources.

These changes are areas of developing natural and energy resources in Russia increase the importance of the Northern regions of the country and the Arctic shelf that need to increase economic efficiency, speed and regularity of maritime transport. The upcoming development of oil and gas fields in the North Sea, the use of the shortest sea route between the ports of Europe and Asia led to an integrated transport problem, including addressing three main objectives: removal of hydrocarbons from the Arctic in the Asia-Pacific and the Atlantic regions; importation of petroleum products, industrial and food goods in the Far North; transit costly and time-sensitive cargo shipments from Europe - Asia through the Arctic Ocean on the high-latitude routes (Fig. 10), including the aforementioned trans-pol underwater highway.

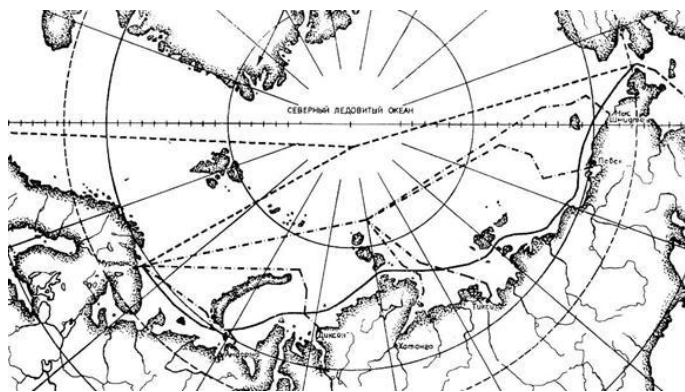


Fig. 10. Expected routes of underwater transport bouts

Expected development of the underwater vehicle fleet in Russia due to a number of causes: the development of the Arctic shelf, a revival of the North Sea Commercial Way, conversion shipbuilding industry, disposal of nuclear submarines (NPS), etc. During 60-90 yy NPS is almost constantly in the Arctic seas, systematically committed transarctic transitions under the ice. In the area of submarine voyage includes the Central Arctic basin, the marginal shelf seas and navigable straits. Noteworthy examples of such: while ice diving depth under the keel of the NPS in a number of cases reached 4.6 meters, the gap between the wheelhouse and the lower edge of the ice was reduced to 3 meters. As a promising areas can be specified on the Northern Sea Route (NSR), the International Highway EUREKA, string transport, Aeronautical transport and off-road vehicles on the low-pressure tires.

The project is eco-city in the north of Yakutia, designed by the architectural agency "AB Alice" and will be erected in the town of Mirny in Yakutia. The project, called "Eco-city 2020" includes the construction of a huge building, which will be located inside the crater, and will have the name "Lucky kimberlite pipe." The opening of the tube was made in 1954 by geologist V. Shchukin A little later,

was erected near the village successful and ore dressing plant. It was in this pit, which has already fulfilled his own, decided to create a town-building complex "Eco-city 2020". The diameter of the giant crater of up to 1000 m, and its depth - 550 meters, it is surrounded by permafrost. For the construction will need to use the latest technological and scientific knowledge that will help build a garden city that will attract new settlers and tourists in Siberia. Under the terms of the project, the city can accommodate up to 100,000 people. "Eco-city 2020" plan to split into 3 main levels, which will be residential areas and areas for recreation and entertainment. The city will be protected from the adverse effects of the harsh Siberian climate. One of the features of this project is the roof made of glass and solar cells that protects the city. Because the temperature of the earth in a confined space will be more climate would be softer than the outside of the dome.

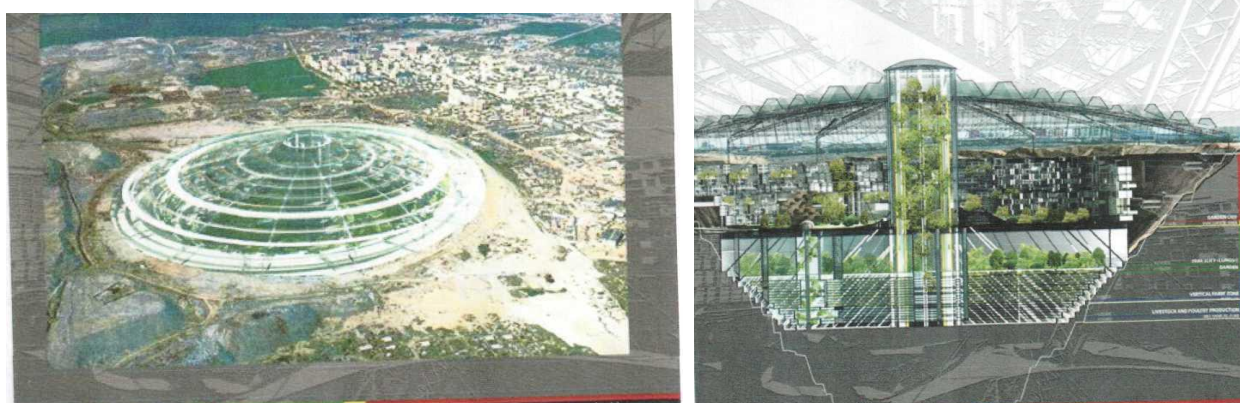


Fig. 11. Eco-city «Kimberlite pipe Udachnaya»

Other innovative projects can become autonomous planetary settlements in the Arctic as in the lower aqueous and terrestrial hemisphere. It can be argued that the *Russian mission, determined by economic factors, is to maintain a dynamic balance between the components of society harmonization of various sizes in the region.*

The military factor is determined by the level of development and combat capability of strategic forces and conventional forces, the development of logistics infrastructure, the level of training, international agreements on the limitation and reduction of armaments, the degree of militarization of the country.

