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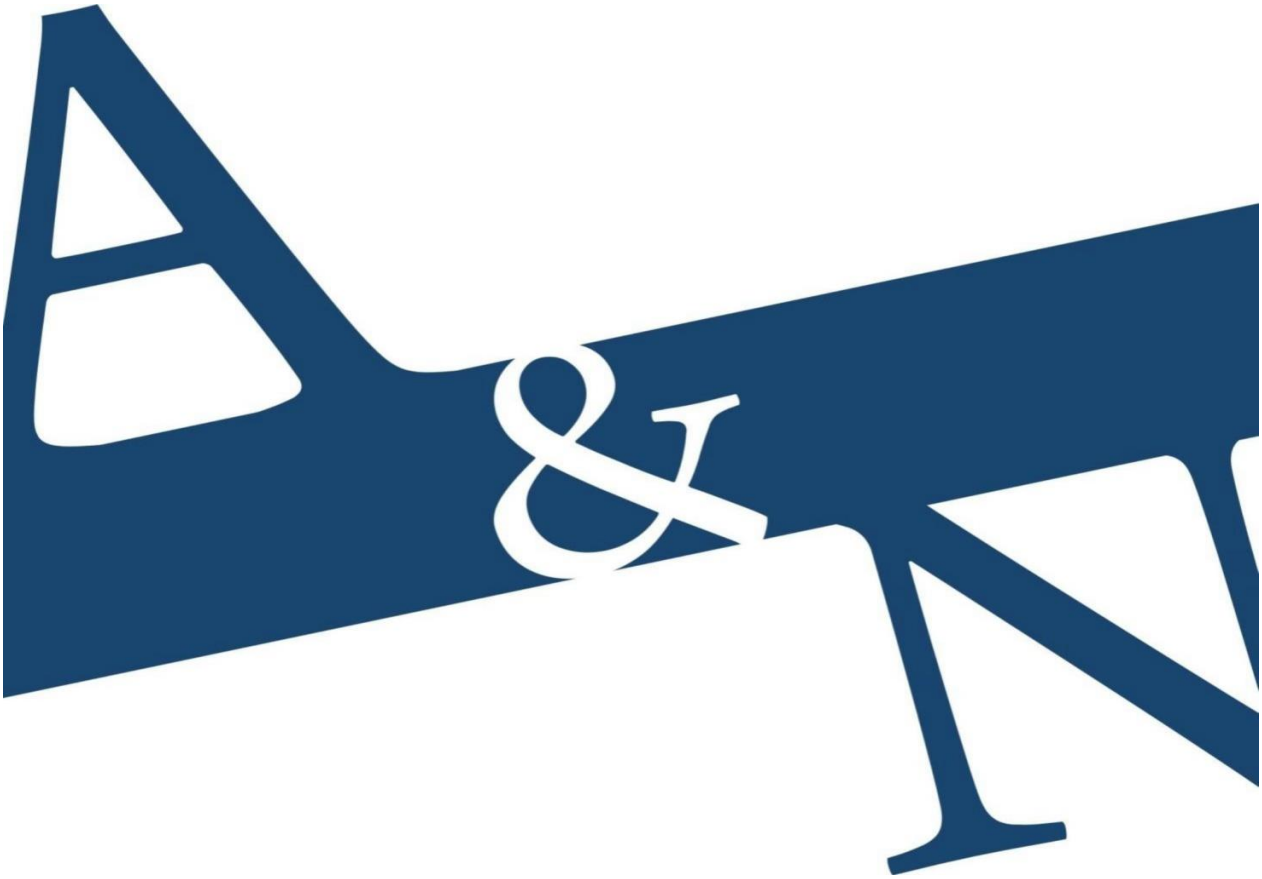

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# REGIONOLOGY OF THE ARCTIC AND NORTH: MANAGEMENT, ECONOMY, SOCIETY, CULTURE

UDK 323 (985)

## 'TROUBLE SPOTS' OF THE RUSSIAN ARCTIC

***© Lukin*** *Yury Fedorovich, Doctor of History, Professor, Honored Worker of Higher Education of the Russian Federation. Author of 15 books, including 'The Russian Arctic in a Changing World' (2012), 'The European North in the Arctic space: the problems of globalization and regionalization' (2011). E-mail: lukin.yury@mail.ru*

**Abstract.** The research of 'trouble spots' in the Russian Arctic in the sphere of Ecology, Economy, Management, Social life

**Keywords:** *'trouble spots', Russian Arctic, ecology, management, society*

### *Topicality of the researched problem*

This article identifies the current environmental problems of the development of the Russian Arctic, using the concept of the trouble spots (trouble spots, abbreviated TS), an interdisciplinary and environmental approach. Environment is understood as real, spatially localized reality in which people coexist – nature – society [10, Dregalo A. A., Uliyanovsky V. I]. The composition of the medium in this case included not only society, but also an individual person with a free will and realizing this freedom in accordance with the personal relationship to the 'society', 'nature', and the constraints coming from the society and nature. Today it is not only relevant features of ecosystem conservation, the protection of nature in the nature of the conflict – a man – a society, but also the man from nature, man from man. Man is both a part of nature and subject to social and cultural creativity. Material culture, including human subjects of the social and cultural creation and destruction of the subject at the same time, interact with nature, the natural environment, part of which is again the man himself as biosocial being, subject and object impact. The challenge is not only to preserve cultural artifacts and natural ecosystems in their environmental relationships, but also in protecting the priority of the people themselves, local communities, regional northern societies here and now. Actual protection of people and culture in the broadest sense of the concept from the damaging effects of nature (hurricanes, earthquakes, floods, tsunamis, climate change and other extreme natural disasters). The fall of the meteorite Chebarkul in the Chelyabinsk region February 15, 2013 aggravated the situation and put on the agenda of the Russian state policy further problem of protection from the effects of the space. This issue con-

cerns not only Russia but requires the effort of the cooperation of many countries of the global society.

The interdisciplinary approach is based on the finding that the Arctic – is a multi-faceted facility that explores the experts from diverse scientific areas and disciplines, for no one branch of knowledge is almost impossible to understand and embrace, conceptually express the diversity, the polyphony of the Arctic area. Quality of the environment, conservation of man as the part of nature, for nature as a value in itself, environmental risks and threats to public health, the negative social and economic consequences, past environmental damage and other issues to some extent dealt with in philosophy, law, politics, regional studies; state, regional and municipal management, environmental management, biological and other sciences. In 'Diagnostic analysis of the environment of the Arctic zone of the Russian Federation', edited by Doctor of Geographical Sciences B. A. Morgunova (2011) notes that a comprehensive environmental study of the various parts of the Arctic region of Earth being more than 50 years, and the Arctic territory of Russia – is more than 80 years. Range of the research gradually expanded the geographical, geodetic, mapping, hydrographic and meteorological to biological, ecological, zoological and microbiological studies of the Arctic ecosystems [8]. Methodological basis of the research is also the author's interdisciplinary model of the multilayer space Arctic [17], in which, along with the natural are the humanities within the modern Arctic scientific paradigm.

As a result of the research, the creation of the scientific basis and now becomes relevant interdisciplinary systems approach in the use of the methodology of the diagnostic analysis of the Russian Arctic environment, its quality and the minimization of the risks and threats. Today it is a question of balance between ecology and economy, sustainable development of the northern societies, modernization of the infrastructure of the Arctic, the elimination of the past environmental damage, general cleaning of the Arctic territories and waters the accumulation of human capital, environmental education and upbringing. Using the concept of trouble spots can highlight the most urgent and most pressing problems not only in the Ecology of the Russian Arctic, but also in other spheres of the society.

### *The object of the research*

The object of the research in this article is the Russian Arctic or the Arctic zone of the Russian Federation (Russian Arctic). In connection with the existing scientific literature and government are different approaches to the definition of the Russian Arctic (1989, 2008) should be emphasized that the two concepts – *the Russian Arctic and AZRF* – by entering of them in the land area and the water area are identical, but most often used in different semantic contexts: domes-

tic – AZRF and foreign – Russian Arctic. Developed and published already in 2011 the author card is fully consistent with the Russian Arctic Art. 2 of the Federal Law 'On the Arctic zone of the Russian Federation' dated January 23, 2013 [29]. The structure of the Russian Arctic in whole or in part from the position thalassocracy incorporate in nine Russian regions bordering the coast of the Arctic seas: the Murmansk and Arkhangelsk regions, Nenets and Yamal-Nenets and Chukotka Autonomous District, Krasnoyarsk Territory, the Republic of Karelia (3 MO), the Republic of Komi (Vorkuta), the Republic of Sakha (Yakutia) of land and islands in the Arctic Ocean north of the coast of the Russian Federation to the North Pole, internal waters, territorial sea, exclusive economic zone and continental shelf of the Russian Federation, the airspace above listed territories and waters[1]. Some law of the Russian Arctic to adequately clarify the map of impact areas, location and number of localized hot spots of the Russian Arctic. In this article, subject structure of the Russian Arctic is correlated with a new project of the Federal Law 'On the Arctic zone of the Russian Federation' and a map of the Russian Arctic.

### *Conceptual definition of 'trouble spots'*

To define the concept of the trouble spots in the article the initial formulation TS, which is given in the UNEP/GEF[2] Project 'Russian Federation – Support to the National Plan of Action for the Protection of the Marine Environment' (Wiley, 2008): 'Trouble spots are:

a) *Sources or human activities (or local group effect) that adversely affect human health, ecosystems, their biodiversity and resilience that its negative economic impact (reduction of commercial stocks, recreational building, awareness of occupational diseases, etc.), causing the need to take measures to reduce or eliminate adverse effects.*
b) *Coastal areas of the Arctic Ocean, where the industrial impact creates conditions that adversely affect the condition of ecosystems, their biodiversity, sustainability, which entails a negative economic impact, causing the need to take measures to reduce or eliminate the harmful effects' [31].*

In this definition, a key feature of TS indicates human activities (sources or human activities), causing negative health effects of the same people, ecosystems and economies. Here the emphasis is rightly on human health. In the coastal regions of the Arctic Ocean, 'the sources or human activities' are replaced by the words 'where as a result of the anthropogenic impact formed conditions', and then almost duplicated the same text, which, apparently, you can edit, combining human activity and human impact in the coastal areas of the Arctic Ocean. Human health in the 'b' is excluded, as the various accidents, fires, explosions, emergencies do not have a

[1] To this list should be added to the waters of the Northern Sea Route.
[2] UNEP (United Nations Environment Programme) – UN Programme on Environment, GEF (GEF) – The Global Environment Facility.

negative impact on people's lives. Also, the source of the anthropogenic impact is still prior activities of people, not space aliens. Formation of adverse conditions is not only a result of man-made, but natural exposure, when it comes to natural disasters – are earthquakes, tsunamis, floods, volcanic eruptions, meteorite falling from space, weather and sea hydrological hazards, wild land fire, particularly dangerous epidemics. Another remark is related to the fact that technological impact not only causes adverse economic consequences, but also threatens people in general life of society, not just the economy. Thus, the definition of hot spots in the UNEP/GEF project is incomplete coverage of the entire problem space of negative consequences. But in fact it was introduced into scientific and used by Russian scientists [12] and in the general government.

The Strategic Action Programm for Environmental Protection of the Arctic zone of the Russian Federation (hereinafter – the 'SAP-Arctic'. Moscow, 2009) defines an TS: 'Trouble spots' – is the limited space within which human-caused sources of pollution have adverse effects on the environment Wednesday. In the territories of such spaces is many times greater than the standard value of the components of natural pollution, ecosystem degradation, ill health, loss of biodiversity and life support systems breach' [36]. Here, in contrast to the UNEP/GEF (2008) focuses on the understanding of hot spots as space is limited. But direct human activities (sources or human activities and their local group effect) on a 'here and now' are excluded, and it is only about anthropogenic sources of pollution locally confined spaces. However, the adverse effects TS revealed here not only through ecosystem degradation, ill health, loss of biodiversity, but also through the violation of life support systems, creating a real threat to the life of the local society in the present.

Another locus of understanding aimed at trouble spots scale ecosystem degradation, harmful for levels of contamination. As already mentioned the extended summary of the 'Diagnostic analysis of the environment of the Arctic zone of the Russian Federation' emphasizes that the environment of the Russian Arctic remains fragmentary studied and is growing concern 'due to the formation of trouble spots in which the degradation of natural ecosystems have reached dangerous levels, and pollution levels are much higher than permissible limits, as well as due to changes in the environmental quality at the background level'. [8] Adverse effects are linked to the degradation of natural ecosystems and changes in environmental quality at the background level. Threat to human life, the economy, the whole life of the northern societies is not mentioned. But emphasizes the need for urgent action 'to mitigate' accumulated environmental damage and to prevent potential threats to Arctic ecosystems associated with increasing economic activity. In the

same paper gives another insight TS, which literally swarm correlates with what is given in the 'SAP-Arctic' above.

One can hardly agree with extremely broad definition of hot spots in documents NEFCO – Nordic Environment Finance Corporation (Nordic Environment Finance Corporation). This is an international financial institution owned by the governments of the five Nordic countries and part as an observer in the Arctic Council, finances investment projects in Russia, Belarus, Ukraine, Latvia, Lithuania, Estonia and Moldova in order to improve the environmental situation in the Northern Europe, and the new Carbon Trust NeCF works around the world[3]. NEFCO's first postulate approach to the 'hot spots' states: 'All of the 'hot spots', in fact, are the priority environmental issues that require action!' [40, Henrik G. Forsström]. Does this apply to the direct impact on the natural environment of people?

The problem is that the term is used in the Trouble spots of the earth sciences, oceans, volcanoes, earthquakes. One of these points is in Hawaii, where the surface of the rising hot mantle flows in the moving oceanic crust above it. Of points on Earth right now established a set[4]. Global map trouble spots investigated in D. Anderson and K. Schramma. It provides a directory of the volcanic tectonic geo-chemical formations within the earth, which are called 'trouble spots'. Unlike catalog volcanic trouble spot directory contains objects that are not associated with strong mantle plumes. Anomalous zone melting, or trouble spots, may be formed as a result of a local temperature rise in the mantle, the local saturation or partial melting of the atheno sphere. Some hot spots identified softened/moistened ('wetspots') points, some are called 'hot line' ('hotline') by the impact of the litho spherical stress [3].

With reference to the Arctic such phenomena researched by RAS corresponding member F. N. Yudakhin (1934–2011), drawing attention to the potential hazards associated with the development of hydrocarbon deposits, including Stockman, and calling them 'revenge bowels'. In some cases, it is generally very difficult to distinguish between human activities (human factor), man-made and natural influences. The accident at the Japanese nuclear power plant 'Fukushima' in March 2011 began with the earthquake, tsunami, and then transformed into the largest man-made disaster twenty-first century as a result of a previous human activities. The man could not be accessed directly, and there was then a natural disaster, but it is to construct and operate a nuclear power plant that place. NPP 'Fukushima' has become a Toruble local point at which both in-

[3] Nordic Environment Finance Corporation. URL: http://www.nefco.org/ru (date of access: 09.03.2013).

[4] Plate technonicks. URL: http://ru.wikipedia.org/wiki/%D2%E5%EA%F2%EE%ED%E8%EA%E0_%EF%EB%E8%F2 (date of access: 08.02.2013).

corporated various natural and anthropogenic impacts, supplemented by human error, not always professional activity of people to eliminate the negative effects of the accident already, especially in the very beginning.

The report 'Identification of trouble spot areas of forest cover changes in boreal Eurasia' for trouble spots (hot spot areas) in boreal Eurasia refers to the areas in which significant changes of forests caused by logging, fires, and other activities. The maps of the location of the Eurasian 'trouble spots' for the northern Europe, Siberia, China. The study focused on two types of hotspots: where there has been a change and the expected trouble spots. Transformation in the hot spots were due to clear-cutting, high-intensity selective logging, and the transition to non-forest area in connection with the exploitation of natural resources, agriculture, urbanization, forest degradation due to an increase in fire frequency and the influence of man, etc. [1]. There are many other works, which investigated the effect of warming trends and other changes in vegetation at high latitudes, the situation in the trouble spots.

I think that should be a clear understanding of the whole process of interdisciplinary complex adverse effects on the quality of the environment, creating a range of different risks, threats and challenges to the human society, the nature and require urgent action. Man as a biosocial being its activities in the Arctic, including indirect technological impact, harming not only the surrounding natural and man-cultural environment, but also to himself as part of nature and the creator of culture, as well as the whole of their social existence, all walks of life of northern societies. This process entails a complex and not always clearly manifested complex of negative socio-economic impacts, which are stretched over time. So we can treat these activities as always reproducible conflicts between man and nature, the environment and the economy, nature and culture in the broadest sense of the word (all artifacts, built environment, including the material and spiritual). Emerging conflict situations, environmental crises are transformed by local area in critically dangerous Trouble spots, impact areas, requiring the implementation of urgent measures to minimize the risks and threats. There is no doubt that the sources or human activities, both man-made and natural influences in the hot spots, that is, within the limits of a local area of the Russian Arctic, not only adversely affect human health, and threaten the very life of the people living north societies. Any of them threaten not only obviously man-made, but natural emergencies (catastrophic, crisis, etc.) in the trouble spots of the Arctic area.

Thus, system security environment ideally carried out not only for the conservation of nature, ecosystems, biodiversity, but also to maintain favorable conditions for societies, the life of the man as an integral part of nature. Can be synthesized that environmental trouble spots – this

is usually, conflicts related to the quality of the environment, its critically dangerous pollution in the local area as a result of human activities, man-made and natural impacts, which have a strong negative impact: 1) on human health, including threats to their lives, and 2) on the economy, culture and all other spheres of life of the local society, and 3) the state of ecosystems and their biodiversity, flora and fauna.

The term trouble spots is widely used in the media, in the scientific circulation, in the speeches of the heads of the federal agencies when it begin to discuss the Arctic. By 'hot spots' in public opinion are concrete objects dumping of toxic industrial waste, mine fields, areas of oil-polluted, abandoned warehouses with chemicals, garbage, landfill for the destruction of chemical weapons, abandoned military camps; submerged in the waters of the Arctic Ocean ships and nuclear reactors. Obviously, there is a need to introduce widely used in the public opinion, research, and practice the concept of international environmental hot spots in the legal space to legalize its use in politics, administration, official documents of the Russian state.

### *The management to serve the environment in the documents of the Russian State*

The selection of 'trouble spots' in relation to certain environmental factors affecting the health of the population in many countries around the world, is one of the main activities as the environmental policy and environmental management, and public health. In the USA, in 1980, Congress passed a special law on the Comprehensive Environmental Compensation and Liability (Comprehensive Environment Response, Compensation and Liability Act – CERCLA), more commonly known as Superfund, which accumulate significant funds for the assessment and rehabilitation of the most contaminated areas. At the expense of the fund conducted studies to determine the effects of the environment on human health, are designed and implemented as environmental and health preventive measures. If required by the fund is displaced people from the most contaminated areas. List of territories that are considered hot spots regularly approved by the US Congress and they established a special unit of the Agency for Environmental Protection, which to oversee the implementation of environmental protection measures. Lists of hot spots developed in Germany, Switzerland and other countries of the world [34, Revich B. A.].

The Russian law about the environmental protection (from December 19, 1991 № 2060-1, dated January 10, 2002 № 7-FZ) formulated identical in the content to the trouble spots concept of the zones of ecological emergency, where as a result of the economic and other activities occur stable negative changes in the environment that threaten public health, the natural ecological systems, the genetic pool of plants and animals, as well as ecological disaster areas, where the result of economic or other activities have been profound changes in irreversibility of the environ-

ment, resulting in a significant health of the population, the violation of the natural balance, the destruction of natural ecosystems, the degradation of flora and fauna[5]. Under emergency situations in the country often do not understand so much ecological disaster as extraordinary natural and man-made disasters associated with explosions of gas pipelines, trains, fires, earthquakes, droughts, liquidation involving Emergencies Ministry. Giving special legal status of the territory as a zone of the ecological disaster should occur through the adoption of normative legal act of the federal government body with the establishment of boundaries and features of the legal regime on the basis of the conclusion of the state ecological expertise [4, Anisimov A. P.]. The criteria for environmental disasters are indicators of the environment and public health, which are the basis for giving the status of certain territories of the Russian Federation of ecological disaster. The health risks associated with the likelihood of danger to life or health, or future generations posed by environmental factors [30]. Mentioned concepts so most adequate to the content of the concept of 'trouble spots'.

I also note that in the Climatic Doctrine of the Russian Federation, approved by the President of the Russian Federation from December 17, 2009 № 861-rp used similar in the meaning to the concepts of trouble spots: the most vulnerable areas, facilities, and social groups, threats to sustainable development and security of the Russian Federation, the life and health, conflict of interests of the climate change policy. [15] Population, natural objects, and objects of the economy, public infrastructure, and defense differ on the nature and extent of their vulnerability to the adverse effects of climate change. This is the subject of the special attention in the evaluation of their vulnerability, development and implementation of proactive measures to prevent and neutralize the adverse effects of climatic change or reducing them to the lowest possible level (paragraph 15). Early identification, assessment of climatic change threats to sustainable development and security of the Russian Federation, including the threat defense, economy, environment, life and health of the population, are among the priorities of the climate policy.

Used ecological regulations specifically define the limits of human impacts on the environment include environmental hygiene and environmental protection standards, and limits the regulatory burden on the environment. The economic standards include technological, urban, recreational, and other restrictions and tolerances. This emission limit values (ELVs) of harmful substances into the atmosphere, the maximum permissible discharge (MPD) of pollutants into water bodies, the maximum allowable amount of fuel (MVP), rules for using natural systems, etc. All of this

[5] The Law RSFSR from 19 December 1991. № 2060-1 'About the protection of the environment'; FL 'About the protection of the environment' from the 10 January 2002. № 7-FL and etc.

information is freely available. Published annually by the state reports on the status and protection of the environment, the use of water and mineral resources. Thus, the official site Ministry of Russia February 4, 2013 published the state report 'On the state and Environmental Protection of the Russian Federation in 2011' [7]. The list of the hundred most polluted cities in the Russian Federation with a population of 100,000 or more people on the API – is a comprehensive air pollution index that is used to assess the overall pollution in the whole city, is only three cities of the Russian Arctic: Archangelsk (7.0) Vorkuta ( 6.3), Salekhard (11.0). Archangelsk is also included in the list of Russian cities, which were reported in 2011, eight cases of high air pollution mixture of benzo (a) pyrene with the maximum concentration of a single MAC 23.0. In Nickel registered 13 cases of high air pollution admixture of sulfur dioxide (MPC 12.8). Norilsk is on the list of cities with the highest levels of air pollution emissions of $SO_2$ and $NO_2$ [7]. Thus, Arkhangelsk, Vorkuta, Nickel, Norilsk, Salekhard, are the members of the Russian Arctic, with the high level of air pollution, but their share in the list of the most polluted cities in Russia is very low. The result is that the fresh arctic air ventilates good atmosphere in high-latitudes, with all the sharpness of their high pollution.