The evolution of the military factor in the Russian Arctic zone is significant: from the creation of airfields in the Arctic ice in 1930., Concentration in the region of naval strategic nuclear forces of Russia and other states in the 1970s to increase the military presence of serious United States, Norway and other countries NATO in the Arctic in recent years. In the near future in this region can be expected to develop robot-like groups for the implementation of the various actions, including war, preparing to conduct network-centric warfare with the use of various types of non-lethal weapons. The role of the Republic of Sakha (Yakutia), as advanced outpost in the Arctic region is extremely high [5,10,11]. In other words, now the battle for the Arctic escalates. The Federation Council finalized the

draft law "On the Russian Arctic." Some people believe that the real fight for the North Pole and its resources, fraught with almost the beginning of a new cold war escalates in 5-7 years. Experts believe that Russia should not relax and must now enter into negotiations with the other claimants to the Arctic - Norway, Denmark, Canada and the United States. That Russia and the four states, according to the UN Convention on the Law of 1982, which had the right of priority to the development of the continental shelf, which is an extension of their territory within the exclusive economic zones. It is possible, however, that the range of applicants will soon be complemented by China, which exhibits a natural tendency to move into the region. This may be better, experts say, Russia to negotiate with the Europeans, with whom you can also work together on the shelf.

Arctic, finally a lone global players on the international arena, it is not only the main reserve remaining stocks of industrial raw materials and energy, but also a cause of potential armed conflict for their possession. Even during the "Cold War" polar region has been the scene of so fierce struggle. Due to global warming, the melting of the promises of ice in the Arctic converged economic interests of a number of coastal states (USA, Denmark, Norway, Russia, Canada), the Government of each of which treats international maritime law to their advantage. The stakes are too high - under the polar ice could be up to a quarter of the world's oil and gas. And, although the real "war for resources" will begin only after several decades, it is inevitable. Indeed, in the Arctic almost all the activities in one degree or another connected with the interests of the military security of the Arctic states. Of course, the region is of great strategic military importance for solving the problems of defense of Russia. Here are based forces chief fleet of the country - Northern Fleet is its operating area, concentrated number of important defense industries. The state border of the Russian Federation for nearly 20,000 kilometers passes through the Arctic Ocean. This is the most open in terms of the direct control of the state border strip and the front line of defense of our territory, its protection and conservation are special difficulties.



Fig. 12. Zones of geo-strategic withstanding on Russian continental shelf.

Conflict regions: Region №1. Russia – USA; Region №2. Russia – Finland, Sweden, Poland, Baltia; Region №3. Russia - Norway; Region №4 Russia – Canada, Norway, Denmark, USA; Region №5 Russia – USA; Region № 6 Russia – Japan.

Acute acquired inter-state relations in the shelf area of Svalbard, in accordance with the Treaty of Paris in 1920 Russia has the right to fishing mining, actually produces them near the village of Barentsburg (coal mining). It is assumed that there are significant reserves of oil and gas fields on the shelf. Every year in the region Russia produces between 45 and 105 thousand tons of cod, haddock, herring, perch, halibut, blue whiting and other species, accounting for more than 20% of the annual catch of the Russian fleet in the Barents Sea. With the growth of the capelin stock share of the Russian fishing increases to 50% and catch up to 250 tones. In the same area Norway catches 50-100 thousand tons, in some years up to 250,000 tons. Currently, in the Spitsbergen Treaty with about 60 fishing vessels of the Northern and Western basins.

The widespread use of underwater robots for various purposes in the global national system of information support and management is an integral part of modern foreign concepts conducting offensive military operations and industrial development of the occupied territories of the sea. Already in the short term, 2015 – 2020yy, will significantly improve the reliability of the control for the air, underwater, surface and ground conditions in the coastal and remote areas of the ocean (sea) theater, and significantly expand the area of the projection capabilities of strike forces of the fleet and the fishing activities of oil and gas and other extractive companies.

In the protection of fisheries is currently planned use of robots:

Micro - and small, easy to carry out comprehensive monitoring of the current status of marine fisheries areas;

Medium and heavy (weight up to 6,000 kg) for the protection of marine sites from unauthorized access and suppress terrorist acts (identifying the sources of the terrorist threat, anti-submarine reconnaissance, patrolling, securing drilling platforms, monitoring them, and their neutralization, including destruction).

Prospects inexorably approaching another world military-political crisis due to a lack of energy, raw materials, food, and water in overcrowded planet, the current urgent need to fill the dwindling stocks of terrestrial minerals resulted in the beginning of the twenty-first century, a significant intensification of human activities on the shelf seas and oceans. Achieved to date level of subsea technology geopolitical and geo-strategic competitors Russia on the world stage, points to the need to accelerate the development of the national underwater robotics [13].

The vital task of providing such a reliable underwater as geological exploration, surveying and mapping of the bottom topography in the areas of future trades, construction and inspection of engineering structures and communications, search and examination facilities in areas of deep accidents, environmental and biological research in the marine waters of the continental shelf, the protection of crafts is on the agenda the day before our scientists, designers.

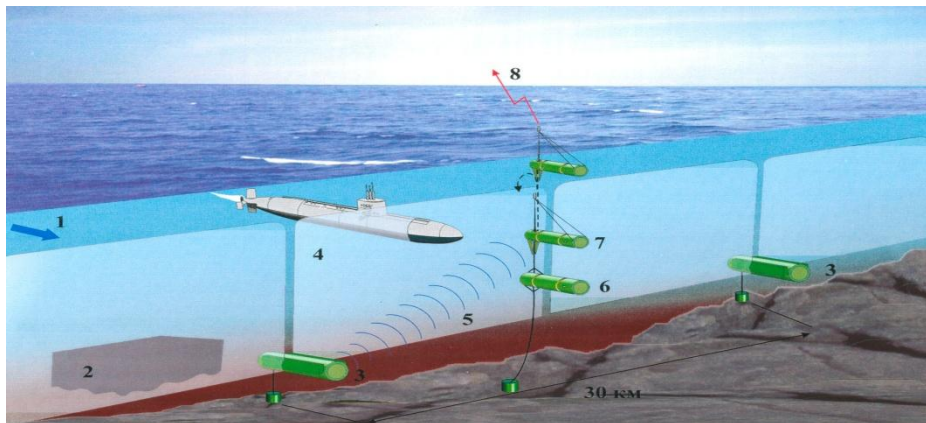


Fig. 13. Protection of sea zones on base of mans concern

“Sea Underwater weapon – Hydropribor» [13]

Oceans is increasingly becoming a medium of military confrontation, which can move quickly and secretly supports nuclear missiles and conventional precision weapons, missile defense, amphibious landing forces, reconnaissance and surveillance. In the future, inevitable increase in the number of weapons of strategic, operational and tactical reach placed on robotic combat platforms. Dramatically increases the geopolitical role of coastal regions in the world politics. Currently, about 60% of world's population lived in the distance of 60 km from the coast and the ratio is likely to increase to 75% by 2025. Of the 23 largest metropolitan areas of the Earth 16 are in the coastal zone. Focus on the development of ocean resources and the maintenance of economic activity in the economic zone is one of the factors contributing to the maintenance of the Naval Doctrine of Russia in XXI century, a number of features.