The problem of the financing rehabilitation projects areas of the concern in the state, regional and municipal government solves the creation of the public policy, federal and regional programs, and social protection of the citizens' rights (compensation and benefits). Although taken to document is not a formal definition of environmental hot spots, but the aperture, are regulatory mechanisms to protect the environment and ecological safety, sources of funding. President of Russia April 30, 2012, for example, approved the basis of state policy in the field of ecological development of the Russian Federation for the period up to 2030, which noted that 'the environmental situation in Russia is characterized by a high level of human impact on the natural environment and the significant environmental impacts of the economic activity' [25]. This document points out that in dealing with the problem of improving the regulatory environmental protection and ecological safety, the following mechanisms: a) the adoption of legislative and other regulatory legal acts b) the creation of structurally coherent, comprehensive and consistent system of legislation of the Russian Federation in the field of environment, environmental security and natural resource management c) the creation of the legal framework and the implementation of the strategic environmental assessment in making plans and programs which may have an impact on the environment. Along with the other as one of the tasks allocated a separate item 'environmental problems of Baikal natural territory, the North and the Arctic regions, areas of the traditional use of indigenous people of the North, Siberia and the Far East'. Also focused attention on the devel-

opment of information sharing and participation in the international projects in the priority areas of the science, engineering and technology in the field of environmental protection and environmental safety, including in the Arctic [25]. According to Deputy Minister of Natural Resources and Environment Rinat Gizatulin: 'In This Document was attended by all stakeholders – from government to conservation organizations, academia, and business associations. This is the first policy document in modern Russia in the field of ecology, creating a balance between economic development and preservation of the environment'[6]. However, as you know, in Russia from the strategy to put something into the practice is often a huge distance from perverse manifestations of bureaucracy and corruption at all levels of the government.

The government of the Russian Federation on the December 27, 2012 was also approved the state program 'The Protection of the Environment for the period up to 2020' [33], which includes five sub-programs: 'Regulation of the environment', 'Biodiversity of Russia'; 'Hydrometeorology and Monitoring environment', 'Organization and maintenance of the works and the research in the Antarctic', 'Making the state program of the Russian Federation 'Environmental Protection in 2012–2020' and the federal Target Program 'Protection of Lake Baikal and the socio-economic development of the Baikal natural area for 2012–2020'. In the government documents incorporated benchmarks and funding the work of environmental protection, the elimination of losses due to human activities[7]. In addition, 2013 was declared the year of the environment [32].

In Russia, are quite achievable opportunities to reduce the adverse impact on the environment, conservation and restoration of the unique natural complexes, better control and monitoring, strengthen enforcement of environmental safety. However, there are real threats. Environmental risks are quite tangible and really complemented the prevailing far social attitudes and mentality of people. In the management of the implementation of all kinds of government programs often manifest conflicts of interest is the so-called 'Cut' the budget. 'Fines and criminal responsibility of the whole cannot be resolved, but fine, and sometimes it is necessary to plant, because that is what is happening in our country, it is absolutely impossible to imagine in any other country. Maybe there are a few countries, I will not name them, so as not to offend, but, in principle, no developed country can often barbaric treatment of the nature itself does not, and I mean,

[6] URL: http://www.mnr.gov.ru/news/detail.php?ID=128646 (date of access: 03.03.2013).

[7] Also implemented: Strategy activities in the field of the hydrometeorology and related fields for the period up to 2030 (including aspects of climate change), approved by the RF Government on September 3, 2010 № 1458-p, Concept Development of Specially Protected Areas of the federal values for the period to 2020, approved by the decree of the Government of the Russian Federation of December 22, 2011 № 2322-p, strategy development of maritime activities of the Russian Federation until 2030, approved by the decree of the Government of the Russian Federation from December 8, 2010 № 2205-r, etc

of course, not only the company, enterprise, I am referring to the household level. Maybe it's even more importantly, because the companies are working in management positions are the same people' – a tough assessment of the situation in this scope, Dmitry Medvedev, in his speech 09.01.2013 [21].

Targets (indicators) of the State program of the Russian Federation 'Environmental Protection for the period up to 2020' are:

- emissions of harmful substances (pollutants) from stationary sources per unit of GDP;
- The number of cities with high and very high levels of air pollution;
- The number of people living in adverse environmental conditions (in cities with high and very high levels of air pollution (air pollution index of more than 7);
- the volume of waste generated all hazard classes per unit of GDP;
- the number of people living in areas with unfavorable ecological situation, exposed to negative impacts associated with past economic and other activities;
- the fraction of the area of Russia occupied by protected areas at all levels.

The SAP-Arctic (2009) on the results of a detailed diagnostic analysis of the current environmental situation in the Russian Arctic and forecast possible changes in the environment identified the following priority environmental issues:

- Environmental pollution (transboundary transport of pollutants of water and atmospheric currents, chemical, oil and radioactive contamination), and the deterioration of the quality of surface water and groundwater in the coastal territories of the Russian Arctic;
- Land degradation and violation of land use;
- Changes in biodiversity and decline of biological resources;
- Deterioration of the habitat of the indigenous population of the Russian Arctic and the conditions of their traditional land;
- Negative impacts and threats to global change [36].

For the first time in this document at such a high level of officially legalized the concept of environmental 'trouble spots' [SAP-Arctic, 2009. P. 3], is given in a footnote definition of what 'trouble spot', says that in the Russian Arctic revealed more than a hundred trouble spots, with 30 identified as priorities, is a ranked list of priority trouble spots in the Russian Arctic. It is noted continuity that has been prepared within the framework of the UNEP/GEF Project 'Russian Federation – Support to the National Plan of Action for the Protection of the Marine Environment' (Wiley, 2008).

### *100 ecological trouble spots in the Russian Arctic*

Priorities in the cleaning of the ecological trouble spots are not accidentally given to the Arctic and the North of Russia, given the fragile vulnerability of important geopolitical and economic role in the development of the country and its future. Leading researchers A. V. Evseev and

T. M. Krasovskaya in his writings emphasize that the growth centers of the environmental crisis in the Arctic threatens to destabilize the climate, geo-chemical, krio-litological and ecological processes in the large parts of the northern hemisphere. The environmental conflict is often irrational socio-economic development of natural resources and pollution of the environment, leading to its degradation. In the Russian Arctic highlighted 30 key 'trouble spots' of the 100 that have the most negative impact on the environment and human health, the four main 'source of tension' related primarily to the chemical contamination of the environment: the Murmansk region, the Norilsk area, areas of development hydrocarbon deposits in the north of the Western Siberia and ETP [12].

As noted above, the characteristic of a hundred trouble spots of the land in the Russian Arctic and the main areas of the impact as of 2003-2006. given in the work carried out within the framework of the UNEP/GEF Project 'Russian Federation – is the Support to the National Plan of Action for the Protection of the Marine Environment' [30]. In this project allocates 12 impacted areas. Under the area of impact is understood area within the territorial-industrial complex, which as a result of human impact has been an adverse change in the environment, leading to the emergence and the development of critical environmental situations.

*Table 1*

***12 impact regions of the Russian Arctic (2008)***

| № | Impact region | The reason of the pollution | Priority pollutants | The estimation of the level of the ecological situation |
|---|---|---|---|---|
| **1** | Western-Kolskiy | Non-ferrous metallurgy, mining | Nitrogen dioxide, dust, heavy metals (Cu, Ni, Co), fluoride, carbon | Crisis |
| **2** | Central-Kolskiy | Non-ferrous metallurgy, mining, nuclear power, transportation | Sulphur dioxide and nitrogen oxides, heavy metals (Cu, Ni, Co, Pb, Cr), dust, strontium, phosphorus, radio nuclides | Critical (in case of a catastrophic accident at the nuclear power plant) |
| **3** | Karelskiy[8] | Pulp and paper industry, timber industry | Carbon dioxide, nitrogen, sulfur, methyl mercaptan, ligno sulfate, methanol, mercury, furfural, phenol | The tense situation |
| **4** | Arkhangelsk[9] | Pulp and paper industry, engeneering, forestry, power system, transportation | Carbon dioxide, nitrogen, sulfur, heavy metals, ligno sulfate, methyl mercaptan, phenol, formaldehyde, PAHs, methanol | Critical |
| **5** | Timano-Pechorskiy | Production and transportation | Petroleum, carbon, nitrogen, | Critical |

[8] The Republic of Karelia is not completely in the Russian Arctic, but only three municipalities on the coast of the White Sea. So it would be more correct to designate this area as a White Sea Karelia.

[9] Arkhangelsk impact region represents the metropolitan area, which includes three cities: Arkhangelsk, Severodvinsk and Novodvinsk, including two PPM and defense enterprises.

| | | | | |
|---|---|---|---|---|
| | | of hydrocarbons | sulfur, heavy metals, PAHs | |
| **6** | Vorkutinskiy | Mining, power engineering, construction industry | Dust, heavy metals, PAHs, soot, hydrocarbons | Critical |
| **7** | Novozemelskiy | Dining out (DRC), the flooding of nuclear facilities and other radioactive waste | Radio nuclides, heavy metals | Critical (Potential crisis) |
| **8** | Nijne-Obskiy | Production and transportation of hydrocarbons | Petroleum hydrocarbons, PAHs, heavy metals, radio nuclides, soluble salts | Critical |
| **9** | Norilskiy | Non-ferrous metallurgy, mining | Sulfur and nitrogen oxides, heavy metals, dust, arsenic, formaldehyde, carbon | Crisis |
| **10** | Yano-Indigirskiy | Mining | Dust, heavy metals, mechanical disturbances geo systems | The tense situation |
| **11** | Western-Chukotskiy | Mining, Nuclear power | Heavy metals, dust, radio nuclides | The tense situation in case of a catastrophic accident at the nuclear power plant |
| **12** | Eastern-Chukotskiy | Mining | Heavy metals, dust, PAHs, hydrocarbons, soot | The tense situation |

Characteristics of the impact areas are detailed in the works of A. V. Evseev and T. M. Krasovskaya (1996, 1997, 2004, 2008), the monograph 'Russian Arctic: on the threshold-made disasters' (1996), a monograph 'Environmental Trouble spots and impact zones of the Russian Arctic' (2000) and others [11]. Indicators of the severity of environmental situations are the presence of trouble spots and high levels of certain diseases ecologically dependent and low of indicators of life expectancy in these places.

In impacted areas highlighted areas of pollution and environmental change depending on the amount and concentration of the sources of exposure (hot spots), the degree of hazard environmental and sanitary standards, as well as emissions and discharges of pollutants by different sources of exposure. Catastrophic environmental situation assessment is based on the permanent degradation of all components of the environment, multiple air pollution, groundwater, surface water, soil, various pollutants on the development of other negative consequences that threaten the lives and health of the population. In crisis situations, there is a destruction of the individual components of the environment, pollution of air, water and soil, damaged landscapes, where the threat to the population, the nature and the socium are not yet large, and can be successfully minimize the risks involved. In addition to the above there are other interpretations of the list of impacted regions of the Russian Arctic [45].

Geographical distribution of impacted areas is extremely uneven. Several main foci of environmental stress in the Russian Arctic: 1) Murmansk region (16 environmental trouble spots, short-EGT); 2) Arkhangelsk, Severodvinsk agglomeration with a polygon in the New Earth and the

Plesetsk launch site; 3) the Krasnoyarsk Territory (Norilsk, etc.); 4) Yamal, areas of oil and gas fields in Western Siberia; 5) the Chukotka Autonomous District (two impacted area, 11 EGT). Among the industries of the Arctic Zone, with which the formation of the impacted areas, the first place is a metals and mining major centers in Norilsk, Monchegorsk, Pechenga, Polar, Olenegorsk Kanda-laksha Talnakh, Kovdor, MPs, Bilibino etc.

Of the one hundred environmental Trouble points by 2008 on land was 77, including the subjects of the Russian Arctic:

- in Karelia republic – 4 (Belomorsk, Kem, Nadvoitsy, Segezha);
- in Murmansk – 16 (Nickel, Polar, Pechenga, Murmansk, Kola, Teriber-ka, Apatity, Kirovsk, Kovdor, Ena, Polar Zory, Kandalaksha, the White Sea (the village), Umba Olenegorsk Monchegorsk);
- in Arkhangelsk – 8 (Mezen and village of Kamenka, Arkhangelsk, Severodvinsk, Novodvinsk, Solombala, Koryazhma, Onega, Lower Zolotitsa);
- in the NAO – 8 (oil and gas Vasilkovsky fishing Kumzhinskoye field, Naryan-Mar, Amderma, Kharyaga, Toraveyskoe deposit Varandey field, Peschanoozerskoye field);
- in the Komi Republic – 5 (Vorkuta, Inta, Verhnevozeyskoe deposit Vozeyskoe deposit Usinsk deposit);
- in Yamal – 10 (Urengoy field, Yamburg field, Bear Jubilee Yamsoveyskoye deposit;
- Bovanenkovskoye, Kharasaveyskoye deposit; Zapolyarnoye, Nakhodka, Yurkharovskoye de-posit; Salekhard, Labytnangi, Nadim, New Urengoy);
- in the north of the Krasnoyarsk Territory – 7 (Norilsk, Talnakh, Kayerkan, Dudinka, Dixon, Kayaköy, Khatanga);
- in the Republic of Sakha (Yakutia) – 8 (Tiksi Kulary, MPs, Tenkeli, ECE-Haya, the factory was closed, Nizhneyansk, Chokurdakh, Cherskiy);
- in Chukotka – 11 (Iultin, Bilibin complex Bilibino NPP Baranikha, Komsomol, Pevek Valkumey, closed; Krasnoarmeisky, Polar, Cape Schmidt, Anadyr).

In the coastal parts of the Russian Arctic seas of the Arctic Ocean was allocated 23 impact zones grouped by seas:

*Barents Sea*

1. Kola Bay. 2. Motovsky bay. 3. Pechora Bay. 4. Varandey zone.
5. Prirazlomnaya zone. 6. Shtokman area.

*The White Sea*

7. Dvina Bay. 8. Onega Bay. 9. Kandalakshky bay. 10. Mezen Bay.

*Kara Sea*

11. Novozemelskaya zone. 12. Amederminskaya zone. 13. Baidarata Bay.
14. Ob Bay. 15. Yenisei Bay. 16. Pyasinskaya bay. 17. Taz bay.

*Laptev Sea*

18. Khatanga Bay. 19. Buor Khaya. 20.Yang Bay.

*East Siberian Sea*

21. Kolyma area. 22. Chaunsky bay.

*Chukchi Sea*

23. Shmidtovs zone.

Each of these marine areas of the impact analysis of the nature of Trouble spots, geographic location, the cause, the level of pollution created by the nature of adverse effects, their magnitude, severity, loss and community groups, bearing the losses.

The Strategic Action Programm for the Protection of the Environment of the Russian Arctic (SAP-Arctic), developed by the Ministry of Economic Development of Russia and approved by the Marine Board of the Government of Russia June 19, 2009, is a ranked list of 30 priority hot spots in the Russian Arctic. Data on priority hot spots are the objects of planning and pre-investment studies targeted interventions to reduce levels of accumulated environmental damage and implementation of protective and compensatory environmental measures.

*Table 2*

***The list of the prioritical Trouble Spots of AZRF in SPD-Arctic (2009)***

| № | Priority Trouble Spots of AZRD горячие точки АЗРФ | Modern influence | Potential influence | Subjects of AZRF |
|---|---|---|---|---|
| **1** | Norilsk | 38.0 | 42.0 | Krasnoyarsk region |
| **2** | Nikel | 37.2 | 41.2 | Murmansk region |
| **3** | Zapolarniy | 37.2 | 41.2 | Murmansk region |
| **4** | Monchegorsk | 31.4 | 34.4 | Murmansk region |
| **5** | Kaerkan | 31.0 | 33.0 | Krasnoyarsk region |
| **6** | Vorkuta | 30.4 | 34.4 | Komi Republic |
| **7** | Murmansk | 29.2 | 32.2 | Murmansk region |
| **8** | Talnah | 27.8 | 29.8 | Krasnoyarsk region |
| **9** | *Kolskiy Bay* | 26.8 | 28.8 | Murmansk region |
| **10** | Arkhangelsk | 26.2 | 29.2 | Arkhangelsk region |
| **11** | Levek | 26.2 | 28.2 | CHAO |
| **12** | Bilibinskiy Complex | 25.8 | 27.8 | CHAO |
| **13** | *Dvinskaya Guba* | 25.8 | 27.8 | Arkhangelsk region |
| **14** | Anadir | 25.4 | 27.4 | CHAO |
| **15** | Kirovsk | 25.4 | 27.4 | Murmansk region |
| **16** | *Kandalaksha bay* | 25.4 | 27.4 | Murmansk region |
| **17** | *Onejkskaya Guba* | 25.4 | 27.4 | Arkhangelsk region |
| **18** | *Obskayua Guba* | 25.2 | 27.2 | YANAO |
| **19** | *Eniseiskiy Zaliv* | 25.2 | 27.2 | Krasnoyarskiy Region |
| **20** | *Pechorskaya Guba* | 24.4 | 26.4 | NAO |
| **21** | Olenegorsk | 24.4 | 26.4 | Murmansk region |
| **22** | Kola | 24.2 | 25.2 | Murmansk region |
| **23** | Yrengoisk | 24.0 | 26.0 | YANAO |
| **24** | Kandalksha | 23.8 | 25.8 | Murmansk region |
| **25** | Solombala | 23.8 | 25.8 | Arkhangelsk region |
| **26** | Koryajma | 23.8 | 25.8 | Arkhangelsk region |
| **27** | Dudinka | 23.8 | 25.8 | Krasnoyarskiy Region |
| **28** | Severodvinsk | 23.6 | 25.6 | Arkhangelsk region |
| **29** | Yambusk district | 23.4 | 25.4 | YANAO |
| **30** | Inta | 23.2 | 25.2 | Komi Republic |

When ranking the SAP-Arctic takes the following parameters: distance from the coast, the population in the zone of influence, the level of air pollution and surface water risk assessment associated with the mining industry and the transportation of hazardous materials, ecosystems, kind of economic activity that caused the hot point. The top five most dangerous hot spots on the ground on the above parameters include 1) Norilsk, 2) Nickel, 3) Polar, 4) and 5 Monchegorsk) Kayerkan. The priority hotspots included seven marine areas: 1) the Kola Bay, 2) Dvina Bay, 3) Kandalaksha Bay, 4), the Onega Bay, 5) Ob Bay, 6) Yenisei Bay, 7) Pechora Bay. Distribution of the 30 priority hot spots on the subjects of the Russian Arctic is as follows:

1. Murmansk region – 10 .
2. Arkhangelsk region – 6.
3. NAO – 1.
4. Republic Komi – 2.
5. YANAO – 3.
6. Krasnoyarskiy Region – 5.
7. Chykotskiy Auonomous District – 3.

It is interesting to note that in the Arctic zone of the Republic of Sakha (Yakutia) absent priority environmental Trouble spots. In the republican target new program 'Environmental Protection of the Republic of Sakha (Yakutia) for 2009–2011'. Noted that Yakutia is today one of the most prosperous in the ecological aspect of Russian regions, with the exception of environmental stress in urban areas and industrial zones[10]. However, in the same program, emphasized that obtained by traditional methods of environmental information on the state and dynamics of the environment in general is controversial and not credible. Apparently, the problems of ecological safety and to minimize the negative effects of pollution on human health is still valid and in this country, especially since the implementation in the territory of industrial mega-projects.

A list of the Arctic environmental Trouble spots should certainly permanently, at least once a year, as specified and published on the website of the Ministry of Natural Resources and Environment (http://www.mnr.gov.ru), and in the regions of the Russian Arctic. In general, the successful implementation of the adopted in 2012, the state program for the protection of the environment and the foundations of the state policy in the field of environmental development will bring life in Russia to a new ecological level. 2.7-fold reduced the number of cities with high and very high levels of air pollution. For the 36 million Russians living in disadvantaged and crisis in

[10] RIC 'Environmental Protection of the Republic of Sakha (Yakutia) for 2009–2011'. URL: http://www.sakha.gov.ru/node/57504 (date of access: 29.03.2013).

terms of environmental regions will be improved living conditions[11]. One of the most pressing issues in this case is the elimination of the past environmental damage, and to minimize the risks and threats, which is very important for regions and municipalities of the Russian Arctic.

### *Liquidation of the last Ecological Damage*

The strategy of the Arctic zone of the Russian Federation and the national security for the period up to 2020, published on the website of the Government of the Russian Federation February 20, 2013, the main risks and threats in the sphere of nature and the environment is increasing technological and the human impact on the environment with an increased likelihood of achieving its limits in some areas adjacent to the Russian waters of the Arctic Ocean, as well as in certain regions of the Arctic zone of the Russian Federation, are characterized by the presence of extremely vulnerable areas, potential sources of contamination, high levels of accumulated environmental damage [37]. Risks and threats are not the same as the Trouble spots, but they carry the potential of the local area extremely vulnerable, potential sources of contamination. For the Russian Arctic is really a serious risk of the past environmental damage as a long-term time bomb, which sooner or later will explode, bringing a potential threat to future generations of northerners. It is quite clear that the cleaning of the Arctic from the hazardous waste and requires time and resources that can be expected only in the federal and regional programs. Even after a meeting of the State Council of 09.06.2011 on environmental security in response to the request of President Ministry of Russia drafted the concept of FTP 'Environmental Security of Russia (2013–2020)', One of the areas which is a section of 'The elimination of past environmental damage' [23]. In Russia, according to Dmitry Medvedev has already gained 30 billion tons of hazardous waste [13]. Vice-President of Russian Academy of Sciences Nikolai Laverov, speaking at the same time at a meeting of the State Council (09.06.2011), based on calculations of space data, estimate raised to 80 billion, 'The thing is, it is not clear at all that these dumps and that These emissions', – he said [9].

Over the years, a list of objects of the environmental damage of 194 points, including 77 new facilities were built in the Soviet era and is the 'past environmental damage' [35]. This is the result of many years in the past human activity, which is expressed in high concentrations of contaminants in soil, water, and air, the presence of abandoned or orphaned storage of hazardous substances. Acting with the legal concept of harm to the environment reflects only the natural form of the damage, but not its value. That environmental damage can be understood as an index, expressed in monetary or in kind, indicating the results of the negative impact on the environ-

[11] URL: http://www.mnr.gov.ru/news/detail.php?ID=130535 (date of access: 29.03.2013).

ment, obtained as a result of the economic procedures for environmental damage assessment or evaluation of the environmental impact, which is based on the approved methodology [26].

The costs of responding to the environmental damage, negative impacts, minimizing threats to the environmental hot spots translate into huge sums. Speaking on the Nevsky Ecological Congress in May 2012, the Acting Minister of Natural Resources and Environment Minister Yury Trutnev said that Russia 194 'hot spots' on pollution garbage [38]. According to him, the cleaning was carried out three of these points – Lake Baikal, the Wrangel Island and Franz Josef Land. The cost of harvesting areas will cost 20 billion rubles. To assess the costs and amount of work on all the hot spots of the country, it is necessary to prepare the project for each of the points and approve a program of 'general cleaning' of the country. The results of this large-scale work can occur, according to Trutnev, only after 20 years.

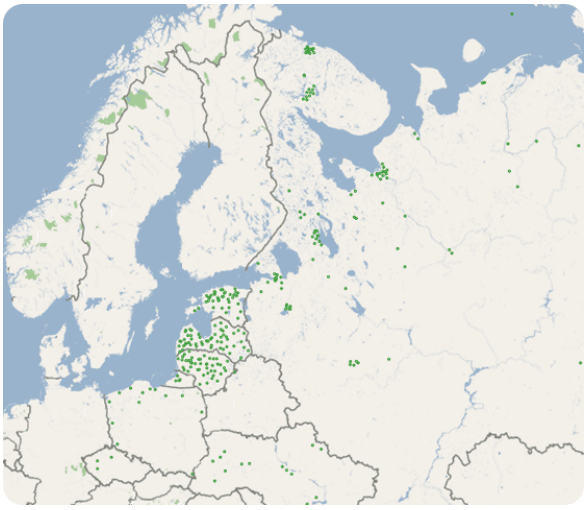
In turn, the Minister of Natural Resources and Environment Minister S. Donskoi in January 2013 noted that it is planned to expand the list of applied projects that would address past environmental damage, including through the preparation and approval of this year's federal program to attract about 100 billion federal, state and private resources. Accordingly, the beginning of the implementation of these projects will help to clean the contaminated areas – all that has been accumulated and the Soviet period, and for a new period of time when a number of companies, not implementing the right technology, have a negative impact on the environment. So far 77 projects identified with the monitoring system, which is built and which captures just such areas that are environmentally hurt and, accordingly, where those trouble spots with the previous environmental damage, said S. Donskoy [24].

FTP 'Liquidation of accumulated environmental damage', the development of which ends in 2013, refers to the situations where the responsibility for the pollution cannot be found, as many companies went bankrupt or were liquidated. The 'polluter pays' is not working, and if not increase funding, can eliminate up to 15 'environmental hot spots' and they, according to preliminary estimates, more than 100. At this rate, the cleaning of contaminated areas in the past, will take 80–100 years. In the optimistic version of Natural Resources expects to spend up to 230 billion rubles from the budget and eliminate at least 75 'hot spots' by 2025 [19]. Road map of the stages of work is as follows: 1) to the 2016 Ministry of Russia finished inventory of pollution, will start working on priority or has worked for sewage treatment projects and the selection of the other; 2) in 2020 to appear base technologies recommended for use in the elimination of pollution and the capacity for the disposal of industrial and domestic waste; 3) to 2025 will be carried all treatment projects of the program [20]. In this case, to clean-up projects will attract business.

In 2012, the first major project of the cleaning of the Arctic was the cleaning of the contaminated islands of Franz Josef Land. By the end of 2012 the island was completely cleared land Aleksandrov, and work began on the island of Hooker. In 2013, the project will be continued in the acute Graham Bell and Rudolph, where the total amount of pollution exceeds 35,000 tons. Cleaning old fuel drums on Wrangel Island in the Russian Arctic could begin in 2014, after switching to the state budget of the federal target Programm on the Elimination of accumulated environmental damage. Naturally, the budgets of the subjects of the Russian Arctic have no financial resources to carry out such work. The cleaning of metal Amderma in the Nenets Autonomous District, for example, need 40–50 million rubles a year for a period of this project for 10 years. The total area of pollution in Amderma of about 8244 hectares, and the amount of scrap metal – about 114.3 thousand tons[12]. And there are points in the municipalities and regions of the Russian Arctic have more than a dozen. Because authorities and management seek other financial sources. Elimination of the past environmental damage, the implementation of energy-saving and other investment projects, environmental focus, including in Trouble spots, has become profitable modes of the international business.

### *The work of the Northern ecological financial corporation – NEFCO (Nordic Environment Finance Corporation)*

In the field of environmental business operates a number of the international funds and organizations. Back in 1994, the governments of the five countries instructed Environment Finance Nordic – NEFCO's environmental program to initiate the Barents region, designed to assist the Russian authorities to improve the environmental situation and reduce the impact on the environment and human health. NEFCO's first report in collaboration with AMAP (Arctic Monitoring and Assessment) 'Proposals for Environmentally Sound Investment Projects in the Russian part of the Barents Region', was introduced in 1995, then in 2003, NEFCO-AMAP prepared a new report, 'Update of the list of environmental 'hot spots' in the Russian part of the Barents Region: Proposal for Environmentally Sound Investment Projects'. Environmental 'hot spots' have become a key point of the Ministers



[12] ECOportal: Ecology on the week № 526. URL: http://ecoportal.su/view_public.php?id=5757 (date of access: 03.03.2013).

declaration, which was adopted at the VIII Conference of Ministers in the environment of the Barents Euro-Arctic November 9, 2007 the Fund environmental trouble spots in the Barents Region (FEGT) included in the 2008 42 trouble spots, in some cases, coinciding with the NPA-Arctic[13]. Its primary aim was to provide a limit on the amount of grants to fund technical assistance, including feasibility studies, business plans and financing. NEFCO/FEGT works with various hot spots in the first place as a financial institution [40, Henrik G. Forsström]. This is essentially transparent to the business of environmental trouble spots, developing investment projects with potential funding them from several sources.

The report of NEFCO for 2012 indicated that it was approved and adopted by the administration, 65 new projects, and administered by the Corporation fund has 549 million [5]. For environmental projects in the Russian Arctic, the fund has access to SEK 2,55 million (300 thousand euros). In this case, if you look at the geography of the whole common investment business projects, most of all on the map NEFCO green dots in the Baltic, but not in Russia or Scandinavia.

For convenience NEFCO projects assigned to the specific categories: water supply and sewage, industry/cleaner production, environmental works and services; energy projects, consulting services. NEFCO, for example, funded the project of reconstruction of communal heating systems Novodvinsk on energy saving[14].

The work takes into account the priority of NEFCO's environmental activities related to hazardous chemicals as defined by international conventions and agreements. First of all supported projects related to persistent organic pollutants such as polychlorinated biphenyls (PCBs), dioxins, PAHs (polycyclic aromatic hydrocarbons), DDT (a dust) with heavy metals such as mercury, lead or cadmium, and their compounds in the form of aerosols , solutions, suspensions, eutrophication (nitrogen and phosphorus discharges), volatile organic compounds (VOCs), Acid Deposition (caused by emissions of SOx, NOx, HF, etc.), substances that deplete the ozone layer and contribute to climate change and a threat to the environment as a whole[15]. Addresses a wide range of activities, including manufacturing, forestry, agriculture, food processing, animal husbandry, fisheries, transportation, energy production and consumption, the utility sector, the treatment of waste-DAMI, issues of resource and energy efficiency. Special attention is given to small and medium enterprises as well as the most effective projects for large productions.

[13] Nefko has a status, as the partner agency of the Russian NPA-Arctic.
[14] URL: http://www.nefco.org/ru/projects/energosberegayushchie_proekty_prakticheskii_opyt (date of access: 09.03.2013).
[15] URL: http://www.nefco.org/ru/projects/opasnye_khimicheskie_veshchestva (date of access: 09.03.2013).

The main purpose of NEFCO is currently funding projects to reduce Russian SLCF emissions, including black carbon (black carbon), which may be the second or third leading cause of global warming after $CO_2$ and methane [2]. Actively promote the need for urgent action, UNEP launched the problem very seriously discussed Arctic countries. After that, the United States took the initiative to limit human impact on the climate system through the reduction of emissions of three substances: methane, 'black carbon' (black carbon) and HFCs (hydro fluorocarbons). It is now proposed scale of the Russian-American project to assess the emissions of 'black carbon' from forest fires in Siberia and the monitoring of its deposition on snow and ice in the Arctic. Have an idea of demonstration projects that show potential for reducing emissions, in particular, projects WWF Russia and US EPA – PNNL in the Murmansk region [43].

### *Ecological risks in the Arkhangelsk region*

It should be noted that the problems of ecological problems in the regions of the Russian Arctic and Northern Russia, environmental risks have always attracted the attention not only of our neighbors (Norway, Finland, Sweden), international environmental organizations, but also the public in the field [16, 22, 44]. And yesterday, today and in the future, environmental issues are in the focus of public opinion. In the Arkhangelsk region, for example, the appearance of the first social movements in the late 80's and 90's. The twentieth century was connected with environmental issues. November 20, 1988 in Arkhangelsk held the founding conference of the association 'Ecology of the North', which led the fight to protect the environment in five areas, including cultural and moral. The pervasive nature of those years were actions against the construction of the nuclear power plant heat in Arkhangelsk, as many years later, by the way, sorry, when exacerbated problems with heating, electricity and growth rates. Worked to increase public awareness, formation of its environmental culture, to establish a regular environmental monitoring of the nature and operation of enterprises in the region, conduct an examination of a number of objects.

In a paper published in 1992, 'Black Book in Pomorye' were first collected and published in separate different materials while the tragedy of the White Sea and the Northern Dvina, the Plesetsk cosmodrome, defense and Severodvinsk nuclear test site in the New Earth [42]. The scientific revolution was introduced shaped emotionally colored concept fatal triangle, basically adequate concept hotspots. 'We live in a fateful triangle, surrounded on all sides by rockets Plesetsk, Nenoksa, nuclear reactors, nuclear submarines, nuclear test site Novaya Zemlya. Military, scientists service them, assure the public that we are worried for nothing, everything is within tolerance. I'd love to believe it. But why did people get sick more often? Where and what is the limit of acceptable risk, beyond which begins the process of irreversible extinction of all life? What will be

the last straw: another untreated water mill, the unsuccessful launch of the missile or the release of radioactive gases into the atmosphere?' [42].

Trouble spots in the Arkhangelsk region in the late twentieth century were identified: Plesetsk Cosmodrome, the city of Severodvinsk and Novaya Zemlya. Such potentially dangerous to the public, they remain today, although much has been done to reduce risks. Moratorium on nuclear testing range in the Central Russia (New Earth). Centre for Nuclear Shipbuilding in Severodvinsk, Plesetsk, New Earth are currently the object of industrial production and tourism [27]. However, the continued contamination of land that occurs when the rocket launches. Began commercial cleaning areas falling exhaust launch vehicle in the NAO Mezenskogo area of 'space debris' cosmodrome Plesetsk evolved from environmental hot spots in the hot social-point and shame corrupt Russian Space Forces. Total Plesetsk, according to official data, the use of 21 districts falling total area of 140.7 thousand square km, including 16 on the ground, and the rest – is in the seas of the Arctic Ocean. Only on three main areas of incidence (Naryan-Mar, Koidu, Moseeva) by 2000 were dropped more than 7 tons of scrap metal – the first stages, shutters fairing, tail section of the missile [40]. In 2007 have been found and removed from the area by a large 148 metal fragments. In 2008, the Space Forces signed a government contract with companies engaged in search and removal of waste parts of carrier rockets, launched from the Plesetsk cosmodrome, the fall of the districts located in the Arkhangelsk Region and the Komi Republic in the amount of 15 million rubles [16].

However, the ecological problem of the clearing from the 'space' pollution on the European North of Russia was transformed into another trouble spot, connected with one of the main problems of thre modern Russia, including corruption. In 2005–2008 in violation of the established order and the organization of the competitions the winner is the same center – JSC NPITS 'Armint', who had the necessary resources to carry out the planned activities. With him were three state contract signed for a total of 56 million rubles. In turn, the center signed subcontracts with three other companies and pay them a total of 46 million rubles [19]. Officers of the Space Troops actually controlling the completeness and quality of public contracts, whereby the organizations involved finding and removal of fallen parts practically engaged. Former deputy cosmodrome 'Plesetsk' A. Okhlopkov in charge in 2007–2008. State contracts for cleaning parts of launch vehicles in the Arkhangelsk region and Komi Republic was accused, without the formation of the Special Commission and circled signed acts of acceptance, forging signatures chief cosmodrome for a fictitious cleaning debris. Experts said that bribery and kickbacks – is a common corruption scheme of the local military. Colonel A. Okhlopkova colleagues were then in court from 3.5 to 11 years in

prison. In 2009, he was accused of taking bribes to 750 thousand rubles, and damage to the state of 15 million rubles, but the jury in the court acquitted the former colonel, transferred to this post with an increase of Deputy Commander of the space forces near Krasnoznamensk.

In an article published by the newspaper 'Izvestia' April 20, 2012, it was noted that several high-ranking military Plesetsk fall for these scams with cleaning debris. In 2011, seven years of the colony for a bribe of two million rubles was the former head of the spaceport, Lieutenant-General Anatoly Bashlakov who, occupying the post from 2003 to 2007, also sold bogus contracts for bribes utilizers of hazardous waste. In March of 2012 to 3.5 years in prison, was sentenced Lieutenant Colonel Dmitry Tolbukhin, which was the successor Okhlopkova in his post, and was also responsible for garbage collection. In April 2012 the Supreme Court upheld the harsh verdict Colonel Konstantin Petrischeva of FSUE 'Central management of material resources and international relations', which received 11 years in prison for taking bribes from businessmen, fictitiously removes debris from the northern territories. The damage was estimated at 16 million rubles. In addition, because of the machinations in the disposal of debris missiles budget lost another 20 million rubles. Most scams in Plesetsk were revealed after his arrest for fraud heads research and production testing center 'Armint' Anatoly Manin, acting as a contractor of this work [28].

Surely, we all admire the achievements of Russia in space exploration. Plesetsk – is the subject of our national pride. Currently, however, the consequences of missile launches from Plesetsk not only have negative environmental impacts, expressed in constant pollution of large parts of the Arctic and the North of Russia, but also are associated with corruption as heptyl, corroding everything alive and penetrating into Russian society, even in the military. Scraping environmental hot spots, or rather the budgetary resources allocated for this work, not only in space but also in other areas of the Russian state are, unfortunately, the corruption factor system, which eventually creates a 'trouble point of corruption', or even in conflict situations public administration, in business environment. Communication Ecology and corruption at the Plesetsk cosmodrome example – a prime example of the 'hot spots' that are harmful not only to nature and society, but also the souls of men. This is an absolute moral emergency with disastrous consequences.

## *Conclusions*

In conclusion, I would like to emphasize that when we speak and write about the hot spots associated with the quality of the environment, its protection, it is preferable to use in the environment is not just the concept of HS, namely the concept of environmental trouble spots ('Environmental trouble spots', abbreviated EHS) because of its interdisciplinary interpretations.

Russian legislation is long past time to give a clear legal definition of environmental htroubleot spots, as well as the concept of past environmental damage, etc.

Basic information, indicators of environmental pollution in trouble spots of the Russian Arctic, including potentially dangerous, to be updated annually and published in a special report on the image and likeness have worked in practice techniques in preparation of the national report 'On the state and Environmental Protection of the Russian Federation in 2011', etc. This can be a report on the state of all 194 environmental trouble spots Russia or only on the environmental trouble spots of the Russian Arctic (100, 80, 50... 30). They must be constant monitoring.

The problem of minimizing environmental risks, sustainable development of the society is determined not only in world forums, at the state level, but each regional social environment, each local community at the level of the municipal settlements. Their environmental trouble spots are available in each region, and municipality of the Russian Arctic (landfill waste, recycling waste, potentially dangerous to human production, air and water pollution, etc.). Minimizing the risk to life and the negative social and economic consequences in the Arctic hotspots clearly requires adequate policies and a system of governance not only at the state level, but also at the regional and local (local) levels.

In everyday reality, each person makes the choice, sometimes not particularly thinking about the consequences of their daily activities to save the environment. It is therefore essential to develop ecological awareness; revive the system of environmental education in pre-school, secondary and higher education institutions; everywhere build environmental awareness, using social networks, information and communication technology (ICT), Day of the Arctic and other features.

Certainly, there is its problematic, the critical field at national, regional and municipal government of the Russian Arctic. In the social sphere of the northern territories also can identify a number of 'trouble' social and political problems, which always attracted the attention of both government and civil society. Is corruption, the situation in the housing (ES Tiksi), the large gap in incomes, low levels of a large part of the population in the harsh climatic conditions of high latitudes, unemployment and others.

In the public management and the Arctic policy at the forefront of the twenty-first century. come not just narrowly environmental, and socio-political priorities related to the conservation and savings, increase human capital, the provision of decent by today's standards and quality of life of people in a supportive environment, their safety. The strategic goal of environmental policy in the Russian Arctic today is not just the conservation of ecosystems and biodiversity, and quality

improvement of public health, quality of life in extreme Arctic conditions, increasing life expectancy, the formation of a positive environmental culture and behavior, including the subjects of economic , political and social activities at all levels, including regional and municipal, building on the positive experience of the indigenous peoples of the North. If you do not talk, of course, the development of the Arctic space exclusively in shifts, which has its own strengths and weaknesses. The scientific literature is proposed to introduce a ban on the Russian Arctic, the creation of new settlements with a permanent population, a low priority, directing investment to modernize existing Arctic settlements and extensive use of the watch [39, Fauzer V. V.]. Not everyone here is undeniable, especially from the standpoint of geopolitics, security of the Russian Arctic, but of course, this perspective requires the development of today suspended political decisions.

Trouble spots are constantly reproduced in the economy (crisis, recession, raiding, grinmeyl, taxes, loans, etc.). With the ongoing global financial crisis 2008–2013. there are whole countries where the crisis particularly hurts the welfare, employment, quality of life (Greece, Spain, Portugal). Worsening of the crisis in Cyprus in March 2013 in the press have been called 'financial hot spot' of Europe. The slowdown in growth, the crisis in the global economy is obviously an effect on the inflow of foreign investment for the development of the Arctic shelf and other projects. With reference to the Arctic is not the first topic discussed on the development of the special economic regime, which would absorb resources without depleting them and destroying nature of the region[16]. Urgent attention of the state and society demand issues of environmental safety in the development of hydrocarbon fields in the Arctic. We need new technologies, modern equipment with a large margin of safety, constant monitoring, control of the situation in the organization of the development of oil and gas on the Russian continental shelf. Not only experts, but society as a whole should have a clear and reasoned answers to questions about whether it is possible to start production of oil here and now. Do Rosneft, Gazprom, their foreign partners to eliminate the possibility of flooding in the event of its occurrence? Need constantly updated, approved at the state level, the list of potentially dangerous environmental trouble spots in the Russian Arctic, associated with the production, logistics, transportation, oil and gas (Prirazlomnaya, Shtokman, Varandey, Sabetta, etc.). Preventive measures to prevent emergencies and minimize risks can reduce the threat of the arctic trouble spots.

Hotspots concept is widely used not only in the environment, but also in international politics and government (hot spots associated with an armed conflict, in peace time, local wars). Un-

[16] URL: http://www.ras.ru/digest/showdnews.aspx?_language=ru&id=4e5b217d-15b1-4f85-9401-5db17ec82331 (date of access: 06.03.2013).

der the trouble spots usually mean the military (armed) conflicts that take place in a peaceful non-military time. In 2010, there were in the world, for example, 33 hot spots, which suffer most local people [6]. At present, the numbers of hot spots, where there are armed conflicts, include Afghanistan, Syria, Mali, etc. In Russia – this is the North Caucasus (Dagestan, Ingushetia and Chechnya). In the Arctic, there are currently no hot military points, but Arctic countries (United States, Norway, Canada, Russia) is actively arming, increasing their defensive capabilities, constantly carrying out military exercises. Obtained as in the theater, if the gun is hanging on the wall, it will necessarily ever shoot. In general, the entire Arctic could be designated as potentially dangerous hot spots, if there will be realized the worst, worst-case scenario of the geopolitical situation. It is no accident Vladimir Putin in his speech February 27, 2013 at the enlarged session of the Ministry of Defense said the danger of militarization of the Arctic, 'At the same time made the methodical attempt in any way to undermine the strategic balance. Actually started the second phase of the US global missile defense system, probed the possibility for further expansion of NATO to the East, there is a danger of the militarization of the Arctic' [46]. Particularly active, the process of militarization of Norway – nearest neighbor Russia.

Broad interpretation of the concept of 'trouble spots' (ecology, conflict, management, society, economy) allow for a comprehensive analysis not only conserve the Russian Arctic, but also to identify the interaction of the subject relationships between the studied sites, areas of society. Beyond the scope of this work are the problem of preservation of ethnic and cultural landscape, language and culture of the indigenous people of the North, both large and small. I think that this topic requires a separate analysis, and it can also indicate potentially dangerous hot spots of the Russian Arctic. Confirmed by the interdisciplinary study of the situation, hotspots on the level of regions, municipalities in the Russian Arctic. As you can see, the range of problems is extensive and it can be conducted not only on the environmental hot spots. Obviously, in a magazine article indicated only some 'Arctic hot spots'. I hope that the Year of the Environment in the Russian Federation, the topic will be further developed and media coverage, as well as issues related to the operation of protected areas, the humanitarian dimension of the Russian Arctic.