The development of transport systems between intensively developing Pacific and European regions in Russia involves improving northern communications, the operation of which, taking into account the national interests of Russia becomes effective if the Naval security in the region, also implements the relevant provisions of the Naval Doctrine of Russia. One of the areas of advanced weapons, including peacekeeping and antiterrorist is the creation of non-lethal weapons, under which the Russian Federation refers to funds that can neutralize or to deprive the enemy (terrorists) capabilities to conduct combat operations by the scrapping of the personnel or materiel, minimizing deadweight loss, mutilation of personnel and damage to the infrastructure or the environment. In the international system of counter-terrorism capabilities of national, regional and global security must address the problem of monitoring threats to the security of the scale, the command and control in operations, coordination in the operations of an appropriate scale. Given the concentration of efforts of Humanity in the coastal zone, it can be argued that the role of the Navy in the solution of these problems will increase sharply, and a qualitative change in manpower and resources will inevitably affect the content of the naval doctrines of the major maritime nations, including Russia.

In addition to these you can point to a number of factors that are not directly related to the

content of the Naval Doctrine of Russia, but the impact on the strategy for its implementation. This refers to the environmental, social, ethnic, information and certain other conditions, concomitant activities of the Navy of Russia in the coastal and oceanic zone. ***The mission of Russia determined the military factor is to maintain a dynamic balance between the components of the global, regional and national security in the region.***

Ecological factor is determined by population pressure on the limited resources of the territory, the depletion of natural resources, poisoning and destruction of human life support systems, vegetation and animal life, the accumulation of radioactive, toxic, explosive technology, natural disasters.

Specificity of the transition to a sustainable development of the Northern territories is due primarily to the fact that Russia - the only country which is above the Arctic wide-scale economic activities under extremely high vulnerability of nature. The long-term consumer approach to the development of space and resources of the Russian Arctic zone (AZR), excluding the impact of the nature of an activity on the environment has led to the formation of local regions (West Kola, Norilsk, etc.) of high environmental stress. This required a rapid transition to a different model of development of the productive forces. Environmental situation complicated the beginning of development of the huge reserves of hydrocarbons, which opened a new phase of service AZR. A new model of development in the region is to eliminate the inertia of the Soviet period and to take full account of the nature of the modern political system of the country. Such a model should take into account not only the changing domestic and international conditions in the AZR in general, but also new and promising targets (including national security of Russia in the region).

The evolution of environmental factors for the Arctic as a whole and for the region, in particular, the specific reason for the increasing anthropogenic pressure on the environment. It is necessary to consider the wider environmental problems such 10 indicators such as the impoverishment of soils, pest infestation, disease, decrease of water resources, fires, flooding areas, landslides and soil shifts, the attacks of wild animals, changing weather conditions, changes in the properties of plants. One of the main goals set out in the "Principles of State Policy of the Russian Federation in the Arctic," is to ensure the environmental safety - the preservation and protection of the Arctic environment, the elimination of the environmental consequences of economic activity in the face of increasing economic activity and global climate change, developing a plan of action to eliminate Arctic pollution and the protection of the Arctic seas of Russia from anthropogenic pollution, the reduction of emissions and discharges of polluting substances from industry, rehabilitation of contaminated sites and fight against cross-border transfer of pollutants to the Arctic, utilization and disposal of radioactive waste, disposal of decommissioned nuclear submarines and icebreakers; the fight against the destruction of the ozone layer and its effects; assessment of potential environmental impacts of oil and gas resources of the Arctic shelf, the development of methods to combat accidental oil spills in the Arctic seas. As long as there are no forces and means to clear all the waste from the Arctic previous

human activities in these areas. According to Arthur Chilingarov at the St. Petersburg Forum "The Arctic: The Present and the Future", the first steps on the "capital-cleaning" of the Russian Arctic. "Alexandra is completely cleared of debris, barrels, waste activities of the Ministry of Defence at the airbase Nagurskaya. And the second island - Gray-Bell. It is five times more. Further task - cleaning from debris, which affects the environment."

Environmental disasters in the Arctic will affect the entire globe. During the drilling of wells is different marine pollution management. According to experts, depending on the technologies of production and the depth of the sea, each well can be discharged into the sea up to 120 tons of oil, 150-400 tons of drill cuttings and 200-1000 tons of other waste. For disposal of these wastes is necessary to develop new and innovative methods. Development of the resource base of the Arctic zone of the Russian Federation shall be through the use of advanced technologies, the development of efficient and environmentally friendly means and technologies. The main measures for the implementation of state policy in the field of environmental security in the Arctic are: the establishment of special regimes of natural resources and protection of the environment, including monitoring of pollution, restoration of natural landscapes, disposal of toxic industrial waste, chemical safety, especially in areas where population.

Energy supply businesses in the north-eastern region of the Russian Federation is one of the vital issues of survival in the harsh conditions of the Arctic. In terms of the use of clean energy is very promising is the construction of floating nuclear power electro-stations and placing them along the northern coast of the Russian Federation (Figure 14). JSC "Baltic Shipyard" and "Rosenergoatom" signed an agreement on the completion of the floating power unit first floating nuclear power station "Academician Lomonosov", which is to hand over the September 9, 2016. The first floating nuclear power plant planned to be installed in the Chukchi Pevek and Kamchatka Vilyuchinsk. In the foreseeable future, the region plans to accommodate three floating nuclear power plant. This imposes additional obligations on the organization of radiation safety.

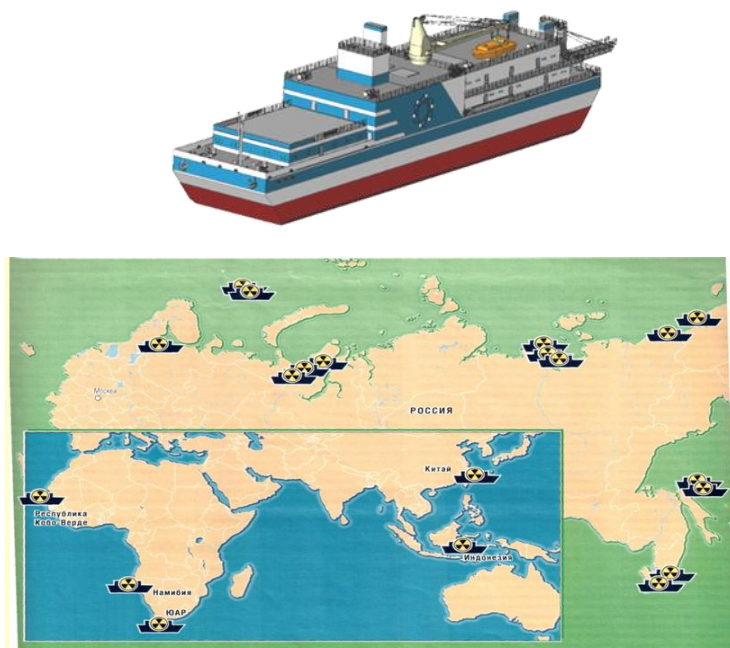


Fig.14. Prognosing disposition of FNPP.

Construction of floating nuclear power plant - the best option power supply isolated northern regions of the Republic of Sakha (Yakutia) and other northern regions.

Solved the problem:

- To provide reliable and economical electricity and heat supply of settlements and industrial facilities in remote areas of the Republic;
- Reduction in northern delivery of fuel;
- Limiting the rate of growth of tariffs for electric and thermal energy for households and industry in isolated power junctions;
- Creation of infrastructural conditions for socio-economic development of the northern regions of the republic.

The advantages of floating nuclear power plant:

- Unit capital costs are comparable with specific capital costs of energy sources to fossil fuels - 160 thousand rubles. / KW;
- Effective selling rate - about 3 rubles / kWh (in 2007 prices);
- Short construction period (approximately 3-3.5 years in serial construction);
- Depreciation of operation compared to conventional energy sources;
- Mobility (the ability to accommodate almost any coastal zone and in the beds of large rivers).

The obvious is the need for innovative approaches to solving environmental problems in the Arctic and the *Russian mission, determined by an environmental factor may be the maintenance of a dynamic balance of influence on the environment between natural and anthropogenic influences.*

The demographic factor is determined by the composition of the population and the pace of its development. Features of the evolution of this factor is determined by the global trend: a sharp rise in

population in the southern regions (up to 146% in Africa, 59% - in Latin America, 57% - in Asia) and slow growth - in the north, as shown in Fig. 22. This will inevitably lead to a change in the composition of the population in the northern regions. Hailed as the idea of "tolerance" if not completely collapsed, it has been very inconsistent in Germany, France and other EU countries. Although the North, because of the special natural conditions has always been socially tolerant, we can assume the existence of problems in the near future. Innovation should be the focus here is not the principle of tolerance and harmonious relations of the indigenous and migrant populations through the adoption of strong traditions in the region. It is appropriate to data from the Institute of Social and Political Studies ten years ago, that are relevant today [14].

The drastic change of political and economic status of Russia that took place in the early 90s, accompanied by a change of its place in the global demographic space. Russia, a member until the top ten most populous countries in the world, has moved in this group over the past 10 years, from the 4th to 6th place, and by 2050, while maintaining the same demographic trends, Russia is on the 14th place in the same row with the Philippines, Turkey, Japan and Egypt. Of course, in today's world do not depend on the number of population and economic power of the defense potential of the country, it does not determined by the status of a great power. However, this parameter acts as fundamental to characterize the place occupied the country in the international community, together with its level of economic development. Both are a criterion for the assessment of its economic and political influence on global processes.

Russia due to its geopolitical position in all periods of its history, played a stabilizing role in the Slavic geopolitical space, defending the common interests of the Slavic world. Currently this role, unfortunately, is also weakening, and not only in the political and economic, but also in the demographic sphere. The United Nations estimates that by 2050, the total numerical of the Slavic population of decline from the current 300 million people, claim to 282 million, and the share of Russia in her fall from 52% to 47%. The decrease in the share of Russian Slavic ethnic group is due not only to the fact that it has the lowest of all the Slavic countries the birth rate, but also the fact that it has the worst of these mortality rates and life expectancy. (The total fertility rate in the first half of the 90s in Russia amounted to about 1.5, and in Yugoslavia - 2.6, in Poland and Slovakia - 1.9. Life expectancy there has exceeded the average Russian level for 3 - 5 years .)

Since the end of the last century in Russia began the process of depopulation - the natural population decrease due to the prevalence of deaths over births. The specifics of the Russian depopulation is that, unlike some Western countries, where negative natural increase is associated only with the low birth rate in Russia against the background of a low birth rate has been steadily increasing mortality. One would assume that the reason for the adverse change is an ongoing process of population aging, which intensified in the early 90's because of the reduction in the number of children and adolescents under the age of 15 years. However - and this is the tragedy of the current socio-

demographic situation - a major influence on the increase in mortality have sharply increased losses are not elderly, and the working population. Currently, the share of working age in the total number of deaths reached 30%, while at the turn of the 80th - 90th year, it ranged between 25 - 26%. A total of all deaths rank first cardiovascular diseases. On the second leading cause of mortality, and it can be called Russia's "sensation", came out non-cancerous diseases (both worldwide and as we still do), accidents, poisoning and injuries. This group includes such things as murder, suicide, accidental alcohol poisoning, injuries. Deaths from these causes is a pronounced social dimension and is an indicator of progressive trouble in society [14].