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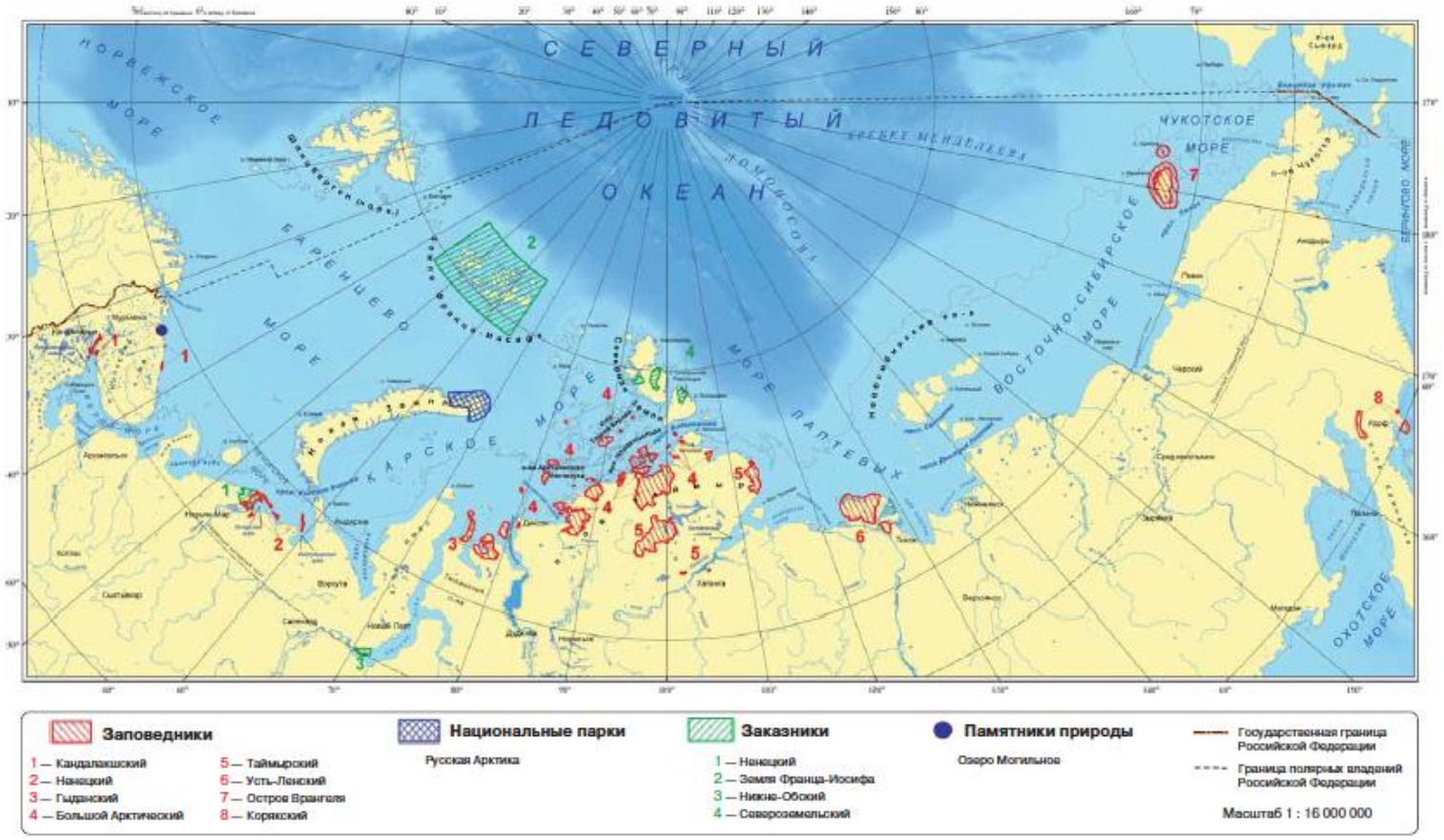
**The map 'The Arctic zone in the Russian Federation'**


*Resource:* Lukin Y. F. Russian Arctic in the changed world. Arkhangelsk, 2012. URL: http://narfu.ru/aan/Russian_Arctic_Lukin/ (date of access: 06.04.2013).

**The map 'The Federal marine and coastal protected areas of the Russian Arctic'**

Карта 4.1. Федеральные морские и приморские особо охраняемые природные территории российской Арктики




Составитель Макаров А.В.
Источник: Границы заповедников и заказников по [Картографической базе.., 2002–2010]

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UDK 323.174

# IMAGES OF THE RUSSIAN ARCTIC IN THE OFFICIAL DISPUTE: THE RESEARCH FOR THE EXPLANATION FOR THE MACRO REGIONAL IDENTITY[1]

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**Abstract.** This article analyzes the external view of the problem of the socio-cultural community of the Arctic territories of Russia and macro perspectives of forming a single regional identity of the Arctic. Analyzes the key meanings of the Arctic identities in the official discourse

**Keywords:** *identity, macro regional identity, Arctic macro region, official dispute*

The concept of the macro-regional identity can be interpreted in the several planes, depending on the interpretation of the term region. Thus, the emerging supranational education (in particular, the European Union), and inter-territorial communities within the state called macro regions (Ural, Far East, etc.). However, the macro-region can be understood as a territorial space, separated from the other formed boundaries, systems of communication between people and their common cultural memory and the 'picture of the world'. In other words, the history of the development of the territory, the general pattern of economic activity and way of daily life support idea of common space on top of the administrative boundaries, and on this basis - a stable macro-regional identity (e. g., communities of the Russian North, metallurgy of the Urals, Siberia, etc.) [1]. One of the macro-regions of the plan is the Arctic, the study of which was highlighted in recent years in the connection with the strategic role of the macro-economy for the future of Russia.

The Arctic is associated with ice, snow, northern lights, the Arctic Ocean, the polar bears, and other characteristics associated with the perception of winter and the cold. The unique nature as a constituent element of the image of the region is complemented by the growing interest in the territory at the political level, many states, because the Arctic is home to vast energy resources, particularly oil and gas. Russia, being the largest of the Arctic countries, has also entered into a 'struggle' for the region, considering the Arctic as a priority area of strategic planning for the future development of the state. Repeated statements by the President of the Russian Federation

[1] This article was prepared by the project 12-6-9-007-ARCTIC 'Forming an integral identity of the macro region of the Arctic Russia'.

on the importance of the Arctic, the continuing development of the law 'On the Arctic zone of the Russian Federation' and the adoption of the Strategy of the Arctic to 2020 testify to this.

Today, the basic piece of legislation that determines the state policy in the Arctic, is the foundation of the state policy in the Arctic up to 2020 and beyond (further – Basics)[2], approved by the President of Russia September 18, 2008 It was a new term – is the Arctic zone of the Russian Federation, describing the Arctic macro-region in the political, economic and legal terms.

In accordance with the base, under the Russian Arctic is understood part of the Arctic, which includes all or the part of the territory of the Republic of Sakha (Yakutia), Murmansk and Arkhangelsk regions, Krasnoyarsk region, Nenets and Yamal-Nenets and Chukotka autonomous regions defined by the State Commission of the Council of Ministers on the Arctic from April 22, 1989, as well as land and islands mentioned in the Decree of the Presidium of the USSR Central Executive Committee of 15 April 1926 'On declaring the Soviet territory of land and islands in the Arctic Ocean', and adjacent to these territories, lands and islands of internal waters, territorial sea, exclusive economic zone and continental shelf of the Russian Federation, within which Russia has sovereign rights and jurisdiction in accordance with international law. Thus, combining within its borders seven unique subjects of the Russian Federation (Republic of Sakha (Yakutia), Murmansk Oblast, Arkhangelsk Oblast, Krasnoyarsk Krai, Nenets and Yamal-Nenets and Chukotka Autonomous District), the Arctic at the same time presents a separate macro-linking within its borders seven parts, which have common natural geographic and the socio-economic features of an outdoor outlet to the ocean, large mineral reserves and resources, severe weather conditions, etc.[3]. Therefore, the actual problem is a socio-cultural community of these areas and the prospects of forming a single regional identity of the Arctic.

Relevance to the Arctic as a single macro-region stated in the Report on Human Development in the Arctic (2004) [2], where the North (and the Arctic as part of it) was first considered as a distinct region with its own identity Arctic. In the summary of the report says that it is 'the first comprehensive scientific review of the circumpolar North as a distinct region of the world. The report contains a comprehensive assessment of the socio-economic, cultural and political potential of the Arctic' [2, p. 6]. Despite the compartmentalization between Arctic states, the report noted that in the contemporary Arctic increasingly appears as a distinctive region, integrated intergovernmental initiatives such as the strategy of the Arctic Environmental Protection (1991), the

[2] Principles of state policy in the Arctic up to 2020 and beyond. URL: http://www.rg.ru/2009/03/30/arktika-osnovy-dok.html (date accessed: 10.03.2012).

[3] The draft Federal Law 'On the Arctic zone of the Russian Federation' (1.23.2013) in the Russian Arctic, included nine Russian regions. See the map on page 37 of the magazine (note the magazine 'The Arctic and North').

Northern Forum (1991), the Arctic Council (1996). In this case, it is not about the disintegration of the region, and the positioning in the Arctic as a special space in two dimensions as a factor in the northern identity and as an arena of innovative international and inter-regional initiatives.

What is the understanding of common regions that make up the Russian Arctic, is characteristic of the official discourse, which defines what fills the Arctic identity? We look at the key meanings of Arctic specialness in regulations and President of Russia from 2008 to the present.

In the Principles of the State Policy of the Russian Federation in the Arctic for the period up to 2020 and Beyond, The features of the Russian Arctic, influence the formation of public policy in the Arctic:

- ✓ extreme climatic conditions (including in the permanent ice shelter or drifting ice in the Arctic seas);
- ✓ focal nature of industrial and economic development areas and low population density;
- ✓ the distance from major industrial centers, high resource intensity and the dependence of economic activities and livelihoods of the supply of fuel, food and essential commodities from other regions of Russia;
- ✓ low stability of ecological systems, and determining the biological balance and climate, and their dependence even from minor anthropogenic influences.

In other words, the basic meaning, describing the Arctic feature, declared climate, nature, ecology, economic activity and population.

Since the publication of Principles in 2008, discussion of the Arctic as a special Russian policy intensified because of the development strategy for the macro-and the law 'On the Arctic zone of the Russian Federation' (it is not passed down to this day). In the interview, congratulations parties Arctic forums and conferences on international negotiations president constantly returns to the theme of the Arctic importance and uniqueness.

Through-line of these materials is the understanding of the Arctic and the Russian Arctic as separate regions, treating each other as a common space, and part of it. And the understanding of the region is formally structured administrative sense and geo-referenced. This attitude, according to the legislator, determines the need for a common policy and management processes in the macro, forms the image of a single 'object of state policy', 'single regional state policy in the Arctic has no legal basis either at the federal or regional levels. It can be stated that the Arctic zone of the Russian Federation is not a single regional unit of the country, the center or focus harmonious, mutually beneficial process of regional development'[4].

[4] The project concept FL 'On the Arctic zone of the Russian Federation' / Ministry of Regional Development. URL: http://www.minregion.ru/upload/documents/2010/03/2006-12-22-concept-fz-arctic.doc (date of access: 03.10.2012).

Most clearly demonstrated that ground in the proposals for the draft Federal Law 'On the Arctic zone of the Russian Federation'. Isolation of the Arctic zone in them is not seen as 'the result of the physical-geographical or biological-environmental research', but as a 'political act', taking into account 'the natural, social, demographic and political realities, as well as considerations of continuity and convenience of public administration'[5]. This means that the border region is formed not only of the subjects who have access to the Arctic Ocean, and the entire political subdivisions subjects.

The next part of the Arctic singularity serves idea inseparable connection of the region with Russia and the Arctic world. Thus, on the one hand, being the largest of the Arctic and Russia is positioned as part of the Arctic, which in addition it includes four other Arctic states (Canada, USA, Norway, Denmark) with the exclusive economic zone and continental shelf in the Arctic Ocean, 'we – the largest Arctic nation, because we have the longest coastline and largest of the sea, so to speak, the way'[6]. On the other hand, integration into Russia defines the mission of the region for the development of the country: 'With its prominent feature, Arctic both inextricably linked to the rest of Russia, is an integral part of its national identity, the legendary heritage of the past and future development. In the forecast period the Arctic region on a mission of financial and economic support to the country's transition to innovative development'[7].

Thus, the specific macro-Arctic Russia led to the formation of the region as an independent object of public policy, which in turn is due to specific national interests in this region, as the Arctic region declared a 'geo-strategic interests of Russia' that determines the development of the country. In essence it is about the way the resource base of the country's future. Thus, opening a meeting of the Security Council 'On protection of Russia's national interests in the Arctic', Dmitry Medvedev said explicitly that the Arctic is a country of the strategic importance and should be a resource base for Russia in the XXI century: 'The use of these energy resources of, these resources – is the key to security Russia's energy security in general'[8].

The strategic importance of the region tied to the resource component, and natural resources of the Arctic, where the focus abundant oil, gas and other mineral resources. The Arctic is home to some of the world's largest oil reserves, 'in the Arctic zone produced much of the Russian

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[5] Proposals for inclusion in the draft Federal Law 'On the Arctic zone of the Russian Federation'. URL: minregion.ru/upload/documents/2011/11/021111/021111_predl.doc.

[6] Meeting with media representatives of the Far East and Siberia. November 11, 2011, 13:00, Khabarovsk. URL: http://prezident.rf/news/13479 (date of access: 03.10.2012).

[7] The development strategy of the Arctic zone of the Russian Federation and national security for the period up to 2020, M., 2010. C. 10. URL: http://narfu.ru/ development program / Stategy_arctic.pdf (date of access: 10.03.2012).

[8] Speech at the Security Council, 'the protection of the national interests of Russia in the Arctic'. URL: http://prezident.rf/news/1434 (date of access: 03.10.2012).

diamonds, 100 % antimony, apatite, phlogopite, vermiculite, barite, rare metals, and more than 95 % platinum, 90 % of nickel and cobalt, 60 % of the copper in the Arctic... the main reserves are concentrated the most important minerals that are crucial for the development of the national economy'[9]. The perspectives of the hydrocarbon potential of the European part of Russia in the next few years are related to the development of offshore Barents sea: 'What we need from our presence in the Arctic? First, we need to use the resources in the Arctic, in each way to develop them'[10].

Positioning itself as a part of the Arctic world cannot do without constructing the region's role in the international sphere. The prevailing theme here is the idea of the cooperation with other Arctic states. Thus, at a joint press conference with Prime Minister Jens Stoltenberg of Norway April 27, 2010 the President stated: 'We – the Arctic countries. For us, the Arctic – it's not something near the top of the globe, is an abstract, but a very specific theme of the cooperation;. Responsibility for the peace in the region, foster the main objectives of the parties declared: 'Russia and Norway, together with other countries in the Arctic region have a special responsibility to maintain the Arctic as a zone of peace and for the all-round development in the area of the international cooperation in bilateral and multilateral formats'[11].

One of the main topics for the cooperation proclaimed willingness to cooperate in the Arctic research. This is also confirmed in the principles of the state policy in the field of the environmental development of Russia until 2030, which stipulates 'the development of the international information exchange and the participation in the international projects in the priority areas of science, engineering and technology in the field of the environmental protection and environmental safety, protection of the environment, including in the Arctic'[12].

But as a place of rich deposits of the natural resources of the Russian Arctic needs not only to diplomatic protection. Performs the role of protector is Navy: '...tool to protect the national

[9] The development strategy of the Arctic zone of the Russian Federation and the national security for the period up to 2020. M., 2010. P. 13.

[10] Meeting with journalists of the Urals Federal District. November 28, 2011, 20:00, Yekaterinburg. URL: http:// prezident.rf/news/13705 (date of access: 03.10.2012).

[11] Joint statement by the President and Prime Minister of the Kingdom of Norway. April 27, 2010. URL: http://prezident.rf/% D1% 81% D0% BF% D1% 80% D0% B0% D0% B2% D0% BA% D0% B8/534 (date of access: 03.10.2012).

[12] Approved the basis of state policy in the field of environmental development of Russia until 2030 April 30, 2012. URL: http://prezident.rf/% D0% BD% D0% BE% D0% B2% D0% BE% D1% 81 % D1% 82% D0% B8/15177 (date of access: 03.10.2012).

economic interests. In particular, in the regions such as the Arctic, where lies the rich biological resources, reserves of hydrocarbons and other minerals»[13].

Texts of the Presidents speeches, along with the theme of the international cooperation there is awareness of the interstate competition for resources in the Arctic, so the research and study are described as important for the 'expansion of the borders of Russia in the Arctic'. Symbolic value in the 'struggle' for Arctic resources was a study of the continental shelf and the installation of the Russian flag on the bottom of the Northern Arctic Ocean. Such labeling was perceived boundaries of the State E-competitors are very sensitive, as an attempt to get exclusive rights to develop the Arctic fields, not having under a void.

Personalized protector for the intersts of the Arctic is not only the President of the Russian Federation, but also one of the most famous explorers in the world – Arthur Chilingarov, which since August 2012 special envoy for the international cooperation in the Arctic and Antarctic[14]. He will be responsible for the conduct of the scientific research in the Arctic, environmental and conservation activities, ensuring safe navigation along the Northern Sea Route, mitigation transport tankers, etc.

The sense that the image of the Arctic serves the unique nature of the region and the need for its preservation. In numerous speeches the president has repeatedly stresses the readiness of Russia to contribute to the preservation of the unique nature of the Russian Arctic. In addition to the unique nature of the region are also characterized by extreme-normality ('natural extreme') and severity 'of the Arctic zone is characterized by extreme climatic conditions: low all year round temperatures, the long polar night and the long polar day, frequent magnetic storms, high winds and storms, dense fogs, monotonous desert and arctic tundra, permafrost, high, far ahead of the world average, the dynamics of climate change in recent decades'[15].

Severnaya Zemlya, the edge of the harsh climate, with large areas of the permafrost area is sensitive to the human activities. Environmental characteristics of the image of the region are the adjectives vulnerability requires protection. Therefore, a program to clean up the Arctic: the so-called 'spring-cleaning of the region' of debris launched in 2012 In July, President Vladimir Putin met with participants eco expedition to the archipelago of Franz Josef Land, and noted that the

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[13] Meeting on the Implementation of the state program of armaments to equip the fleet. July 30, 2012, 20:00, Severodvinsk. URL: http://prezident.rf/% D0% BD% D0% BE% D0% B2% D0% BE% D1% 81% D1% 82% D0% B8/16086 (date of access: 03.10.2012).

[14] Vladimir Putin has signed a number of decrees on the appointment of the Special Representatives of the President. August 2, 2012. URL: http://prezident.rf/news/16144 (date of access: 03.10.2012).

[15] The development strategy of the Arctic zone of the Russian Federation and the national security for the period up to 2020. P. 16.

Arctic – 'this is a very vulnerable region of the planet, but very important for the whole of the Earth's ecosystem. Therefore, for him, for the region, should be treated with special care... we'll have to spend a certain average properties of this environmentally friendly, inherited from the past, it is including the contamination of the Arctic. Today's event – your expedition – we are, in fact, a great start to a new project: Spring cleaning the Arctic'[16].

The Arctic is also an important region in the research of the causes of the climate change. The research necessitates the need to create a multi-purpose space system 'Arctic' and the formation of sub-systems of hydro-meteorological and the climate monitoring[17].

Another advantage of the Arctic region is the geographical location and channel of communication, due to its maritime character. Relationship with the oceans increases the role of maritime factor in the life of the region. The strategy of the Arctic zone of the Russian Federation and national security for the period up to 2020, recorded that most of the settlements in the region, located on the coast of the Arctic seas and 'violation of maritime transport, the late delivery of fuel, food and other goods to the Arctic due to short deadlines Arctic navigation lead to serious social and economic consequences, including the threat of life living and working here of the population'[18].

The symbol and the pride here is that through the region is the shortest shipping route between Europe and Asia – is the Northern Sea Route, 'He is able to link the European and Far Eastern sea and river routes, and by reducing transport costs significantly revive business ties of the Russian and foreign partners'[19].

Among the fundamental distinguishing features of the region are particularly noteworthy national components. In the official discourse, much attention is paid to the need to 'preserve the original environment and traditional way of life of indigenous people'[20]. In this understanding of the group as a native and original combined with the need to integrate them into the modern post-industrial way of life. Ensuring the rights of indigenous people to the distinctive socio-

[16] Meeting with members of the environmental expedition to the archipelago of Franz Josef Land July 30, 2012. URL: http://prezident.rf/% D0% BD% D0% BE% D0% B2% D0% BE% D1% 81% D1% 82 % D0% B8/16082 (date of access: 03.10.2012).

[17] Security Council meeting on the climate changes. March 17, 2010. URL: http://prezident.rf/ news/7125 (date of access: 03.10.2012).

[18] The development strategy of the Arctic zone of the Russian Federation and national security for the period up to 2020. P. 16.

[19] The speech at the meeting of the Security Council "On protection of the national interests of Russia in the Arctic." The decree.

[20] Participants and guests of V Summit of the leaders of the indigenous people of the Arctic region. April 14, 2010. URL: http://prezident.rf/letters/7476 (date of access: 03.10.2012).

economic and cultural development, protection of their original habitat, the traditional way of life and economic development strategies in the project area is listed as a priority.

The nature of the search for a balance between the development of the Arctic and the preservation of the traditional ways of life of indigenous people. Thus, in Moscow on 14–16 April 2010, at the Fifth Summit of the leaders of the indigenous people of the Arctic region, 'Industrial development in the Arctic to climate change' in which indigenous leaders has signed a declaration of the Arctic. The document calls for the impact of the growth of industry and natural resources in the face of the climatic changes in the Arctic nature, health and livelihoods of the people and their culture. 'We affirm the right of our people to use the land of our forefathers, to manage its resources to protect its ecosystem, is the condition of our survival and to preserve the unique culture and the protection of sacred sites, archaeological and historical sites located in the territories of the original settlement',[21] – said declaration in the Arctic.

Additionally announced on the need for the traditional crafts, including reindeer. At the May press conference in 2011 the president even specially selected question from the magazine 'Vingy vada' ('The Tundra'). In it, the author draws attention to the problem of reindeer in Russia and asked how the government can support the traditional view of the indigenous inhabitants of the Arctic – deer in the industrial growth and global warming. In response, Dmitry Medvedev stressed that the government will support this type of activity as a way of life which forms a large number of northern people through the adoption of appropriate programs (for example subprogram 'Development of the North reindeer and horse breeding')[22].

What else makes the people of the Arctic Russia, in addition to having a unique community with its own way of life? Its difficult living conditions and the need for the intervention and assistance from the state. '...We have to think about the people (or, on the contrary, even in the first moments) who live in the neighboring regions, and always try to help those of our Northern people that fall into this Arctic zone and whose life is not easy',[23] – said President of the question Tatiana Gostyukhin, program director of the North district broadcasting company 'Yamal-Region'. Assistance, in particular, is presented in the targeted programs to support Indigenous People: 'I'm meeting today with our colleagues who represent the appropriate ethnic community, they all rec-

[21] In Moscow was signed the Arctic declaration // The society of the Russian and Estonian friendship. 20.04.2010. URL: http://www.kaminski.ru/index.php/newstop/3-rsskat/279-2010-04-19-21-20-48?tmpl=component&print=1&page= (Date of access: 03.10.2012).

[22] Press conference of the President of Russia. May 18, 2011. URL: http://prezident.rf/news/11259 (date of access: 03.10.2012).

[23] Meeting with journalists of the Urals Federal District. November 28, 2011. URL: http://prezident.rf/% D0% BD% D0% BE% D0% B2% D0% BE% D1% 81% D1% 82% D0% B8/13705 (date of access: 03.10.2012).

ognize that different channels have come money and business development, and on the development of traditional crafts and to education. Because, of course, people – this is the main value'[24].