Particularly detrimental to the demographic potential of the country is that of all deaths in people of working age accidents, poisonings and injuries took first place. And for men it is the cause of death of each of the second, who died at that age. In Western Europe, the U.S. and Japan, the level of premature mortality of able-bodied men in the 2.5 - 4 times lower than in Russia. The structure of loss of health in Russia combines the worst features of both developed and developing countries. In developed countries, it unites, on the one hand, the high frequency of chronic diseases that are the major causes of morbidity and mortality of cardiovascular and cancer. On the other hand, the frequency of conditions in the etiology of which the great role of the socio-economic conditions (sociopaths) mental illness, alcoholism, drug addiction fast-growing, self - kills, anti-social and criminal behavior. In developing countries, we are united not retreating problem infections, tuberculosis, parasitic diseases, injuries and poisonings. In general, the health of the population forecast today - it's pretty much a reflection of our optimizma about the prospects for the overall socio-economic situation.

In the US., health care costs from 1965 to 1990 increased from 6% to 12.2% of the national product, which is based on one person representing an increase of 204 dollars to 2500 dollars a year. In our country, is bucking the trend is allocated to health facilities decreased over this period from 10% to 2 to 3% of the gross national product . Naturally, therefore, that at very close to the level of developed countries, the prevalence of severe chronic diseases we are incommensurate heavy losses in health and life expectancy of the population. Patients with cardiovascular diseases and cancer are living in our country, an average of 6 - 8 years less than in developed countries.

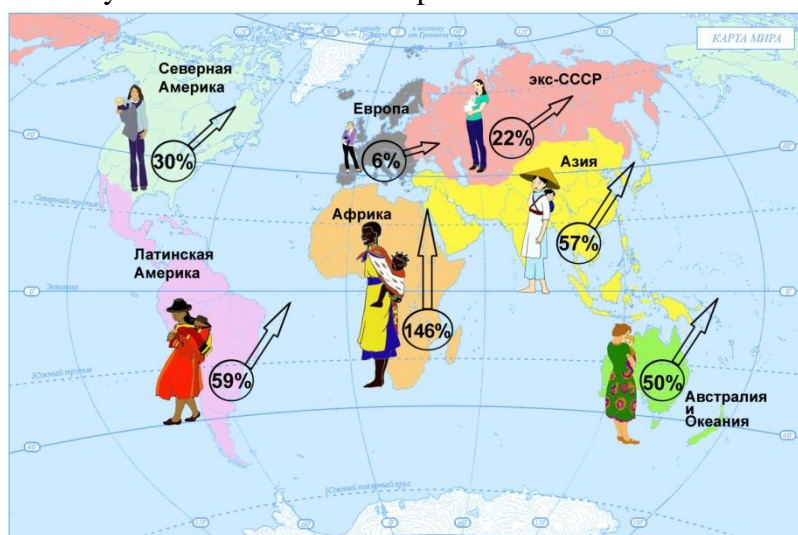


Fig. 15. Change of correlation between different groups of globe population.

The influx of migrants arriving in Russia from all the former Soviet republics, is distributed throughout the country unevenly main migratory pressure has to withstand the North Caucasus, Volga and Central economic region where migrants exacerbate an already difficult situation in the market and a pile of housing. On the contrary, the outlying regions of the country - North, East Siberian and Far

Eastern economic region - intensive lose their population. This trend, according to forecasts, will continue on. Previously, there was an increase of the population of the marginal Russian regions, driven by "northern money," numerous benefits that contribute to the flow and survival of new settlers, especially if the problem of economic development of the North and the Far East was considered a national problem, since the end of the 80s the situation changed in the diametrically opposite direction. Return migration from the northern and Far Eastern District assumed the character of an extremely worrying trend. So intense out-migration not only makes it impossible to reproduce the population, substitution of labor, the further development of the northern and Far Eastern regions. Against the backdrop of events such as the massive uncontrolled population of Chinese and Koreans, Eastern Siberia, the Far Eastern regions ad zone of strategic interests of the U.S. and Japan, the territorial claims of a number of countries in the Asia-Pacific region, there was a danger of a new geopolitical situation, development options which have not yet been calculated.

Must be borne in mind that, with vast territory (1 / 8 area of the globe), Russia remains a sparsely populated country. At the national average population density of 8.7 persons per 1 sq. km. km dense population today is in the North 4.1 people in Eastern Siberia - 2.3 people in the Far East - 1.3 people per 1 sq. km. km including the Republic of Sakha (Yakutia) - 0.3 person in the Chukotka Autonomous District - 0.2 person in the Kamchatka region - 0.9 persons). No country in the world people do not live as "spacious". In Europe now accounts for 31 people per 1 sq. km. km area in Africa, Latin America - 21 in North America - 13 in Asia - 100. (It is projected that in Asia by 2050, the population density will rise to 181 people per 1 square. Km.) Considering only the figure in the geopolitical context, it is easy to understand the reason for such active pursuit, for example, the Chinese gain a foothold on our Far East.

Therefore, the optimization of the demographic development - these are issues of survival of the country as a whole. By contrast, modern and projected for the near future demographic processes (depopulation, low birth rate, increasing mortality distorted structure of the population, the deterioration of the quality characteristics of the demographic potential) not only does not correspond to the geopolitical interests of Russia, but rather contradict them. Long-term social and economic consequences of demographic crisis in Russia are obvious. In the economic sphere, this change in the total number of economically active population, aging workforce, increased dependency burden on the labor force seniors and the elderly, and thus increase the share of public expenditure on the maintenance and social services for the elderly and disabled, reducing territorial and professional mobility of labor resources (such required under conditions of structural perestroika national economy), the growing shortage of manpower for new areas of industrial development, for the development of new industrial technologies for low-prestige occupations and activities.

In the military and defense sectors will inevitably reduce the number of young people of draft age, the reduction of the population and its density, which is the most dangerous in the border areas of the Far East in a strong immigration pressure from neighboring countries that are poor for the free development of territories and the pressure of surplus population. Analysis of the status and trends of demographic processes and their causes evidence of the impossibility of stabilizing the demographic situation in the country without having to overcome the socio-economic and political crisis and the subsequent recovery of the economy and improve the living standards of the population.

Relationship of demographic, economic and political factors in Russia is undeniable. In order to coordinate the implementation of all of these areas of social policy at the federal and regional levels to speed up the development of the concept of long-term demographic development of Russia and the draft program of priority actions in the field of peoples Population and Development of the Russian Federation. Russian mission, defined demographic factor is to maintain a dynamic balance between the components of the society of various sizes in the region.

Cultural and religious factors determined by the faith-based, national, cultural, labor traditions. Here you need to consider how the traditions of the indigenous population, and appeared in a reasonable period of history of people from other regions. Culture should illuminate the road economy, otherwise the last wandering in the darkness. Cultural and religious factors determines the integrity of the Russian state, as the only creativity permeated search for the meaning of life. The man, alienated from the culture actually becomes a criminal. Since culture is the foundation of the national idea, dehumanization of politics and economy led to the collapse of the state. Can be called innovative revival following this principle for fundamental nature of statehood. This factor was the backbone in the formation of the association "Maritime Heritage of Russia", one of the founders of which was the Academy. Northeast Region occupies a significant place here.

Cultural and religious factors - the shadow world (modeling religions). People forced into the state of faith in the fact that somewhere in heaven there is a struggle of the gods. There are some evil, wicked god who wishes to all the evil in the world and is looking for men-servants-adherents. Next, the various methods of the master achieves that supporters of different gods suspect each other in such a adherent. the overthrow of the idols of their god, they are not seen as the victory of good over evil. Cultural and religious factors - notably the impact on large numbers of people into its historical moral and cultural foundations. Mostly it comes to religion, as the most effective means of influencing the human mind over the past couple of millennia. It must be understood that each of the people in power again, historical cultural and moral norms is (or is not) certain restrictions on behavior and development. Certain boundaries, which does not allow cross adopted morality in society. And, often, these restrictions are only formal (10 or more of the commandments, all sorts of moral codes, etc.), and sometimes a very significant effect on the choice of development path. And it also can not be discounted.

It seems appropriate scientific justification, for example, the scale of the network of places of worship and it is not idle question today when replacing traditional religious lines in these regions come "demonic" preachers, filling the void of religious influence. Referring to the spiritual realm this fact suggests so thin, delicate to do with it, how do the spiritual world more complex and rich material. This is a great and a separate area.

Traditional world of Siberia - Shamanism - is a special form of seeing and understanding the world, which considers man as a part of the Cosmos. It is aimed at the direct perception of the world, understanding the relationship of man and nature. As a phenomenon of world civilization, known to many nations of the world and in the distant past, and now, shamanism was formed as part of the ancient dualistic, dividing the world into the sacred and the mundane. At the heart of his concept is animistic view of the world: the belief in spirits and deities of nature, human souls, spirits - assistant shaman. It operates according to certain laws of magical and mythological perception of the world: the identity of nature and of man, when the nature of human attributes are assigned and communication,

and people - properties and relationships of nature. There is no opposition to the spiritual and the corporeal, part and whole, living and dead, micro-and macrocosm. In the traditional culture of shamanism based on religious and mythological world view, the general religious practice, and training institute becoming a shaman.



Fig. 16. Symbols of shamanism – main religion of indigenous people

Scientists who study the phenomenon of shamanism, define it in different ways. Some see it as a "natural polytheistic religion", others - outlook, including the rudiments of folk knowledge, religion, art, folklore, magic cult, ecstatic religion, the archetypes of the unconscious. Shamans themselves define their faith as "the way of knowledge and empowerment."

Shamanism as a way of spiritual (mystical, and later religious) knowledge of the world, based on the altered state of consciousness, reaching obsession, ecstasy use various psychic, psychedelic drugs (narcotic drinks, toadstools, fasting, vigils, and so on.), Allows a person to enter the deep structures of the unconscious and connected to the "Information" field of the Earth to read the information. Shamans are able to simulate the human psyche (his own and others'). Shamanism as a phenomenon of civilization arose on the basis of ancient rituals and mythology, and exists in various forms, apparently not always coincide with one another. In the Paleolithic emerging so-called "hunting shamanism" - a way of gaining power and authority over himself and the world, which finds expression in the hunting magic Totem mythology and rituals, objects, cave paintings, simulating the human at the same time, space, trees and animals. In the Neolithic structure appears designed vertical and horizontal models of the world, expressed in the concept of the world tree, the world's grief as mother's womb and space vertical ladder to the sky and the ground. Further development of the animistic worldview in the form of complex relationships of the gods, demons, spirits (especially the spirits of the disease), ancestors (dead and alive), the development of magic tricks and fortune-telling predictions, diverse attributes led to the creation of a harmonious religious and mythological system of shamanism, which in the age of metal getting along with the priestly religion of one of the dominant religious systems in individual nations. The influence of this factor is more indirect, but its importance is increasing, despite the growth of education of the population in the North. Russian mission, defined cultural and religious factor is to maintain a dynamic balance between the components of the cultural and religious influence on society of various sizes in the region.

The ethnic factor is the most important, in today's world, having a huge difference. It is determined by the interests of indigenous nationalities in other states, the level and condition of their participation in social processes. Problems to be addressed are relevant for most of the regions of Russia, so the scientific analysis of the situation, the implementation of decisions is appropriate. The severity of inter-ethnic relations affect the stability of the state. The relationship between ethnic groups are constantly changing. Maintaining the balance in ethnic relations should be handled by state and regional management.