The value, which allocated the region, recorded in his need to constantly explore, to make a research. April 10, 2012 at a meeting of the Board of Trustees Chairman of the Board of Trustees of Vladimir Putin awarded a grant of Arkhangelsk regional branch of the Russian Geographical Society for a project 'Floating University', whose main goal is to enable students to 'study the Arctic in the Arctic'. The vessel 'Professor Molchanov' summer held the first 40-day expedition to the Northern (Arctic) Federal University.

Thus, in the official discourse the Arctic presented in different semantic categories (table 1). This unique natural environment and a source of minerals and important object of geopolitics, and the native place of the indigenous people of the North. However, a fundamental principle and a fundamental sense of specialness that region serves geographic marker. First of all, it is the Arctic region, Circumpolar, North. It is a given fact draws boundaries mega and should be a key meaning for positioning specific identity of its regional community. In this context, is not scientifically justified is the use in NArFU concept of the 'North-Arctic region'. The Arctic and the North – is not one, but two paired, but not identical in the region having its borders and its informative different meanings.

*Table 1*

***The basic meanings of the Arctic specialness in the official discourse in 2008–2012***

| Category | Features |
|---|---|
| World Arctic | Separate mega region (macro region) |
| Russian Arctic | Separate region within the mega, part of the global Arctic largest Arctic nation, plays a special role, the Russian Arctic, macro region, the object of public policy, an integral part of Russia, a strategic region; in homogeneously developed region, the most important and fragile region |
| Resources | The resource base for the Russian future, a pledge of energy security. Its abundant, energy wealth, the rich bio-resources. Most of the state's role in the economic development |
| The research of the Arctic | Innovation. The development of the Arctic shelf deposits. 'Floating University'. Kola and Archangel scientific centers. |
| International relations | Border area, security, international law, joint projects, cross-border cooperation, the international exchange of information, international cooperation. Responsibility for peace and the development in the region. Navy |
| Communication, Geographical Position | North. Northern Land. Circumpolar. Seaside character. Transcontinental system. The Northern Sea Route, the relationship with the oceans |
| Ecological Safety | Protection, conservation of the region. Climatic change, the challenges, the environment. Vulnerable region, which is important to the ecosystem. Removal of debris, 'spring-cleaning in the Arctic'. Indicator of climate change equations |

[24] The same place.

| | |
|---|---|
| Nature | The unique nature. Natural extreme. Ice |
| Society, People | The indigenous people of the North, small nations. Traditional activities (reindeer herding, fishing). Russian coast-dwellers. Ancient civilization. polar |

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# GEOPOLITICS

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## EASTERN VECTOR OF POLITICS IN RUSSIA: POTENTIAL AND PROBLEMS OF THE REALIZATION

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**Abstract.** The article discusses the need for transition from an extensive to an intensive strategy of modernization processes in the Far Eastern regions as the key to their success. The 'new' industrialization of Yakutia should focus on energy saving technologies, the use of local labor resources and improving the quality of human life

**Keywords:** *geopolitics, integration, challenges industrialization, natural resources, extensity, in-tensity*

The Asia-Pacific region is the leader of a global economic growth today, and the nearest neighbor Russia. We have to remember that, of 17.1 million square km in Russia for almost 14 million square feet. Km is in Asia. Even the simple proximity of any country to develop dynamically and are more resistant to crises the region gives it the geopolitical and geo-economic preferences. Russia's north-east has also two clear competitive advantages in relation to other parts of the country: 1) the geo-strategic 'bridge' between Europe and Asia; 2) the main resource and the energy potential of the country. These two strategic advantages to skillfully defend and fully used for the successful development of the state. Reformatting eastern geo strategy Russia means a fundamental change of the investment, migration, ethno and customs policies to create a favorable climate for the development of the region. Selecting the wrong regional development strategy, or lack thereof – is a serious threat to national security.

The Far East has everything you need to become an integral part of the future epicenter of the world development. However, many problems associated with the Far Eastern territories underdeveloped infrastructure, and turns them into a sort of 'Inhabited Island' on the one hand, separated from the 'mainland' crazy transport and other fees, which make locally produced products initially uncompetitive in the domestic market on the other – from rapidly developing Asian countries due to sharp differences between the standards of the economic and administrative mechanisms. It should also be noted that the Far East (41 % of the territory of the country) is actually just started timidly examined for amounts of mineral reserves.

‘Economic island’ Far East continues to ‘drift’ in the format of the raw material supplier and its products of primary processing both for Russia and for the Asia Pacific region. Unfortunately, the implementation of mega-projects of the regional ‘spill’ continues to conquer the Soviet extensive model northern expanses with serious social and humanitarian consequences. Geopolitical expediency as plain text dictates its full integration of the Far East to the Pacific ‘mainstream’. Creating knowledge-intensive and resource-intensive industries using the most advanced technologies in the background of the effective use of available human resources is the main direction of development of the economy of the Far Eastern territories.

The Far East and the northeastern China is well positioned to complement each other, here there is a huge market potential interactions. Very real prospect of the general development of the neighboring territories of the two countries and the establishment of a real and effective in practice, cross-border region. True, we act as a raw material appendage of our neighbor. Reach a hand in the federal government to the processing and export of products made out of it - a rhetorical question. Whether income from cross-border cooperation and trade with China to invest in the modernization of the real north-eastern territories? There not a danger of the actual involvement of the formal Russian territory in China's economy?

Among the first steps to create a common economic space of the Far East and Asia Pacific to provide a gradual easing of restrictions on the free movement of capital, services, technology and labor, integration of energy and transportation systems. The implementation of these and other measures will help in a few decades in the region is to form a new economic system, organically included in the international division of labor based on the relatively free distribution of resources between the Far East and neighboring countries. This will contribute to a more active and attracting foreign investment to the region as a whole.

The study of the integration process in the light of globalization requires developing the concept of dialogue among civilizations as an adequate response to the global challenges (ethnic religious, geopolitical, environmental, and cultural). The specifics of the vast region, which includes primarily cultural and civilization diversity and development methods, allows to work here a kind of model of a comprehensive strategy to maintain harmony among civilizations in the world. For us it is extremely useful to see the ‘Asian face’ of globalization, carefully study the phenomenon of soft entry into the global world of Japan and China, which for centuries maintained a policy of self-isolation from the rest of the world. The Russian leadership is desirable to distance them from the primitive Euro centrism, leading mankind to the unification of all spheres of society and the establishment of a unipolar world. Orientation is on the eastern political traditions can save the world

from environmental and moral catastrophes, would help Russia quickly restore its geopolitical code and returns the status of a great power. Obviously, in the Asia-Pacific region has created a completely new alternative model of interaction between civilizations, based on cultural and historical traditions. Asia shows high resistance to various kinds of crises, confidently course of gradual economic modernization while maintaining social and political stability as an essential condition of national existence. Asian countries have paid special attention to safety, believing that the concerted efforts in their decision not to undermine their sovereignty.

At the present, Russia has been a surge of the interest in the development of the regional strategies. In a sense, resuscitated technology of the centralized state planning and management, developed and tested in the USSR. Currently being developed by the regional medium-term development strategy (the most 'daring' to 2030) are generalized schemes of the territorial development, although the detail of the modern techno-economic elaborations markedly inferior planning document 1970–1980's. In the development of regional strategies observed inertia of Soviet planned approach. This explains the fact that the governing documents remain in the sectoral approach, and the most poorly designed units are territorial strategic documents. Even a cursory analysis of the proposals in the far eastern Russian regions of promising territorial macroeconomic structure shows that define the medium term remain points of growth started in the Soviet era.

The Republic of Sakha (Yakutia) – is the Russian leader in a planned mega-projects on its territory as to their amount and on the investment. The largest region of Russia turns into a kind of playground ambitious geo-economic and geopolitical strategies of the Russian leadership. Republic was one of the first subjects of the Far East, which has developed a long-term development of the document – a comprehensive scheme of development of productive forces, Transport and Energy of the Republic of Sakha (Yakutia) to 2020.

According to this document, it is assumed, first, to create the conditions for a stable operation of the basic industries: mining of diamonds, gold, tin, coal, natural gas, diamond cutting and jewelery industry, wood processing and the production of agricultural products and, secondly, on the basis of a number of large-scale the project is planned to create a new sub-sector of mining and energy sector: oil production and refining, coal chemistry, mining of iron ore and metallurgical production, gas processing and gas chemistry, uranium mining, and, third, the implementation of the projects involves the rapid development of transport and energy infrastructure.

The main condition for the implementation of these projects and a substantial increase in the rate of the economic growth is the active use of any and all instruments of public-private partnership with co-financing from the federal budget.

Total investments only on major projects is estimated at 2.5 trillion, most of which should be held by private investors – 1.9 trillion rubles (76 %), the cost of the budget of the Republic of Sakha (Yakutia) – 55 billion, the federal budget based on the Investment Fund of the Russian Federation – 548 billion [1].

Megaprojects of Yakutia have a pronounced effect of interregional and functionally related to the implementation of major investment projects in the neighboring territories of Krasnoyarsk, Khabarovsk and Primorsky Krai, Irkutsk and Amur regions. The results of the implementation of the investment projects will give impetus to the development of infrastructure as well as in the development of mineral resources in these regions. Great social effect of the development of gas fields of Eastern Russia will gasification of settlements of Yakutia, Amur region, Primorsky, Khabarovsk Territory and the Jewish Autonomous Region. Would develop oil refining and petrochemical production in Primorye, Khabarovsk Krai and the Republic of Sakha (Yakutia). Development of large deposits and investment projects will promote development of areas adjacent to the railway lines. Large-scale construction of railways and roads will create a robust ground communication with the far eastern parts of Russia, will promote the development of ports of Primorye Territory.

Characteristically, that the Russian public opinion clearly supports all the initiatives of the federal center and the republic for the development of the region (88 %), but above all as a raw material in the region. 33 % of the respondents believe, that the priority development of Yakutia is the extraction of the natural resources and their sale to maximize profits. Opposing them about a quarter (24 %) of respondents who believe that the country could become a testing ground for the development of high technology. Around one in six (18 %) believe that there is nothing more important than the people in the country to ensure adequate conditions of life. And 14 % believe the priority infrastructure – transport and communications. According to the Russians, Saha should continue to deliver the diamonds to the world market (49 %), the extraction of gold (42 %) and to adjust the supply of oil and gas (38 %) [2].

Undoubtedly, the major changes coming in the life of the Yakut society associated with the implementation of mega-projects. Some of them already are gaining rapid momentum. This is especially true of migration. Today we can observe significant growth of other nationalities are not specific to the region. And this is happening against the background of the outflow of the Russian population and the imminent decline in fertility on the basis of ‘syndrome collapse of the USSR’.

Add to this monstrous income differentiation on industrial and agricultural ulus and elevated levels of unemployment compared with other regions of the Russian Federation, the prevailing ethnic and political reality can cause bursts of protest. However, the 'first signs' were the events in September 2007 in the capital of South Yakutia Neryungri essentially provoked illiterate management Transneft for laying a pipeline ESPO yuzhnoyakutsky region. Demonstrative importation of cheap labor from China and escalation 'in shifts' by orgnabora from the central regions of Russia have caused great dissatisfaction of the local population, which is already suffering from the syndrome of permanent unemployment. Unfortunately, the current volatile situation benefited members of the regional cell DPNI, managed by distributing provocative leaflets to organize a series of unlawful acts against attracted from outside the labor force. Happened events have demonstrated that domestic xenophobia, have long since become a problem for the Russian cities, in the country seriously considered and not considered. Thus, taking place in the South Yakutsk region in the socio-economic processes have a significant potential for conflict that emerged not only because of the global crisis and the depletion of the previous stage of the industrial development, but 'thanks' to the low efficiency of management decisions of the regional power and low social responsibility.

Social cataclysms occurring completely random. The fact that the development of the regional and corporate strategies is determining sectoral approach. Competitive strategic plan can be developed only in a multilateral and constructive dialogue between business, government and society. Today there is little doubt of the need for public involvement in the development, implementation and monitoring of the strategic project. Strategic plan ceases to be purely administrative document. It is rather a social contract agreement, according to which the government, enterprises and public organizations take on certain obligations. Its design and implement all the contributors to the development of the territory, with the interests and involvement of various state and non-state actors. The ideology of the social responsibility is rooted in the concept of the sustainable development, allow you to build a relationship between the government, business and society, which is based on the return of the business share of the rents from natural resources to society, including future generations.

In the fierce competition for the natural resources in the world Yakutia is, perhaps, the lure of pristine nature reserves. Today is a kind of reincarnation of the Soviet model of industrial development, or, more precisely, 'the conquest of the north'. True, the format has been changed in this process: in the old days the country had a much larger territory, natural and human resources. Now the situation is quite the opposite – the country has suffered significant geopolitical and demographic losses and minerals have a tendency to dry out and deeper 'hide' in the earth's crust.

Has not changed, only one – the almost complete disregard of environmental issues and local issues during the development of energy and mineral resources. The territory of the republic is a space with enormous natural resources, and is already experiencing tough expansion of Russian business. This leads, on the one hand, to the 'opening' of the region and creates a vertically integrated companies primarily in the economic sphere, on the other – makes the regional elite to learn complex skills of political bargaining in order to maintain the balance of interests in the region.

Successful implementation of mega-projects will give a new impetus to the improvement of quality of the life and social problems. However, one can avoid the danger of a 'new colonization' during the development of natural resources in Yakutia, where completely ignored the interests of the people and situations, and the area, as before, is doomed to remain a 'raw materials appendage' center. Unfolding 'project of the century' will inevitably attract to the country, tens of thousands of migrant workers, which can turn the region into a hotbed of acute social unrest and ethnic tensions. To avoid the recurrence of 'colonial' approach and provide a civilized start a new phase of large-scale development of the resource potential of the region, there should be full participation of the local population and to attract highly qualified personnel for the implementation of the projects.

The Republic of Sakha (Yakutia) has a special role in the geopolitical space of Russia. It stems primarily from these basic criteria of geopolitics as having immense space (1/5 of the territory of the Russian Federation) and the vast natural resources, access to the sea, close proximity to the future of the center of the world's development. Yakutia is a key region for the implementation of the national interests of Russia in the Asia-Pacific region, a sort of window to Asia. In the future, the Republic of Sakha (Yakutia) could become a base for development of rich mineral resources of the Arctic shelf and the North of Russia. With the loss of access to the Baltic and Black Seas Russia objectively increasing importance adrift in the post-Soviet period of the Northern Sea Route. The shortest, fastest and cheapest way of connecting the Pacific and Atlantic regions, lies just across the Arctic Ocean. This factor cannot be overstated: the Northern Sea Route to halve road from Europe to Japan and China, besides it is 1.6 times cheaper than other routes. Russian North, stretching from Finland to Alaska, is the foundation of a potential geopolitical reconstruction. However, Russia is experiencing excessive momentum in the development of the northern territories.

Undeveloped oil and gas reserves in the Arctic in recent years have become an occasion for the political statements of a number of the leaders from the USA, Norway, Denmark, Canada and

Russia. Unfolding struggle is not accidental – is in a short time the UN Special Commission must begin to consider the applications of the coastal states and define the outer boundaries of the continental shelf, which can lay claim to every country that has ratified the UN Convention on the Law of the Sea in 1982 the summer of 2008, the Security Council of Russia approved the Basics state policy in the Arctic, based on the results obtained in the course of the several research expeditions. In the near future, Russia plans to issue limits of its continental shelf in the Arctic, which has strategic importance for the country. The fact that the area of the Russian Arctic continental shelf beyond the 200-mile economic zone may be about 1.2 million square km. According to the experts, are concentrated between 83 and 110 billion tons of hydrocarbons in oil equivalent (16 billion tons of oil and over 82 trillion cubic meters of gas). They are distributed in 16 major offshore oil and gas provinces and basins. Most of these resources (about 66.5 %) are in the northern seas: the Barents, Pechora and Kara [3]. Exploration in the Arctic ice will inevitably face technical difficulties, which will allow only by creating a powerful infrastructure continental base. In Yakutia for this role the best conditions. The total length of the sea coastline of the region is more than 4.5 thousand square km – that's 10 % of the coast of the Arctic Ocean. In the coastal zone of the republic only proven mineral reserves estimated at 700 billion dollars. There are two sea ports (Tiksi and Green Cape) serving Northern Sea Route. Now the ports are working 90 days a year, provide the delivery of goods to the villages located on the banks of rivers Olenyok, Kolyma, Indigirka and John, as well as the New Siberian Islands. True, there are attempts to establish of the export supplies of oil and coal from deposits in the South Yakutia. However, for the offshore and maintenance of the new economy of the whole of Yakutia in the future maritime infrastructure clearly requires a radical renovation and expansion. It is possible that the growth of proved reserves and increasing oil and gas in the Arctic shelf will require a pipeline to connect to the Eastern Siberia-Pacific Ocean (ESPO). Not excluded to the ESPO oil pipeline from the oil and gas provinces located in the north-west of the country. Expediency ‘march north’ will increasingly grow as the depletion of conventional sources of raw materials and the increased cost of its production in Yakutia and in the whole of Russia. In addition, the development of the north of the republic and the Arctic shelf is not only economic, but also a fundamental geopolitical significance, which establish the borders of Russia and strengthens its role in the eastern Arctic, and in the whole region of Siberia and the Far East. Time-to-shelf is now called, of course, too early. However, almost all the government-Russia transport projects in Yakutia (the radical modernization of the existing support of transport, such as river and sea fleet, creating port infrastructure, road and rail, necessary for the development of continental wealth Yakutia) are both large-scale preparation for entering the High North

and the Arctic shelf. As a result of their implementation of Yakutia peripheral, marginal region must be transformed into a hub cross-border region, the base for the Arctic shelf.

Russian's geopolitical influence in the world will be largely determined by the real capacity of the geo-economic potential of the eastern territories and the creation of favorable conditions for the development of cross-border cooperation. The Republic of Sakha (Yakutia) is able to play in the twenty-first in the geo-strategic scenarios key role. The 'reset' geo strategy eastern Russia means a fundamental change in the investment, migration, ethno and customs policies to create a favorable climate for the development of the region. Selecting the wrong regional development strategy, or lack thereof - is a serious threat to the national security.

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# SOCIOLOGICAL SCIENCES

## Opening of the second Year of the Sociology in Russia

Last year 2012 to Russian sociology marked an important event: in Ufa held another IV All-Russian Sociological Congress 'Science and Society: Global Challenges and Regional Development'. The Congress was attended by a representative delegation of professors, graduate students, and students of the Arkhangelsk region. In the past in the days of the Congress VIII Congress DFB decided to hold the next V All-Russian Congress of Sociology in Yekaterinburg in 2016.

With the approval of the delegates supported the initiative of the ROS announces upcoming 2013 second year sociology in Russia, as this year the 55th anniversary of the Soviet Sociological Association / Russian Society of Sociologists and the 45th anniversary of the Institute of Sociology. Official opening of the second year of sociology in Russia proclaimed President of the Russian Doctor of Philosophy, Professor V. A. Mansurov at a regular meeting of the Presidium of the ROS, which was held on 28 February 2013.

Currently, the Russian Society of Sociologists has branches in 70 regions. In view of the regional sociology are the most important issues of the contemporary world, national and regional issues.

The preparation of the specialists in the sociology of higher education. Reform of the government, state and municipal government, the development of single-industry towns are reflected in the theses on sociology, protected teachers of NArFU recently in the dissertation council D 212.008.08 in the Northern (Arctic) Federal University named after M. V. University. Complete training of masters in sociology and sociology of management policy. Methodological, textbooks and monographs for the students of sociology, the humanities and the social and economic fields.

From the young scientists and students, the science and practice are waiting outlook studies of the Arctic macro-audit of government, communications with the public, to minimize risks in the system of interaction between different social actors.

The materials of the Congress of the ROS, the conferences are available on the webpage ROS: http://www.ssa-rss.ru.

The head of the Arkhangelsk department of the Russian Society of the sociologists
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UDK 332.14+336.53

# PRIVATE EXPEDENTIRES ON SOCIAL SERVICES IN THE NORTHERN REGIONS OF RUSSIA

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**Abstract.** The article describes the main features and trends in private financing of the social expenditures in the Russian North. The estimation of the perspectives for the change in the structure of financing

**Keywords:** *health policy, culture, education, paid services, weather, prediction,region, North, social policy, social spending, finance*

## *Introduction*

An essential element of the modern human being is social systems – education, health, social protection, culture. Familiar is their apparent free character, however the quality of the highest requirements. Over two decades of market reforms, most people have realized that the state cannot and should not bear the sole burden of responsibility for the well-being of every person must be concerned that private participation in the formation of required social benefits and, therefore, full or partial payment of their value from their own funds.

Recognizing the positive consequences of the changes have taken place – the growth of the quality of services, increase cost efficiency, greater development of forms and types of services and the level of service can not be allowed to over-commercialization of the social sphere, the loss of important achievements as universal education, the minimum necessary health care, and centralized security augmentation of cultural heritage. At present, there are still ongoing search for the best model of financing social spending, it turns out the possibility and desirability of a broader engagement private sources for modernizing the social sphere.

Equally important questions have raised in the Russian Arctic and the northern parts of the country due to such features of their socio-economic development, as increased natural-climatic load on the human body, a significant rise in the cost of social services, pronounced differential dissociation of income and a strong dependence of the latter on raw material export conditions, often more intense demographic situation. Therefore, it is topical to parse the private financing of the social expenditures in the northern regions of Russia in order to clarify their main characteristics and trends and future perspectives for the forecasting changes.

### *Methodological Basement of the research*

The main source of information about the object of the research is the official statistics on the provision of various types of paid services: education, health (includes medical, spa and gym facilities and sports) and culture. Data on the volume of paid services in the field of the social protection and social services in the open statistics is the only part of the services rendered by senior citizens and the disabled, and only since 2011, so this category of services, the study was not considered.

Paid services provided in the statistics on the regional level and in two dimensions, in absolute terms and as a volume index. The first indicator reflects the amount of money paid by the consumer or the organization in which he works for the services rendered to him or his family services. Service providers are the only residents of the Russian economy, and consumers - as the citizens of the region, as well as citizens of other countries. Figure includes an assessment of hidden and informal activities in the market [2].

In connection with the use of this indicator is subject to certain technical difficulties. First, as noted, it includes services rendered by non-residents, so it cannot be correlated quite correct, for example, income and expenditure, or GRP. However, given the known fraction of residents in the consumption of services, as well as a counter misreporting in connection with a partial acquisition Russians services abroad, this inaccuracy possible neglect.

Second, this figure includes some of the costs of utilities for the social services, which complicates a comprehensive assessment of the costs of legal persons in the field. In this regard, and given the inaccessibility and odd bits of information on the costs of enterprises, this paper will limit the analysis to only the paid services.

Thirdly, we have to keep an eye on the fact that the volume of paid services, of course, is fixed at the place of delivery, and therefore, the estimate on the regional level will be distorted to the cases where a person receives income in one region, and uses the services of another, for example, when a child in high school or from out of town for treatment or spa and resort in the southern regions of the country. This problem appears to be an insoluble, and therefore there is inaccuracy will be ignored. When comparing private spending with budget error will be partly offset by the fact that the budget services in almost the same extent as private costs, are transregional in nature, especially in the higher education and health care.

### *Education*

The total volume of paid services in the field of education for the 2000–2011 years. increased in the North, in nominal terms of 9.2 times to 19.8 billion rubles in Russia – by 8.4 times,

and 347.3 billion rubles, respectively. Volume index confirms the rapid growth of the social services in the North relative to the national average: 2.5 vs 2.1 times. Most rapidly in the period of paid educational services grew in rich resource-exporting regions of the North: in Yakutia – in 3,3 times, in the Yamal-Nenets Autonomous District – 2.9 times, in the Magadan and Sakhalin regions – 2.7 times, in the Komi Republic – 2.5 times, in the Khanty-Mansi Autonomous District – 2.4 times (table 1). In other regions, the growth rate of spending was below average. The rapid growth in this period, most likely due to the sharp increase in popularity of higher education and the emergence of the economic opportunities for most families to pay for the services for their children [1]. On a per capita amount of paid education services in the northern regions of slightly higher than the national average: in 2011 it was 2.6 and 2.4 thousand, respectively, and in 2000 it was below 5 %. Typically, even in oil-producing regions it has no significant deviation in a big way, only in Sakhalin and Yakutia can state a significant increase over the average per capita expenditure – in 1,3-1,8 times (see table 1).

*Table1*

***Dynamics of the paid services in the Northern regions in the Russia in 2000–2011***[1]

| Regions | Volume index, % | The volume of sevices per capita, at current prices, thousand rubles | | | | The share of services in GRP, % | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 2000 | 2004 | 2008 | 2011 | 2000 | 2004 | 2008 | 2010 |
| Russia, totally | 210,8 | 0,28 | 0,85 | 2,03 | 2,43 | 0,72 | 0,87 | 0,85 | 0,87 |
| Northern regions, totally | 245,4 | 0,27 | 0,96 | 2,03 | 2,60 | 0,25 | 0,37 | 0,36 | 0,40 |
| including: | | | | | | | | | |
| Republic Karelia | 206,9 | 0,19 | 0,66 | 1,40 | 2,01 | 0,48 | 0,87 | 0,84 | 0,91 |
| Republic Komi | 249,2 | 0,17 | 0,80 | 1,56 | 2,15 | 0,30 | 0,61 | 0,52 | 0,49 |
| Arkhangelsk region | 228,3 | 0,20 | 0,72 | 1,54 | 1,83 | 0,53 | 0,88 | 0,95 | 1,09 |
| Nenezkiy AO | 181,2 | 0,12 | 0,27 | 0,91 | 1,17 | 0,04 | 0,03 | 0,04 | 0,03 |
| Murmansk region | 162,9 | 0,31 | 1,07 | 2,32 | 2,79 | 0,52 | 0,75 | 0,92 | 0,93 |
| Hanta-Mansiyskiy AO | 242,7 | 0,37 | 1,17 | 2,20 | 2,58 | 0,12 | 0,18 | 0,17 | 0,21 |
| Yamalo Nenezkiy AO | 293,9 | 0,17 | 0,94 | 1,81 | 2,30 | 0,07 | 0,14 | 0,14 | 0,17 |
| Yakutia Republic | 325,0 | 0,35 | 1,22 | 2,48 | 3,31 | 0,41 | 0,75 | 0,76 | 0,74 |
| Kamchatskiy Region | 141,6 | 0,46 | 1,10 | 2,40 | 2,95 | 0,93 | 1,10 | 1,06 | 0,96 |
| Magadanskiy region | 272,7 | 0,29 | 1,23 | 2,23 | 3,02 | 0,44 | 0,88 | 0,87 | 0,79 |
| Sakhalinsky region | 268,0 | 0,24 | 1,03 | 3,20 | 4,72 | 0,39 | 0,60 | 0,50 | 0,45 |
| Chykotskiy AO | 178,0 | 0,09 | 0,25 | 0,60 | 0,83 | 0,14 | 0,10 | 0,10 | 0,10 |

For the comparison, at the same time, per capita budget expenditure on education in the North have been above the national average by almost 2 times. Discrepancy appears to be due to the fact that most of the paid services of education have a higher education and a significant

[1] Calculated according to the author of the interagency statistical information system. URL: http://fedstat.ru/indicator/data.do.

amount of services is outside the northern regions in connection with the training of children in metropolitan universities. The cost is low in regions of core focused on providing pre-school and secondary education, and in these areas the northern appreciation expressed most strongly in connection with a considerable share of utilities in the cost structure and finding the many educational institutions in remote outback areas.

As a percentage of the gross regional product for the period recorded a significant increase in private spending: in the North for 2000–2010 – from 0.25 to 0.4 %, in Russia – from 0.72 to 0.87 % (see table 1). These figures reflect explained above trend growth in private spending on education, but it is noteworthy that even in the face of this growth relationship with government funding does not move in a big way, which indicates a harmonious building of public spending. The relatively low share in GRP private expenditure on education in the North compared to the nationwide primarily due to a much higher level of the per capita gross regional product, especially in oil-producing regions. More rapid increase in the in the North relative to the average for Russia confirms already noted rapid increase in the volume of paid services.

In relation to the government funding is now not observed any significant increase in the share of paid services. If in 2000-2004 this figure rises to the North from 7.4 to 11.8 %, in Russia – from 24 to 25.9 %, in recent years it has stabilized, and after 2009 it is celebrated even decline – in the northern region with 11.4 to 9.5 % in Russia as a whole – from 23 to 20.1 %, due to the advanced increase budgetary allocations in education (figure 1).

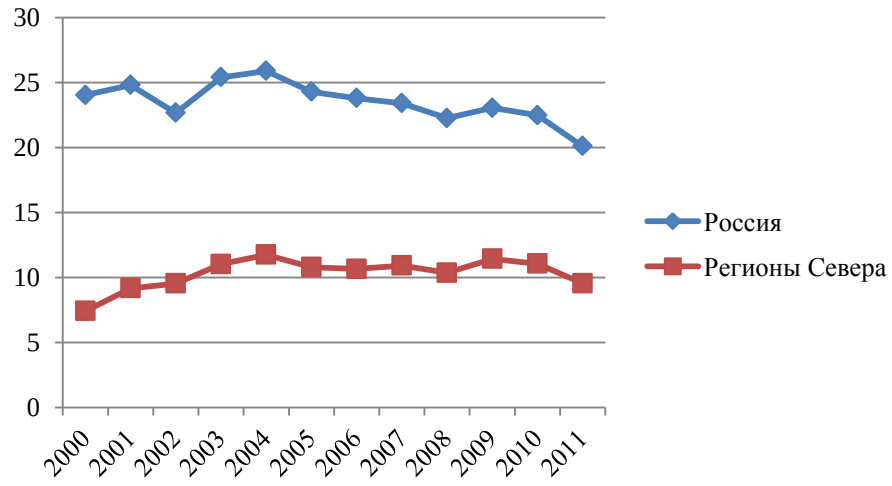


Fig. 1. The ratio of private expenditure on education to the budget in the northern regions of Russia for 2000–2011 years, %

Thus, there is no reason to talk about a substantial increase in the importance of private investment in the financing of the education system in the country.

### *Public Health*

Paid services in the health sector in the northern regions of Russia in 2011 amounted to 22.5 billion rubles. In per capita terms their value reached nearly three thousand. As in the case of services of education, during the period in the North was accelerated relative to the average development of the private health sector, with the result that instead of the previous lag capita amount of private spending was higher than the national average. This is normal and indicates the alignment of imbalances in the regional development.

In 2000, the average per capita amount of paid medical services in non-resource areas was a quarter below average, in 2011 it exceeded the latter by 32 % (table 2). From this we can judge as the rapid growth in living standards of the northern regions and the development of a service infrastructure in the outlying areas.

*Table 2*

***The Dynamics of the paid services in the northern regions of Russia in 2000–2011 гг.***[2]

| Regions | Volume index, % | The volume of services per capita, at current prices, thousand rubles | | | | The share of services in GRP, % | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 2000 | 2004 | 2008 | 2011 | 2000 | 2004 | 2008 | 2010 |
| Russia, totally | 180,1 | 0,32 | 0,88 | 1,97 | 2,72 | 0,81 | 0,91 | 0,82 | 0,91 |
| Northern regions, totally | 266,2 | 0,26 | 0,98 | 2,29 | 2,96 | 0,24 | 0,37 | 0,41 | 0,42 |
| including: | | | | | | | | | |
| Republic Karelia | 251,7 | 0,22 | 0,71 | 1,81 | 3,01 | 0,56 | 0,93 | 1,08 | 1,26 |
| Republic Komi | 213,3 | 0,24 | 1,18 | 2,30 | 3,07 | 0,42 | 0,90 | 0,76 | 0,75 |
| Arkhangelsk region | 254,3 | 0,16 | 0,84 | 2,01 | 3,03 | 0,44 | 1,03 | 1,24 | 1,51 |
| Nenezkiy AO | 567,1 | 0,07 | 0,23 | 1,43 | 2,39 | 0,02 | 0,02 | 0,07 | 0,06 |
| Murmansk region | 126,6 | 0,24 | 0,92 | 2,40 | 3,09 | 0,41 | 0,64 | 0,95 | 1,05 |
| Hanta-Mansiyskiy AO | 287,2 | 0,43 | 1,17 | 2,27 | 2,57 | 0,15 | 0,18 | 0,18 | 0,18 |
| Yamalo Nenezkiy AO | 216,2 | 0,26 | 0,84 | 1,76 | 2,01 | 0,11 | 0,12 | 0,13 | 0,12 |
| Yakutia Republic | 332,5 | 0,17 | 0,62 | 1,36 | 1,60 | 0,20 | 0,38 | 0,42 | 0,36 |
| Kamchatskiy Region | 97,9 | 0,43 | 0,72 | 1,46 | 2,52 | 0,88 | 0,73 | 0,65 | 0,77 |
| Magadanskiy region | 176,0 | 0,25 | 0,89 | 1,72 | 2,68 | 0,38 | 0,64 | 0,67 | 0,63 |
| Sakhalinsky region | 441,3 | 0,31 | 1,87 | 6,67 | 7,72 | 0,51 | 1,09 | 1,03 | 0,72 |
| Chykotskiy AO | 406,1 | 0,14 | 0,80 | 1,34 | 1,37 | 0,21 | 0,33 | 0,22 | 0,17 |

The share of the health services in the total amount of health care services has increased over the study period in the North with 70 to 81 %, in Russia – from 59 to 74 %, the specific weight of the same services to physical education and sports and spa accordingly reduced. A higher proportion of health services in the North due to naturally lower importance here of spa services (10 versus 17 %), while the services of Sport proportion saved (about 9 %).

[2] Calculated according to the author of the interagency statistical information system. URL: http://fedstat.ru/indicator/data.do.

The physical volume of paid services in the Nordic region for 2001–2011 years increased 2.7 times, most notably in the Nenets Autonomous Area – by 5.6 times, in the Sakhalin area – 4.6 times, in Yakutia – 3.2 times, in the Khanty-Mansi Autonomous District - 3 times in the Arkhangelsk area – 2.7 times. On average, the growth of the country during this period was much smaller and was about 2 times.

An even higher dynamics observed in the paid services of Sport: on average in the North of the physical volume increased in 12 years by 3.5 times, while in Russia only 2 times. The highest rates were recorded in Karelia – 11.5 times, in the Nenets Autonomous District and Yakutia – 6.4 times, in the Sakhalin area – 4.5 times, in the Yamal-Nenets Autonomous District – 4 times in the Khanty-Mansi Autonomous District - 3.5 times.

The volume of health and health services also increased faster rate – 1.4 times (in Russia decreased by 20 %), including the most important in the Magadan region – 6,5 times, in Karelia – 2.3 times, in the Arkhangelsk region – by 1.5 times.

As a percentage of budgets funding dynamics of the paid health services was mixed. In the northern region there is much smaller proportion than the national average, due to sharply pronounced increase in per capita expenditures of the budget compared to private. Capita budget expenditures on health care here, as in education, more than twice the national average.

But if the whole country the ratio of private spending on education to state fluctuated for 2000–2011 years. in the range of 20–25 %, the regions of the North, it first increased from 7 to 15 %, due to, firstly, the faster growth of private spending amid all-Russian speakers, and secondly, a significant difference in the level of anti-aliasing of budget financing of the North and the rest of Russia, from 2.9 to 2 times[3] (fig. 2).

However, in 2010-2011 due to the significantly increased public expenditure in the health sector in the whole country and its northern territories again decrease the proportion of private spending. Therefore, to speak of the exhaustion of the last building in financing health care is inappropriate.

The share of the private expenditure on health in GRP for 2000–2011 years increased in the Northern regions from 0.24 to 0.42 %, in Russia – from 0.81 to 0.91 % (see table 2). Smaller proportion in the first case due to the corresponding values in the resource regions with extremely high values of per capita GRP in other regions it is close to the average, or even exceeds it. The growth rate is associated with rapid increase in disposable income and positively assessed.

[3] This trend is more detail see Styrov M. Trends financial support of the social sphere of the northern regions of Russia // Economic and social changes: facts, trends and outlook. № 2 (20). 2012. P. 140–153.


Fig. 2. The ratio of private health expenditure of the budget in the northern regions of Russia for 2000–2011 years, %

### *Culture*

Paid services in the field of culture – the lowest specific weight component in the private financing of social systems, they account for only about 10 % of the total. In per capita terms, these services have achieved in 2011, by region of the North – 0.46 thousand rubles, Russia – 0.63 rubles. Thus, in the North of the costs in terms of money per capita were about a quarter below average, although government funding here was higher by 2.1 times. Thus, in contrast to other social systems discussed above, during the study period there were any significant changes in this ratio. However, surprisingly, in real terms, the services of cultural institutions in the North has increased in 12 years, almost half, and in the whole country, only 36 % (table 3).

This contradiction, in all probability, may be due to a significant reduction in the cost of these services in the northern regions, for example in connection with their partial government subsidies. This assumption is confirmed by the fact that most of the identified growth came in the Khanty-Mansi and Yamal-Nenets Autonomous District, which received very serious attention to the preservation of local cultures of indigenous peoples and the bet on it as an important element in the development of the region. Relatively high indices of services culture can also be seen in Yakutia (2.4 times), the Kamchatka region (1.8 times) and the Arkhangelsk region (1.6 times).

The amount of private investment in culture in the northern regions was 13 % of the budget, and in comparison with 2000, this share increased by 5 %. On average, the ratio is much higher and reaches 38 %, which is associated with a lower per capita funding of the culture of the budgets (see figure 3).

*Table 3*

***Dynamics of the paid services of culture in the northern regions of Russia in 2000–2011 г.***[4]

| Regions | Volume index, % | The volume of services per capita, at current prices, thousand rubles | | | | The share of services in GRP, % | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 2000 | 2004 | 2008 | 2011 | 2000 | 2004 | 2008 | 2010 |
| Russia, totally | 135,7 | 0,07 | 0,31 | 0,47 | 0,63 | 0,17 | 0,32 | 0,20 | 0,22 |
| Northern regions, totally | 193,0 | 0,05 | 0,17 | 0,29 | 0,46 | 0,05 | 0,07 | 0,05 | 0,06 |
| including: | | | | | | | | | |
| Republic Karelia | 69,8 | 0,06 | 0,19 | 0,27 | 0,42 | 0,15 | 0,25 | 0,16 | 0,19 |
| Republic Komi | 83,7 | 0,03 | 0,13 | 0,21 | 0,35 | 0,05 | 0,10 | 0,07 | 0,07 |
| Arkhangelsk region | 163,1 | 0,04 | 0,12 | 0,27 | 0,44 | 0,12 | 0,14 | 0,17 | 0,25 |
| Nenezkiy AO | 33,2 | 0,03 | 0,09 | 0,45 | 0,22 | 0,01 | 0,01 | 0,02 | 0,00 |
| Murmansk region | 102,5 | 0,05 | 0,19 | 0,36 | 0,40 | 0,08 | 0,14 | 0,14 | 0,13 |
| Hanta-Mansiyskiy AO | 294,8 | 0,09 | 0,17 | 0,25 | 0,43 | 0,03 | 0,03 | 0,02 | 0,02 |
| Yamalo Nenezkiy AO | 485,0 | 0,07 | 0,25 | 0,23 | 0,35 | 0,03 | 0,04 | 0,02 | 0,02 |
| Yakutia Republic | 241,9 | 0,03 | 0,18 | 0,36 | 0,60 | 0,04 | 0,11 | 0,11 | 0,12 |
| Kamchatskiy Region | 175,6 | 0,05 | 0,11 | 0,13 | 0,84 | 0,09 | 0,11 | 0,06 | 0,23 |
| Magadanskiy region | 129,5 | 0,04 | 0,19 | 0,34 | 0,63 | 0,07 | 0,13 | 0,13 | 0,15 |
| Sakhalinsky region | 113,4 | 0,04 | 0,31 | 0,57 | 0,61 | 0,07 | 0,18 | 0,09 | 0,06 |
| Chykotskiy AO | 122,8 | 0,02 | 0,12 | 0,28 | 0,37 | 0,03 | 0,05 | 0,05 | 0,04 |

We note an interesting trend: up to 2004 in Russia there is a very strong increase in the proportion of private and public spending on culture - from 35 to 64%, the reason why it was obviously drastically insufficient central funding of this sphere (as a residual). Beginning in 2005, government funding of culture was significantly increased in relation to the realization of the importance of this sector in the development of society, leading to equalization proportion of public and private spending.

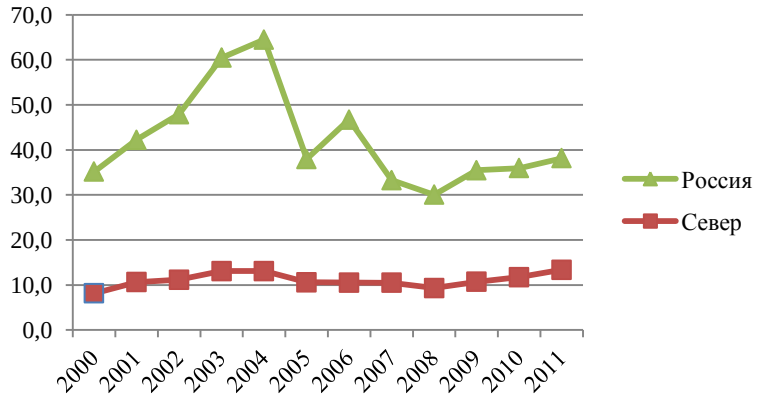


Fig. 3. The ratio of private spending in the cultural sphere of the budget in the northern regions of Russia for 2000–2011 years, %

[4] Calculated according to the author of the interagency statistical information system. URL: http://fedstat.ru/indicator/data.do.

Now again there is a moderate increase in the importance of paid services, but this is less to do with the 'failure' of public support, and to the citizens to pay more attention to their spiritual and moral state.

### *Conclusions*

Thus, the main features and trends in private financing of the social systems of the northern regions of Russia for the last decade are:

- rapid increase in the volume of services, significantly ahead of the average Russian: Health - 2.7 times (in Russia – 1.8 times), education – in 2.5 times (in Russia – 2.1 times), culture – 1.9 times (in Russia – 1.4 times);
- rapid growth of per capita education and health services in terms of value, which allowed the northern regions lagging partly align its position from a national average of indicators;
- much less pronounced increase in per capita in the north of paid social services than government funding by only 7–8 %, and in the cultural sector – 25 % lower compared to more than twice higher budget spending, reflecting the less developed service infrastructure, on greater state role in the livelihood of the people in the North, as well as a significant difference between the places of income and use of services;
- the preservation of the basic proportions of private and public funding of social systems in education – about 10 % in the North and 25 % in Russia for some growth in the culture of extra-budgetary funding to 10 and 40 % respectively. The relatively low share of private funding cited persistent state's leading role in the functioning of social systems and at the same time showing some improvements last reserve from extra budgetary sources.

## Literature

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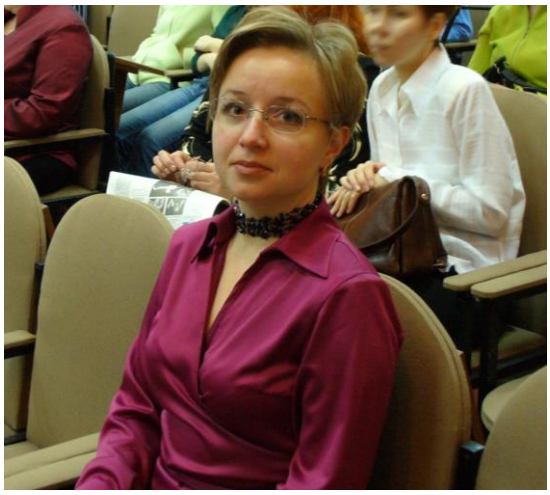
# FAMILY VALUES AND SOCIAL EDUCATION OF YOUNG PARENTS IN THE MODERN SOCIETY



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**Abstract.** The article raises the question of the transformation of family values in the society at risk. The approaches to the understanding of family values. Focused on the field of parenting as the most promising area of family and society. Formulated the need for the social education of the family as a mechanism for the internal reorientation of values of the modern society

**Keywords:** *family values, a young family, parenting, social, education and social development, aksicreation*

The research works of the social provisions of the modern Russian family show protracted crises (V. I. Antonov, T. S. Dobrenkov, T. S. Zubkova, L. V. Kartseva, N. V. Timoshina, etc.). This is fully characteristic of the modern young families experiencing significant difficulties caused primarily specific social functioning and the instability of modern society, some researchers as a risk society (E. Giddens, W. Beck, J. Rittser, N. Luhmann). These authoritative comprehensive interdisciplinary research on the state and trends of the Russian youth in general point to an adverse change in the quality of the young generation, deepening generation gap, talk about finding the country's stage of demographic crisis [14]. The question is raised about the loss of family values among the youth, social strains and threats for a young family (Y. Zubok, V. I. Chuprov, E. A. Bocsa, E. M. Chernyak, etc.).

In general, the research questions of family values are reflected in psychology (L. S. Vygotsky, N. D. Dobrynin, V. V. Ilyin, I. S. Kon, K. K. Platonov, D. N. Uznadze, etc .) and education (S. P. Akutina, V. I. Perevedentsev, V. A. Titarenko, etc.).