Noticeable changes occur in the ethnic structure of the Russian population. Following the destruction of the Soviet Union, the emerging as a multinational state, began a unique process of redrawing its ethnic map. The essence of this process - to reduce the poly-ethnic states that were part of the USSR. Along with the increasing influx of Russian in Russia, abandoned in neighboring countries to fend for themselves, there is a reverse movement - a contraction of the ethnic groups in "their" state: the Kazakhs - in Kazakhstan, Uzbeks - to Uzbekistan, etc. The share in total Russian migrants and refugees arriving in Russia, are approaching 70%. In just 5 years, the end of the last century from the former Union of Russian arrived more than two million people



Fig.17 Ethnic map of Russia on begin of XX1 century

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The consequence of such an exchange is even greater binding ethnic groups in specific territories. Leaders of ethnic elites today are very easy to inspire the masses the idea that the essence of ethnic interests is in the possession of the territory and the use of the national language. In this mask the fact that the boundaries of the real social and ethnic interests are not between ethnic groups, and within them, and that state, based on the principle of unification of territories allocated by geographical and economic, and not on ethnicity is politically more stable and more economically efficient. It took several years of devastating to the Russian regions, the national-territorial formations and have become independent states of the former Soviet republics began to overcome the "disease of separatism" and realize mutual benefit cooperation and integration. However, much has already been lost forever. These features are shown in Fig. 17.

In Russia, according to various estimates, there are 40-60 small ethnic groups who live in the harsh conditions of the North. According to preliminary results of the 2002 year, the total population is about 250 thousand people. Because of the complexities of statistical records, only a fraction has the official status of "indigenous peoples of the North, Siberia and the Far East" (indigenous). This status under the law provides Aboriginal state guarantees the protection of collective rights, the traditional way of life, culture and environment. Sustainable development and the existence of such groups is largely dependent on the state. The duty of the state - to help people living in extreme climatic conditions, without destroying the distinctive ethno-cultural environment. The fate of small communities, their identity, even demographic parameters depend on the federal and regional policy. The most important instrument of this policy is to state statistics.

Questions about language and ethnic identity are invariably present in all censuses since 1920. Preservation of minority languages is a particular problem in any large state. With respect to minorities of the North, it is particularly acute, as their traditional language environment is adapted to survive in harsh environmental conditions. Preservation of language is often associated with the stability of an original way of life. Soviet census showed that the minorities of the North traditional languages are subject to the process of ousting the dominant languages, especially Russian. Census data show that an average of linguistic assimilation is not less than 35% (this is the percentage of those Aboriginal people who do not know the traditional language or does not recognize him as his). The real extent of assimilation even more, because census, because of their disability, can not determine the degree of language competence of the population. Some groups, such as, for example, Itelmens, Nivkhs, Orochi loss of traditional language has already occurred or has reached a very large size. However, we know also that the number of such demographic groups are not reduced.

In the Russian Federation, the main umbrella organization of indigenous peoples of the North, is the Association of Indigenous Peoples of the North, Siberia and the Far East (RAIPON), which interacts with similar foreign organizations and is a permanent member of the Arctic Council - the main international organization of the eight circumpolar countries. Since one of the main indicators of

the effectiveness of public policies for the sustainable development of the Arctic region is the quality of life of the indigenous population, the role of these organizations in the circumpolar countries is high. In recent years, the situation with regard to statistics on indigenous peoples in Russia are unfavorable. respect to Aboriginal people. Currently, the main consumer of statistical information on indigenous peoples are the regional government. On the basis of the statistics they put forward proposals on the federal government to impose new development programs. Several of these programs were operating at the federal level, and tens - at the regional. The development of each state program for the northern territories is always associated with the use of "native" statistics. This again emphasizes the need for Russian Arctic doctrine or the introduction of "Principles of state policy ..." section of "Arctic organization of the state" to implement the declared strategy, as has been said above. It also allows you to talk about the *mission of Russia, the ethnic factor defined as the maintenance of a dynamic balance between ethnic groups in societies of various sizes in the region.*

The Intellectual factor determined by the development of science and education. In the twenty-first century, when science and education are the strategic resources of the state and the region as a whole, in particular, intellectual factor becomes important backbone. It is becoming a real saying "Intelligence will save the world" instead of fairly well-known "Beauty will save the world." Culture, science, education - are the cornerstones of the future development of the state. The country, which underestimates the role of these areas is doomed to stagnation in the future post-industrial world. Authorities in relation to these three areas is easy to imagine the future of the state. [Osipov, president of the Russian Academy of Sciences "The three pillars on which rests the world civilization."] The state must protect the intellectual, spiritual and moral values of the people and provide them with the accumulation and transfer from generation to generation [B. Vernadsky]. Vernadsky almost one hundred years ago, insisted on the need for active cooperation between the state and civil society in the development of "scientific creation of the nation." According to experts, knowledge, and not capital or labor, and even less natural resources (land and minerals) are now becoming the main source of wealth of the nation. Intellectual property today - it is the most liquid commodity. Its creation was the prerogative of the leaders, and the implementation of technology in a particular product goes to outsiders - to developing countries.

The potential market for intellectual products Russia is estimated at trillions of dollars, and largely due to the development of future technology generations, in a position to have a positive impact on the entire world civilization. However, due to the institutional confusion, the long absence in the Russian legislation for the protection of intellectual property was uncontrolled alienation of many intelligent products for the benefit of her privy to the creation of domestic and foreign commercial entities. In an atmosphere of freedom is misunderstood intellectual exchange was squandered by a substantial body of valuable information. As the losses must be taken into account and the brain drain. The experience of other countries, state policy in the sphere of intellectual "production" can not be just

another market regulation policy. Heir to the past generations and, above all, their intellectual and creative work is the entire population of the country. The resumption of full public funding of basic science and applied research in the most promising sectors of Russia will not only find its place in the international division of labor, but also to move from the sale of intelligence as cheap labor for the sale of the intellectual product. Despite the complexity of the financial situation of the country, most research institutions can now not only survive, but to grow through the sale of its products, services and expertise. If the state will create all the necessary economic and legal conditions. It is no exaggeration to state that the political future of our country depends on how accurately the national institutions responsible for the scientific and technical progress, will fit into the new world order in the conditions dictated by market relations. The main issues are education. It is education that ensures the reproduction of human capital - the main wealth of the society of knowledge. In developed countries, human capital is more than 80% of the national wealth. With the rapid reduction of the life cycle of modern technologies for the educational system is a daunting task - to prepare the personnel of the innovative economy, fundamentally different from those needed in the middle and even the last quarter of the twentieth century.

However, education is not only a sector of the economy. This can be attributed to the major foundations of Russian society. Practical education in Russia has always been built in such a way that the Russian society, even instituted policies in the next historical dead end, never afraid to be late to any modernization. Now we can be late. The level of training of school children falling all over the place. Then the students come to the university According to the Human Development Index (which includes economic growth, life expectancy, level of education), Russia is on the 62 place in the world. Training - is the first step. Next, you need to create the conditions to attract and retain in the scientific and technical complex of the country's talented youth. The next most important task is the reproduction of Russian scientific schools, a sort of "think tanks", which in Soviet times provided leadership position of our country in world science. The destruction of academic schools, form the foundation of the innovation economy, Russia will close forever the way to a knowledge society. The goal of our Academy - to develop and implement a program to support Russian scientific schools in the Arctic. In the context of an open social structure, which is our Academy, you can create a "Russian intellectual space" that goes far beyond Russia. The next most important task is to engage the intellectual product into the economic marketed, i.e. the creation of structures that would help bring scientific idea to its commercialization stage. Such structures are already various innovation centers and small innovative enterprises at universities that provide domestic knowledge-intensive firms, including small, reasonably acceptable conditions of use of the innovation infrastructure.

The new paradigm of social development, based on knowledge and intelligence, or, as we said, the knowledge society is now viewed as a model of social development in the XXI century. And if we do not want to be a dead end in terms of civilization, we must work hard towards this goal.

Globalization is not a new economic and political game in which everybody wins. We are talking about the dominance of countries - leaders. Intelligence - it is an innate ability for a deep and comprehensive understanding of the essence of phenomena. George Soros said that we all have to realize that globalization offers a degree of individual freedom, including creative freedom, which the state, often abuse their power, can not offer. If the state does not operate normally for a scientist, inventor, author of the latest technology, so it can offer its efforts on the international labor market and

Heading for innovative modernization of the Arctic economy is based on building and use of scientific knowledge required to address the economic, defense, social issues and development on this basis of its productive capacity, so to provide the intellectual presence is a prerequisite for the implementation of Russia's geopolitical priorities in the Arctic. In the Arctic scientific knowledge increases the value of an engineering component, which is inherently innovative. New technical competence in demand today in the field of maritime design, construction and operation of mining platforms, arctic shipbuilding, underwater drilling and other areas of technological modernization of the economy.

Expedient is another twist to education as providing the spiritual needs of the individual, and not as a tool to ensure production needs. ***Russian mission, determined intellectual factor is the creation of conditions for the development of intellectual potential as a strategic resource and intellectual potential of Russian Arctic community in this strategic resource.***

In the revival of Russia's geopolitical importance, its Arctic mission, there is an objective need. Without the stabilizing role of Russian endless expanses of the former Soviet Union are doomed in the long term for the disorder in international relations. Generalization of the content of the evolution of geopolitical factors that determines the Russian mission in the Arctic, makes the case for some directions for its implementation.

The first is the formation of the Arctic for the organization of the state of the Russian Arctic doctrine, determining that the concept of sustainable development is preferred simply because it refers to a change in the competitive type of conduct conciliation.

The second is the adoption and implementation of the Program of the real doctrines of Russian Arctic, including the military aspect as challenging the credibility of the decisions taken and megaprojects is specific and clear scientific evidence of any activity that is not in most cases. This gives rise to the population of confidence in the leaders of incompetence or a deliberate distortion of the concepts and substance of events that generate distrust of government.

The third is to implement a breakthrough super project in the Arctic with a powerful information support, such as autonomous planetary settlements, as there is no innovation without upgrades, particularly important in the Arctic, so you need a breakthrough, everyone can understand the project, albeit very expensive, but bordering on fantasy, such Umki, President shown in Arkhangelsk, or city in the crater of "peace pipe", or the dome of the type of autonomous settlement.

The fourth is to implement early informatization of the Arctic regions to involve the whole population in information interaction, which compensates for the complexity of spatial interaction and the high cost of land, air and any other communications, as well as measures to involve indigenous peoples in public and social events regions, including the examination of projects.

The fifth includes the deployment of the company's PR-Arctic ideals and prospects for Russian Arctic projects, transparency of financial flows, as powerful information necessary to ensure the Arctic doctrine that is contained in the last section of the proposed Arctic Academy of Sciences, it is time to stop talking about the Arctic start with mineral resources, and talk about human resources, as only intelligent life is enriched over time, and the material just exhausted. Need to promote a high romance of the region, citing research and proving everyone's responsibility for the implementation of the Russian mission in the Arctic.

The sixth includes a proposal to the international organizations of priority projects and occupy the leading positions in these organizations, stressing that the mission of Russia in the Arctic assumes no preferences, and above all, the responsibility, the original cross, which it must bear with the world community.

The seventh involves the formation in Russia for at least two working groups of the Arctic Council, reflecting the real claim to leadership in the Russian Arctic policy, as even in Iceland these two groups of workers, and in Russia there is not one, though, for example, at the Centre for the study of the Arctic such a group can be form.

The eighth is to intensify measures to involve indigenous peoples in the social and social activities in the region, including the examination of projects. Thus it is necessary to say that as long as it turns out badly, we have not a good life ground to cover pipes, so when approaching some regions of the Arctic are seen burning torches, and oil provinces oil lakes. But the main challenge is to ensure a better quality of life for the indigenous and non-native population, other things being equal opportunities of power, without which the modern world and the future, talk about the subject of any agreement just undignified.

The ninth also refers to the development of intellectual capacity by increasing the competence of the leaders of the northern regions through the establishment of research centers and their association as the most important predictive factor.

Of course, this list could be continued.

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