The scientific analysis of the phenomenon of the family and family values has been developed in the several research paradigms. From the point of view of the consideration of changes in family relations problem of family values is central to the crisis paradigm (A.I.Antonov, V.A. Borisov et al.) In her state of the family as a social institution and the stability of the society as a whole due to the position of family and extra-family (individualistic) values in shared values. Representatives of the crisis paradigm of the main values of marriage and family readiness spouses called to fulfill family roles in key areas of life. Case study on the functioning of families in Russia, leading researchers to conclude that the family suffers a crisis of values, and it needs a radical reorientation of value systems. In terms of the paradigm of modernization (A. G. Vishnevsky, S. I. Golod, M. S. Matskovsky, etc.), the transformation in family and marital relations are considered as evolutionary changes in the family and family values towards egalitarianism and democratization at the Institute of Marriage and Family.

There is a need to classify family values on the objects that make up the subject of evaluation. Traditionally they are usually divided by elements of communication within the family and the functions performed by the family as an institution. These two classifications agree on some points, but each of them allows us to consider some types that are not considered different. In the first case, subdivided into three groups of family values and related to a marriage, the values associated with parenting, values associated with kinship. A second version of the classification of family values can be represented by a family running a social function. In reproductive function - the value of children as a function of socialization – the value of participation by both parents and the older generation in the education of children in the existential function - the value of family communication, the value of family support, the value of health, well-being and maintain longevity of family members, the economic function – the value of family business, family consumption.

There are, in our opinion, debate, but very interesting classification. For example, in S. P. Akutinoy value is considered to have spiritual and moral context of the national culture. There are four groups: national cultural self-worth and blood family natural and geographic bases of education of spiritual and moral values in the family, social and national core Russian family and family education, the higher (absolute) moral values of the family. Designated group of family values are divided into generic and specific value [1, p. 13].

Attractive to our point of view expressed by BB Khubiev whereby education and educational functions of the family becomes a priority in moving to a new type of society. Education, self-education, the ability to apply knowledge to solve practical problems materialize in achieving self-sufficiency and family reproduction of human resources [13]. However, in recent studies,

which produce tangible family values, personal and spiritual family values, revealed that 'the spirituality of young people selected as the lowest rank of the group, as opposed to the parents'. And as the value of education is simply not considered or is designated in the context of the prestige of the profession [2].

The complexity of detail in the conceptual apparatus is connected with the fact that, along with family values researchers identify value orientation. For example, L. Savin [8] considers the value orientation of the family in different areas of marriage and family, highlighting: the scope of pre-marital behavior and choice of a marriage partner, relationship, marriage and family relationships, marriage and family roles. The author also examines the social, socio-cultural and ethological values; characterizes the functions of the family, the value of children and reproductive attitudes spouse, separately identifies the family as a social institution, providing an opportunity to implement a set of different values (marriage, parenting, kinship, as well as a social and cultural formation of human values: love compassion, care about people, and so on). It does not separate family values and values, family values is when the system of family relations.

During the considering the family values, this approach seems to us the most appropriate, but consideration of family values and values, you can specify, reviewed the structure of family values in the areas of marriage and family, while highlighting the scope of pre-marital behavior and choice of a marriage partner, the sphere of kinship, parenthood sphere, the sphere marriage and family relations, the sphere of marriage and family roles and marriage. It is based on classification of the functions of the family, designed M. S. Matskovsky [5]. This approach allows, on the one hand, the present value of the family as a system, where the relationship, role and function combine marriage and family started in a unit in the main spheres of the family, on the other – to identify the transformation of the family values in the present stage of the development of the family and marriage different areas of marriage and family.

The scientific interest for the research of the family values and issues of the social education of young family for the authors is the scope of parenting, which includes a system of interrelated events, such as parental feelings, roles, parent-child relationships, attachment to children, parenting style. A special role in this field, among other family values plays kids who are the main indicator of the family in a traditional society [3, p. 175].

We believe that the particular significance in this area of parenting is a risk society is education (social education) as a specific social value. [7] Today, the scientific community says about the mission of social education as a fundamental phenomenon of modern times (V. G. Bocharov, V. I. Zhukov, L. V. Mardahaev, V. N. Yarskaya). According to researchers, it is in the social for-

mation, part of which is the social education; training, ‘the general population’ may reproduce a certain mentality, social and cultural systems of the major principles of the semantic orientations of life and ideals of youth [12, p. 297]. For young people, a family planning and birth, the value of the social development and education (learning the basics of law, psychology, pedagogy, development communication, institutional competence, and so on) in a modern society is becoming extremely unstable current.

To identify the specific value orientations and issues related to social development and education in the family, traditionally living in the Russian North, the Department of Social Work and Social Security NArFU was a series of the studies (total surveyed more than a thousand respondents). In one survey involved 182 families (husband and/or wife), living in the Primorsky district of the Arkhangelsk region. By training the respondents was as follows: 55.5 % of families with special secondary education, 28.6 % – higher education, 15.9 % for typical mixed type of education (the husband has a higher education and specialized secondary wife or vice versa). In the field of parenting priority value are children, their relationship, issues of education. Thus, 82.7 % of respondents do not represent life without children, 33.5 % have a feeling of deep affection for their children. However, in the north, where the children were traditionally value is changing. In our study, 3.4 % for parents, children are a burden (‘interfere with work, personal life’, the parents of their ‘suffering’). The study showed that in matters of family education families are experiencing major difficulties. This is due to several reasons: lack of free time - 70.8 %, lack of uniform standards in education – 21.1 %, non-standard requirements for the child – 17.5 %. Parents recognize that over-employment and lack of psychological and pedagogical knowledge of their age children may lead to negative manifestations of their relationship to the child, and thereby transform the values of the family.

The question ‘how do you evaluate the relations of children to you?’ the Answers were distributed as follows: ‘love’ answered 64.3 % of the parents, ‘very attached’ – 23.4 %, ‘indifferent’ – 2.0 %, ‘aggressive’ – 2.5 %,’suffering’ – 7.8 % of respondents. About the time that the family (parents) pays children's education, common answers were ‘half’ – 37.9 %, ‘three hours’ – 31,3 %. Only 21.4 % of respondents can perform an educational function during the day, while there is a direct dependence of the implementation of parenting Planned Parenthood.

In the field of marriage and family relationships are particularly important issues that concern the family and, therefore, complicate the functioning of the family as a small social group. Among the issues of particular concern: physical problems – 51.4 %, training and education – 45.8 %, the health of family members – 36.3 %, poor quality housing – 24.0 %, and relationships with

children – 22.9 %. We were alerted by the fact that much less important for families is education of parents (of 3.9 %). Moreover, respondents living in rural areas, do not consider 'parental education' problem of the modern family.

Given that in the most general form values have three characteristics: First, they are characterized as both objective and subjective, and secondly, all the things that people seem positive, it makes sense only because of the presence of its antipode, and thirdly, the relationship between opposites is limited to some subjectively determined by the limit beyond which the debate about values makes no sense, considering the family values in the context of social development and education of the family, we focus on the following. Objective component of treatment education as a value is the need of the state and society in the reproduction of a 'complete' human capital, and subjective – the need of parents in the social competence for full family functioning. Antithesis of education, the social competence is an unprecedented scale of ignorance among young people in today's modern parents. A limit beyond which the 'discussion' really lose all meaning, can become the complete destruction of the Russian people.

To address this critical national problem, we propose to consider the role of the Institute of the Social Education of the family (family social education), during which the family can be understood by new parents as a social value. We proceed from the assertion that the social value – a 'significant phenomena and objects of reality in terms of their agreement or disagreement to the needs of individuals, social groups and society as a whole; the socio-cultural preferences of people in relation to various objects and phenomena that can meet the needs of individuals, serve their interests and goals, moral and aesthetic imperatives developed human culture and is a product of social consciousness' [9, p. 183].

Based on the statement of the researchers [8], that the social values in the structure of the individual in the form of the personal values are important regulators of behavior, it can be argued that the numerous instances of deviation related to illegal, inhumane behavior of parents towards their children, showed no mechanisms in the modern society formation of such values, 'regulators'. For example, domestic violence, neglect, sexual exploitation, and the like are, in practice, the social norm.

Certainly, 'postmodern' family value orientations associated with the transition from modern to post-modern, post-industrial society, correlate with the findings of post-industrial and post-modern theories, according to which the nature of the modifications to the pre-industrial society (traditional) to industrial (modern) and the industrial (modern) to post-industrial (post-modern).

At the same time, substantial changes related ‘cultural turn’ (cultural turn) or the so-called ‘paradigm shift’ (L. G. Ionin, G. I. Gerasimov, M. Y. Lotman; G. L. Tulchinsky, M. N. Epshteyn, P. Shtomka, K. Hübner, I. Lakatos, etc.), actualize type of values, which remains intact in any social change is a human value orientation. The complexity and dynamism of the transition sociocultural situation is producing a basis of social interactions at the institutional and ordinary levels, leading to a revision of the established value judgments. As noted O.I Volzhina, ‘in these conditions the value of family culture, which... taken as a matter of course, questioned, as well as the socio-cultural stereotypes of the traditional forms of marriage, parenting, relationship’ [4].

It is appropriate to recall that for a long time there were public stereotypes that ‘interference with the family’ is not valid and must provide the family to solve their problems. However, such a model could work successfully in traditional families, where the uptake of family values occurs naturally, ‘automatically’. Today, these values must be consciously and deliberately create. In the creation of a social pedagogy we associate with the term ‘aksi creative’, which means ‘the process of generation, growing on a person or group of new, or regeneration and decision reconsidered in his personal and individual values of social and other values’ [11, p. 9–10].

P. A. Sorokin believed that stop crises (including the crisis of the family), humanity can not, however, to make the constructive plans for the future of the society, to find the most painless transition from one culture to another, mitigating the devastating affects – the task of the scientist. Sorokin idea that only a global value-internal reorientation of the society can be the guarantor of its stability, it seems to us aksi creative in nature and is for us to some extent, the leadership [10].

The use of the Aksi creative approach for the modern Russian family life, especially the young, in the long term can help resolve the contradictions that exist between the individual and the high social status of the family and the observed destructive tendencies in its development. However, further study of family values and values of the family in the context of place in the modern transformation of Russian society is particularly relevant, as it facilitates a better understanding of the mechanisms of formation of the system of value orientations of society as a whole, including the Russian Arctic.

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# THE STUDENT OF NArFU: VECTOR OF CHANGES

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**Abstract.** The article dedicates to the problems of the sociological support of educational innovation

**Keywords:** *federal university, Arctic, North, sociology of education*

The idea of creating in Archangelsk a single research and education at the university complex and CCGT ASTU were in the air for a long time. Initiative combining leading universities Arkhangelsk owned PSU Rector V. N. Bulatov. In February 2007, the Academic Council of PSU has decided to create in Arkhangelsk scientific and educational innovation university complex named after M. V. Lomonosov. Natural to preserve the Lomonosov University in the name of the future: North Federal National University named after M. V. Lomonosov. It was assumed that the university complex will include PSU, ASTU, Sevmashtuz, Arkhangelsk Pedagogical College, Lomonosov gymnasium and a number of other educational institutions. Creating a new type of university in the North was symbolic for the upcoming 300th anniversary of the birth of Mikhail Lomonosov.

It would seem very informed decision of the Academic Council of the University Pomeranian then faced with the ambitions of the administration and faculty ASTU. In the local press in the name of the future incisive university complex 'lesoped' could guess the claim to a leading role in a possible merger Technical University, which later actually happened.

The objective basis for the future change was a risk in the permanent reforms in the vocational education loses the federal funding and be in a cohort of secondary regional universities. Presidential Decree 'On the federal universities' from May 7, 2008 № 716 initiated the process of establishing the federal universities in Russia. In the end, the old dispute between the 'physicists' and 'lyricists' initiative in the creation of the Federal University of Technology was transferred to the university and its base the Northern (Arctic) Federal University named after M. V. Lomonosov. May 20, 2011 Pomor State University named after M. V. Lomonosov ceased to exist by joining the Northern (Arctic) Federal University.

The main task of the new university as a major research and the education and innovation center – increasing the role of the science, higher and vocational education in the socio-economic

and cultural development of the North and the Arctic for the next decade. While humanities should become a solid foundation of the technical education, and only in this case, you can count on the synergistic effect of combining the two research schools: the humanities and the technical specialists. Unfortunately, it is not sad to say today, the process of humanization of technical education largely took the opposite character – and reduce techno cration. Humanities conducted including the optimization of the structure under the guise of the educational and research activities of the university.

It is no secret that the Ministry of Education initiated reforms in education differently perceived the participants in the educational process, and their authoritarian style of the growth is accompanied by the social tensions and conflicts. For example, large-scale institutional significant social experiments in education (for example, the national project 'Education' initiative 'New School', the closure of rural schools, the establishment of a network of federal universities) are without competent support, based on the so-called 'sociological sense' to educators and university administrators [1].

Genuine anxiety from the scientific community and caused the results of the monitoring guidelines for determining the state universities with evidence of inefficient work conducted in the Ministry of Education in 2012 to reorganize the course, essentially eliminating 'inefficient institutions', according to Sergei Neklyudova paves the way 'for the final defeat of the national higher education – under the pretext of removing him from the crisis (well, by the way, the real)' [2]. Installation on a reduction in public schools, and at the same time and the whole system of Sciences conducted totalitarian methods on top of the current management team of the Russian Ministry recalls half-forgotten campaign of the command system of consolidation of the collective farms and turned into state farms, eliminating unpromising villages... Experts predict a decrease in the number of budget places for students, an increase of tuition fees on a cost recovery basis and the increase in the enrollment in private universities, most of them giving ersatz education.

We can assume that in education events occur that P. A. Sorokin called 'social illusionism'. It can be seen not only the economic feasibility of reform in education, but also ideological: that man was more manageable, it is necessary to deprive culture, a sense of his middle name, providing training to the Western standards in the spirit of the so-called 'Bologna process'.

Today, when the intellectual potential of becoming a leading factor in the world's progress, it is urgent to take all possible measures to prevent new generations of the spiritual degradation, implementing the principle of free higher education to meet new requirements to an information-based learning, new discoveries in the science and technology.

The concept of the social mobility, P. A. Sorokin as the main channel of the vertical circulation contributes to the Institute of Education. In societies where the schools are open to all members of society, institutions of education constitute a social elevator, moving from the bottom to the very top of society. If the obstacles are in the society and privileged education is made available only to the higher strata of the population, higher education as a social elevator carries up only the residents of the upper floors, which shows once again: people contribute to social advancement wealth.

From this follows the need for the objective scientific and the sociological support of the formation of the future intellectual elite. In these circumstances, the importance attached to the public opinion research participants in the educational process – students of NArFU named after M.V.Lomonosov. The main task of the sociological support – is the early detection, diagnosis and the removal of the social tensions among the students, the public opinion.

The region has been positive experience sociological diagnosis and the support reforms in the vocational education [3]. To the research actively involved the students and graduates of the Northern (Arctic) Federal University named after M. V. University. In May 2012 graduate of the Institute of Social and Humanitarian and Political Science conducted a case study to examine the students' opinions about education in the NArFU named after M. V. Lomonosov at a new university. The results of this study, readers will learn below.

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# INNOVATION IN EDUCATION BY THE EYES OF THE STUDENTS OF NArFU: PROBLEMS OF THE TRANSITION PERIOD

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**Abstract.** The article tries to compare the ideal vision of NArFU and reality, marked by the student audience

**Keywords:** *federal university, modernization, student community, public opinion, innovation*

In the realization of the social policy of our state of considerable importance given to education. The higher education system is not only to conduct the training of highly qualified personnel, but also to raise the moral and cultural rights. How, then, should be based education management? According to G. E. Zborowski and N. B. Kostina, the management structure of education is understood as the interaction of managers and the managed entities in the field of training, education, socialization, training professionals at the federal, regional and municipal levels, in relation to the development, adoption and the implementation solutions to the effective functioning of the social groups in education [2, p. 21].

Based on this approach, management of education is seen as a constant interaction of all categories of the students, faculty, administrators, and parents. The last decade is characterized by a constant desire for the reform and modernization of the existing system of the education at all levels, from the school to university and graduate. The main issue of the concern to many experts in the field is a matter of expediency, reforms, identifying the both positive and negative aspects of the relevant policies. The mass ratio is often opposed positions - from euphoria to complete disappointment.

In the modernization of the contemporary society youth watching a fundamental transformation in the major areas of the society: social, economic, political, cultural, and suffers from the both benefits and the costs of change. One of the priorities of the modernization of the higher education in Russia today is the establishment of federal universities by combining two or more

regional universities, as well as the accession of the secondary educational institutions. This kind of the innovation should, according to the government, significantly increase the competitiveness of the newly established universities within the country as well as access to the international arena, to improve quality of produced frames, promote the development of science, as well as contribute to the further positive impact on the economy.

To learn more about the features of the transition to the federal university by the eyes of the students, in May 2012 in the Institute of Management and regionologii conducted a sociological survey of the student's 2–4 courses[1]. Sampling was carried out in a way that took part in the survey students enrolled and trained earlier in PSU named after M. V. Lomonosov and in ASTU (3–4 courses), as well as students, once received by the NArFU (2nd year). Goal of the study was to examine the life of the students. Touched on topical issues such as satisfaction studies, interest in their chosen profession, the ratio of the students to the education in NArFU, attempts to identify the problems caused for the students of 3–4 courses in the transition to the federal university.

According to the opinion of G. A. Cherednichenko, such studies are of the obvious prognostic value, provide the necessary basis to promptly address the social processes at the university, in a timely manner to resolve conflicts and contradictions [4]. It should be noted that the further reform of the university, the development and the implementation of its development strategy should be based on the active involvement of an institution of the University, as public opinion. When the passive role of the university community innovative changes in education, reaching only the 'top', or rejected, or distorted, or silently sabotaged.

An important element of the expressing public opinion on the reorganization of pre-existing PSU and ASTU into one federal university, a student, decided to say, the opinion 'from below'. Students also have different opinions as it turned out the process. The research found that almost half of the respondents (49.8 %) report the presence of the both positive and negative sides. More negatively related to the reorganization of the students initially enroll in PSU named after M. V. Lomonosov. This is due, firstly, the fact that the basis for the creation of a federal university was selected ASTU. If students ASTU not changed its territorial position, then PSU students were 'shuffled' in Institutions and relocated to other, often less successful academic buildings. It is also possible to speak of in the minds of some students' stereotypes imposed on the media, formed through the social networking.

[1] Total surveyed 404 students (2–4 year) of the 14 institutions covered 29 specialties. Sampling was carried out by faculty, courses, gender, place of training before joining the Safa, through learning. The study involved 58 undergraduates 1 course of IUiR specialty эSociology of Management N. A. Karpova, A. A. Lukina, I. I. Tarasova, O. A. Henerina, Y. Y. Shilovsky. The head of the research – Doctor of Social Sciences, Professor V. I. Uliyanovsky.

The contradictory nature of the integration process is reflected in the media - some form ideal image of the University, the second – the negative, describing weaknesses of the organization down to the failure of the idea of a federal university. Students, in turn, analyze the state of the educational process and the structure of the university; compare the ideal and the reality. Opinion polls show that the real and the ideal image do not match the majority of the students. Students who participated in the study, based on the prevailing myths in Russian society and bringing his experience, correlate NarFU's new status with a growing bureaucracy, corruption and administrative formalism (33.2 %). It should be noted that the mood of the students was formed largely under the influence of the media do not always reflect the real processes of restructuring schools.

However, the students have shown that excessive red tape and the administrative formalism are also very real problem, has an impact on the learning process (the sealing of the training time), an organization of the independent work of the students (access to library collections), obtaining various certificates and to address other specific issues of life and training at the Federal University.

On this basis, the new mission of the University is to make the student group as an ally and try to prove and show the real-time status of the new federal university is primarily associated with an increase in the prestige and quality of education, democratic governance and respect for themselves students, their needs and interests.

Some students do not understand the importance of the creating an innovative federal university and do not see its perspectives for the young people (17.6 %). So, former students of PSU claim that their profession will not be useful for the development of the Arctic (45 %), many found it difficult to answer this question because no awareness of the main activities of the university (28.3 %). This is explained by the fact that the number of the budget and commercial places on humanities steadily declining and there is a clear rationale for what the federal university teaching and other social sciences, as University was established, according to the majority of the students, for the development of the Arctic resources (56.4 %).

Views of the students enrolled earlier ASTU, and a group of the students at once admitted to NArFU named after M. V. Lomonosov, were on opposite sides on the question of the usefulness of the profession for the Arctic exploration. Accordingly, 39.1 % of students know exactly what is needed for their profession development of Arctic resources: Oil and Gas Institute – 96.3 %, the Institute of Construction and Architecture – 50 %. However, in this group of respondents, Forestry

Students (60 %) and the Institute for Energy and Transport (50 %) do not see the connection of his profession with the main directions of the development of the university.

These data again confirm that the student community is a low awareness of the importance and the main activities of the Federal University of innovation in education. The reasons are not always in a clear justification of the decision of the university on the various issues and to some extent the removal of the most of the activities of the students and teachers who are not always due to the huge employment can attend important conferences and seminars.

Thus, when designing and implementing development strategies of NArFU named after M. V. Lomonosov should note the importance of the opinion as the experts, analysts, managers, and record the student audience and the mood of the faculty. Integrating public sentiment suggests the authorship, strategic partnerships university administration and faculty, and the students in the design and implementation of the development policies, innovative projects. At the same time, the university community itself, with all its current fragmentation, is critical of the real role of public opinion.

In an interview with the experts noted that today the supreme power in the Russian university has the features characteristic for the government as a whole – without due regard to the reform of the place, role and importance of public opinion. It would seem innovations in education, programs that are being developed by the University, with information on key units, but should discuss the strategy of the University at the department and student organizations. And there must be confidence that the discussion is not in vain that the views of the faculty, staff and students will be heard and accepted [3].

The most important factor affecting the image and the reputation of the educational institution is the idea of the university, which are the students themselves [1]. Students are not the only indicator of the quality of the university education services and reliable source of information about the institution to others. Students carry the features of the corporate culture of the university, its traditions, values, as in the period of his training, and many years after its completion. Depending on how these values are shared by the students formed positive or negative information about the institution in the Russian society, its real image.

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# PROFESSIONAL SELF DETERMINATION OF THE STUDENTS OF NArFU NAMED AFTER M. V. LOMONOSOV

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**Abstract.** The article analyzes the professional self-determination of the students. Special attention is paid to the history and the development of NArFU named after M. V. Lomonosov formed on the basis of the Arkhangelsk State Technical University. Mentioned work on different aspects of the professional representation

**Keywords:** *professional representation, professional self, professional expectations*

More than three years ago in the Arkhangelsk region in accordance with the presidential decree of 21 October 2009, was created the Northern (Arctic) Federal University. Strategic aim of NArFU is to provide the innovative scientific and human support, the protection of geopolitical and economic interests of Russia in the Arctic through a system of continuing professional education, the integration of education, science and industry, and strategic partnership with the business community [8]. In this regard, the university departments were established in the institutions opened new specialties, there have been other changes.

One of the most pressing problems today is that the applicant, who decided to go to the university found many difficulties. This lack of the understanding of what constitutes this or that profession, what is the need for it and that it is directed. As a result, institutions of higher education receive applicants with the professional unformed ideas, resulting in a sometimes frustrating in choosing a career, quick professional burnout, and many other negative phenomena.

The problem of the professional representation in recent years become more and more important, it has received increasing attention in the study of the different directions. In the domestic science formation of the professional representations of the students in the educational area are reflected in the works of E. A. Smirnova [6, 2003], G. S. Pomaz [4, 2006], E. Y. Eliseeva [1, 2011] and others. In light of these changes is evident problem of professional identity of students.

The study of the process involved Pomazkova J. S. (2011), O. V. Zinnurova (2011), N. A. Tsvetkova (2005), E. V. Lobova (2006).

Under the professional self-determination, we will understand the process of formation of the personality of its relationship to the professional working environment and the way to self-realization. One of the components of the professional self is a professional presentation. Professional presentation is a complex dynamic in psychology, structural components of which are: understanding of the profession and professional identity, self-image as a future professional, understanding of the possible professional future.

In this work, we try to examine the professional opinions of the students of NArFU derived from the survey 'Student NArFU: the vector of changes'. Answers to the question 'why did you decide to go to this institution?' we considered from two points of view. From a gender perspective: more than half of men (60.8 %) and girls (57.3 %) said that 'chose this institution'. However, most of them are trained on a budgetary basis (62.5 %).

More independent selection distinguished students of the Institute of Physical Culture, Sport and Health – 86.7 %, of the Institute of Oil and Gas – 85.2 %, and the Institute of Management and regionology – 75.9 %, Law Institute – 75.9 %. In our view, this can be explained by the fact that the students of these institutions approach the professional choice to become more aware, because they require training in the certain instincts and abilities.

Parents' opinions into account when selecting the institute 11.5 % of girls and 7.6 % of boys. This suggests that girls are more dependent on the opinion of the elders. The opinions and advice of parents listen more students of the Institute of Economics (32.1 %) and the Institute of Law (17.2 %). This phenomenon can be explained by family traditions.

However, often when going to the college students are not guided by the professional views, desires, priorities, and the chance to get an education at the university on a budgetary basis.

Ha To the question 'do not have hesitations about the chosen institution?' two-thirds of male representatives have answered, 'No, not there', and a third of women have doubts about the correctness of the professional choice. After analyzing the students' responses on institutions, we came to the following conclusion. Happy with the choice – the students of the Institute of Physical Culture, Sport and Health (83.3 %), the Institute of Engineering and Architecture (78.6 %), Institute of Law (75.9 %), the Institute of Economics (71.4 %), Institute of Oil and gas (70.4 %). There are doubts about the selected institution in Forestry Students (43.3 %), the Institute of Philology and Intercultural Communication (40 %) and others.

The research revealed the importance of the future profession students of the various institutions. We addressed this question in two ways: in the terms of ideas about future career of the students enrolled in the institutions in the humanities and technology classes, and depending on the course.

The students with a humanitarian aim training noted the following significant moments in the future work: the profession should have an interesting creative nature of the work, meet the abilities, skills. In the profession should be possible to more fully realize its potential, also benefit the people, to achieve recognition and respect.

The students with technical background note the following important points in the future profession. Profession, in their view, must comply with the means and ability to have a relationship with the modern equipment and technology, benefits people, the possibility to obtain high incomes, a high position, and have a high status in the society.

After analyzing the responses of the students from different courses (2, 3, 4 courses), we identified a number of these trends. First, the positive trend from course to course students showed the following views about the profession: independence, independence, (2 year – 15.2 %, 3 year – 18.9 %, 4 year – 21.3 %), the ability to more fully realize their potential (2 year – 21.2 %, 3 year – 25.0 %, 4 year – 26.4 %), the ability to achieve recognition and respect (2 year – 12.1 %, 3 year – 15.2 %, 4 rate – 17.2 %). This suggests that students in training receive the necessary knowledge and skills that form the confidence and help them in their future career successes, to become independent and respected people in the society.

Small shifts in the professional representations of the students are found in the following areas: communication with the modern technique and technology (2nd year – 15.2 %, 3 year – 18.9 %, 4 year – 10.9 %), the ability to benefit people (2nd year – 24.2 %, 3 year – 30.5 %, 4 year – 28.7 %), the ability to make high profits (2nd year – 54.5 %, 3 year – 41.5 %, 4 year – 48.3 %). This can be explained by the fact that students from the different institutions in the third year come to the industrial practice, where he was directly acquainted with their future professional activities, so their professional representation of change and become more realistic.

Negative trend of the development of the professional representations of the students from the different institutions of NArFU have criteria such as creative and interesting nature of the work (2nd year – 59.1 %, 3 year – 39.6 %, 4 year – 39.5 %), ‘according to my abilities profession and skills’ (2nd year – 37.9 %, 3 year – 34.8 %, 4 year – 30.5 %), the ability to take a high position, have the power (2 year – 13.6 %, 3 year – 10, 4 %, 4 year – 5.7 %). This trend can be explained by the fact that you go to university, most students have a vague idea of the future careers and op-

portunities in his career. Therefore, to get more information about the profession, and some experience in this field, some students give up on professional self mismatch profession to their abilities, ideas about the opportunity to take a high position.

The mission of NArFU is to build and develop a competitive specialist, who understands the most useful of the entire national, European and the world educational systems, and created and established on the basis of NArFU centers of the innovation, Arctic technology will attract to the North and other highly skilled professionals.

Russia connects its future with the Arctic and its resources. The Arctic needs professionals to work on the Northern Sea Route, who know a lot about the Arctic tourism, understanding the arctic logistics, especially the implementation of the engineering solutions. There are many professions that could strengthen Russia's national interests in the Arctic region and in the international arena [8]. As a result, the study 'Student NArFU: vector of changes' we came to the question 'Do you think that your profession is useful for the development of the Arctic?'. We have the following result. The answer 'I think that is useful' was chosen students of the Institute of Oil and Gas (96.3 %), Institute of Informatics and Space Technology (40.9 %), the Institute of Engineering and Architecture (39.3 %). 'I think that is not useful' – Forestry Students (60 %), the Institute of Physical Culture, Sports and Health (53.3 %), the Institute of Natural Sciences and Biomedicine (53.3 %). This can be explained by the fact that the students of these institutions do not see the importance of their profession for the development of the Arctic resources. Also obvious are obvious distortions in the understanding of the mission and the vector of the NArFU, his PR. Even in the name of the university because it is not only about the Arctic, and the north, where demand for the engineers and the humanists of the various professions, including teachers, social scientists, managers, etc.

Thus, on the basis of our research, we got the following conclusions:

- the majority of the students (60 %) choose Institute admission alone, the others listen to the advice of parents, friends;
- For the students with technical and humanities education in the importance of the different aspects of their future careers. For the first important presence in the profession due to modern equipment and technology, for the latter is characterized by an interesting creative approach to work and the ability to fully realize their potential;
- professional presentation, based on which students take a decision on the choice of profession, cannot, in most cases, to provide a sound basis for its development and further specified in the course of the study;
- at the stage of the professional self-positioning the future of the Arctic only students who are studying in the institutions that are directly related to the development of the Arctic resources and territories.

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# HISTORICAL SCIENCES

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## TRANSFORMATION CHANGES IN THE TERRITORIAL-RESEDENTAL STRUCTURE OF THE ARKHANGELSK REGION IN 1939–2010

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**Abstract.** The article represents the results of a research of transformational changes that have occurred in the territorial-residential structure in the rural areas of the Arkhangelsk region in the period between censuses, 1939−2010

**Keywords:** *territorial settlement structure of the region, population, transformational change*

The territorial organization of the population is considered by me as a spatial form of the population. It includes the existing system of the population distribution with functional relationships territorial settlements and areas of the population concentrations. In a functioning territorial settlement structure of the region under the influence of various factors, there are constant changes. Their transformational nature is particularly evident in Russian society in the most dramatic periods in its history. One is the transition from the Soviet model of the administrative and bureaucratic control of all spheres of social life to the model of a liberal society with the Russian market-transfer economy.

In published previously my article focuses on the problems of the forming municipal-territorial structure of the local government at the regional and the local levels [1]Their analysis has led us to a better understanding of the influence of transformation processes in the territorial settlement structure of the region (‘living space’) for administrative-territorial and territorial organization of local self-government of the Arkhangelsk region (‘space power’).

Generalized senior research presented in the paper under the title ‘The transformation of the territorial and settlement structure in the Arkhangelsk region as a factor in the formation of a regional model of the local government’. It includes four articles:

[1] See: Konstantinov A. S. Territorial organization of local government in the Arkhangelsk region // XI International Forum Solovetsky: Collection / Ed. Y. F. Lukin. Arkhangelsk – Solovetsky Islands, 2003. P. 45–55; Municipal-territorial organization of local government // Regional management in the modernization of Russia: monograph / [S. I. Shubin and others]; Under Society. Ed. S. I. Shubin and V. V. Stepanova; Pomor State. University named after M. V. Lomonosov. Arkhangelsk: Pomor University, 2007. P. 37–58. Zaitsev A., Konstantinov A. S. On the question of optimality criteria territory of the rural municipality in the northern region // Municipal Economy. 2010. Number 4. P. 2–7.

1) ‘Transformational changes in territorial and residential structure of the Arkhangelsk region in 1939–2010 years’.
2) ‘Demographic Change as a factor of transformation of territorial settlement structure in the northern environment (region) in 1939–2010 years’.
3) ‘The development of the territorial organization of local government in the Northern region’.
4) ‘Problems and perspectives of the territorial organization of the local government in the Arctic regions’.

The time frame of our research, based on the population census, covering the period 1939–2010 years[2]. More in-depth analysis of the developments in the territorial structure of the settlement of the Arkhangelsk region and the rural population, carried out by groups of the rural areas for the time period between the censuses of 1970–2010 years. The sample included villages with their populations.

As known, the operating current models of the territorial organization of the local self-government is a system of the administrative-territorial structure of the Arkhangelsk region, which since its inception in 1937 as the subject of the state power and the administration have been some qualitative changes.

Chronology of these developments in the administrative-territorial structure of the northern region, one can follow the handbook prepared by the specialists of the State Archives of the Arkhangelsk region[3]. For the experts in the field of the local government, this work is particularly significant because it represented the material allows us to investigate the processes that occur at the local level, that is, in every rural area as a basic administrative unit of the administrative-territorial structure of the region.

No less valuable source for the research of this topic is the statistics of the population censuses in the Arkhangelsk region. As a rule, published statistical compilations census results in generalized form in the whole region, in urban and rural areas. But no less interesting for researchers to submit statistics, census data on population, in the context of each of the village, located in the countryside. First, they allow determining the influence of transformational changes taking place in the territorial and residential structure, the administrative-territorial system in the region, necessitating changes in the ‘space power’ at the local level. Second, the transformation of the territorial settlement structure is considered by us as the most important factor, which has had a sig-

[2] Sources: GAAO, f. 1892, op. 1, file 697; op. 4, 31, op. 25, etc. 4885; Rural population of the Arkhangelsk region on 1 January 2004. Statistical Bulletin. Arkhangelsk oblkomstat, 2004. 158 p.; Rural population of Arkhangelsk region. Results of the National Population Census 2010. Statistical Yearbook. T. 2. Arkhangelsk Arhangelskstat, 2012. 128 p. The author is grateful to staff in the department of population of the territorial body of the Federal State Statistics Service of the Arkhangelsk region for their help in the study.

[3] Administrative-territorial division of the Arkhangelsk province and region in XVIII–XX centuries: Handbook. Arkhangelsk: STI ‘True North’, 1997. 413 p.

nificant impact on the 'living space' of the rural population. Third, our results in the application of the comparative statistical analysis of census data necessary for the simulation forecasts of the territorial organization of the local self-government on the local and regional levels.

Population census data describing the state in the territorial structure of the settlement of the Arkhangelsk region in the year of implementation is not possible to objectively evaluate the changes that have taken place in it for the past 70 years. The problem lies in the fact that during the study period in the administrative-territorial Arkhangelsk implemented measures to improve it. Escalation occurs several rural areas through the dissolution of others, within the individual village councils passed from one rural area to another, etc. In light of the circumstances was to analyze census data summarized by two models territorial settlement structure in the region. The first model is a compilation census data on the number of villages with the residents of the administrative boundaries of the rural areas in the census year. In the second model, the results of each census were counted us rural settlements within the present boundaries of municipalities Arkhangelsk region. This will allow, in our opinion, more objectively assess the impact of transformational changes that have occurred in the local territorial entities – rural areas.

In the proposed table below 1 shows the results of the census, which characterize changes in the territorial structure of the settlement in the rural areas of the region. Data on the number of villages within the administrative boundaries of the rural areas in the year of census disclosed in columns of table 2.6, translated by the author, census data on the number of rural communities located in the current administrative boundaries of the municipalities in the region on January 1, 2011 – in 7.11 columns.

*Table 1*

***Dynamics of the changes in the number of the rural settlements in the rural areas of the Arkhangelsk region in (1939–2010.)***

| | **According the data of the census** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Number of the villages with people living in them (in the administrative boundaries in the census year, except for 1959) | | | | | Number of the villages with people living in them (within the administrative boundaries of January 1, 2010) | | | | |
| | **years** | | | | | **years** | | | | |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** |
| | 1939[4] | 1959[5] | 1970 | 1989[6] | 2010[7] | 1939 | 1959 | 1970 | 1989 | 2010 |
| region* | 8234 | 6921 | 5249 | 3651 | 3108 | 8234 | 6921 | 5249 | 3651 | 3108 |
| NAO | 479 | 179 | 89 | 49 | 40 | 479 | 179 | 89 | 49 | 40 |
| Velskiy | 334 | 532 | 411 | 303 | 258 | 539 | 532 | 411 | 303 | 258 |

[4] Administrative-territorial division of the Arkhangelsk province and region in XVIII–XX centuries: Handbook. Arkhangelsk: STI 'True North', 1997; GAAO, f. 1892, op. 1, file 697; op. 4, etc. 71, l. 1.
[5] Data (columns 2 and 7) are up VPN 1959 administrative boundaries on January 1, 1961.
[6] GAAO, f. 1892, op. 25, 4885 d, l. 3 vol. (January 12, 1989: The number of s/s, n/p).
[7] The rural population of the Arkhangelsk region. Results of the National Population Census 2010. Statistical Yearbook. T. 2. Arkhangelsk Arhangelskstat, 2012. 128 p.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Verhnetomskiy | 324 | 465 | 361 | 268 | 223 | 472 | 465 | 361 | 268 | 223 |
| Vilegodskiy | 325 | 346 | 219 | 172 | 143 | 325 | 346 | 219 | 172 | 143 |
| Vinogradovskiy)[8] | 354 | 314 | 110 | 96 | 90 | 354 | 314 | 110 | 96 | 90 |
| Emezkiy[9] | 287 | – | – | – | – | – | – | – | – | – |
| Kargopolskiy | 522 | 479 | 418 | 215 | 169 | 644 | 595 | 418 | 215 | 169 |
| Karpogorskiy[10] | 182 | – | – | – | – | – | – | – | – | – |
| Konoshskiy | 194 | 156 | 200 | 157 | 126 | 228 | 156 | 200 | 157 | 126 |
| Kotlasskiy | 436 | 441 | 376 | 253 | 216 | 663 | 441 | 376 | 253 | 216 |
| Krasnoborskiy | 470 | 668 | 574 | 302 | 239 | 767 | 668 | 574 | 302 | 239 |
| Lenskiy | 206 | 267 | 228 | 136 | 88 | 226 | 267 | 228 | 136 | 88 |
| Leshukonskiy | 71 | 104 | 59 | 50 | 44 | 71 | 104 | 59 | 50 | 44 |
| Mezenskiy | 78 | 59 | 47 | 43 | 41 | 78 | 59 | 47 | 43 | 41 |
| Nyandomskiy | 346 | 223 | 189 | 140 | 116 | 312 | 223 | 189 | 140 | 116 |
| Onejskiy | 180 | 122 | 171 | 95 | 83 | 176 | 122 | 171 | 95 | 83 |
| Pinejskiy | 168 | 238 | 136 | 118 | 108 | 350 | 238 | 136 | 118 | 108 |
| Plesezkiy | 310 | 236 | 295 | 224 | 173 | 644 | 501 | 295 | 224 | 173 |
| Primorskiy | 146 | 282 | 203 | 198 | 194 | 146 | 282 | 203 | 198 | 194 |
| Priozerniy[11] | 456 | 381 | – | – | – | – | – | – | – | – |
| Rovdinskiy[12] | 412 | – | – | – | – | – | – | – | – | – |
| Solvichegodskiy[13] | 247 | – | – | – | – | – | – | – | – | – |
| Ystiyanskiy | 391 | 385 | 304 | 223 | 199 | 506 | 385 | 304 | 223 | 199 |
| Holmogorskiy | 342 | 511 | 447 | 389 | 358 | 629 | 511 | 447 | 389 | 358 |
| Cherevkovskiy[14] | 560 | – | – | – | – | – | – | – | – | – |
| Shenkurskiy | 414 | 533 | 412 | 220 | 200 | 621 | 533 | 412 | 220 | 200 |
| The results according the regions | 7755 | 6742 | 5160 | 3602 | 3068 | 7751 | 6742 | 5160 | 3602 | 3068 |

[8] Decree of the Presidium of the Supreme Soviet of the RSFSR renamed Vinogradovsky // Political division Arkhangelsk province and region in the XVIII–XX centuries: Handbook. Arkhangelsk.: STI 'True North', 1997. P. 141.

[9] Abolished by the decree of the Presidium of the Supreme Soviet of the September 11, 1959 and the decision of the Executive Committee of 15 September 1959, with the inclusion of its 11 rural councils in the Kholmogory District // Administrative divisions of Arkhangelsk province and region in the XVIII–XX centuries: Handbook. Arkhangelsk: STI 'True North', 1997. P. 143.

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[13] Abolished by the decree of the Presidium of the Supreme Soviet of the September 30, 1958 and the decision of the Executive Committee from October 1, 1958 with the inclusion of its territory in the Kotlas District // Administrative divisions of Arkhangelsk province and region in the XVIII–XX centuries: Handbook. Arkhangelsk: STI 'True North', 1997. P. 187.

[14] Abolished by the decree of the Presidium of the Supreme Soviet of the September 11, 1959 and the decision of the Executive Committee of 15 September 1959, with the inclusion of its territory in Verkhnetoemsky area (4 s/s) Krasnoborsky area (4 s/s) Ustyansky Ryan (1 s/s and 5 s/s) // Administrative divisions of Arkhangelsk province and region in the XVIII–XX centuries: Handbook. Arkhangelsk: STI 'True North', 1997. P. 195.

According to the 1939 census, in the Arkhangelsk area, there were 8234 villages with their populations, which were located in rural areas (excluding the administrative authority of the city council). During the period of 1939-2010 years their number was reduced to 5126, including: the 1939–1959 years – in 1313, in 1959–1970 – in 1762, in the years 1970–1989 – in 1598, in 1989–2010 – in 543 settlements.

Between the censuses of 1939–1959 years have changed dramatically territorial settlement structures Belsky, Verkhnetoemsky, Kotlas, Krasnoborsky, Pinega, Ustyansky, Kholmogorsky Shenkursky and areas that had joined rural communities disbanded Emetskogo, Karpogorskogo, Rovdinskogo, and Solvychegodsk Cherevkovskogo areas. In the early 1960's. ceased to exist Lakeside district, whose territory was ceded to Kargopol and Plesetsk area. At the same time, significantly increased the number of the villages in the Primorsky region due to the transfer of certain territories of rural councils. Minor changes have occurred in the years 1939–1970 a territorial settlement structures, caused by transmission from one village councils in rural areas to others.

Turn to an analysis of data obtained in the simulation territorial settlement structures of municipalities in their administrative boundaries. They coincide with the boundaries of the former administrative units (rural) administrative-territorial structure of the Arkhangelsk region.

*Table 2*

***Dynamics of the changes in the number of the villages in the rural areas Arkhangelsk region (1939–2010) Within the administrative boundaries on January 1, 2010***

| | As a percentage of the number of the villages in 1939 | | | | |
|---|---|---|---|---|---|
| | **1939** | **1959** | **1970** | **1989** | **2010** |
| The results of the region | 100.0 | 84.1 | 63.8 | 44.4 | 37.8 |
| Nenetskiy Autonomous District | 100.0 | 37.4 | 18.6 | 10.2 | 8.4 |
| The results in the regions (without NAO) | 100.0 | 87.0 | 66.6 | 46.5 | 39.6 |
| Vinogradskiy | 100.0 | 88.7 | 31.1 | 27.1 | 25.4 |
| Kargopolskiy | 100.0 | 92.4 | 64.9 | 33.4 | 26.2 |
| Plesezkiy | 100.0 | 77.8 | 45.8 | 34.8 | 26.9 |
| Pinejskiy | 100.0 | 68.0 | 38.9 | 33.7 | 30.9 |
| Krasnoborskiy | 100.0 | 87.1 | 74.8 | 39.4 | 31.2 |
| Shenkyrskiy | 100.0 | 85.8 | 66.3 | 35.4 | 32.2 |
| Kotlasskiy | 100.0 | 66.5 | 56.7 | 38.2 | 32.6 |
| Nyandomskiy | 100.0 | 71.5 | 60.6 | 44.9 | 37.2 |
| Lenskiy | 100.0 | 118.1 | 100.9 | 60.2 | 38.9 |
| Ystiyanskiy | 100.0 | 76.1 | 60.1 | 44.1 | 39.3 |
| Vilegodskiy | 100.0 | 106.5 | 67.4 | 52.9 | 44.0 |
| Onejskiy | 100.0 | 69.3 | 97.2 | 54.0 | 47.2 |
| Verhnetoemskiy | 100.0 | 98.5 | 76.5 | 56.8 | 47.2 |
| Velskiy | 100.0 | 98.7 | 76.3 | 56.2 | 47.9 |
| Mezenskiy | 100.0 | 75.6 | 60.1 | 55.1 | 52.6 |
| Konoshskiy | 100.0 | 68.4 | 87.7 | 68.9 | 55.3 |
| Holmogorskiy | 100.0 | 81.2 | 71.1 | 61.8 | 57.7 |
| Leshykonskiy | 100.0 | 146.5 | 83.1 | 70.4 | 62.0 |
| Primorskiy | 100.0 | 193.2 | 139.0 | 135.6 | 132.9 |

In the analysis of the changes that have occurred in the territorial-residential structure in the rural areas of the Arkhangelsk region, it should be a very important fact. As the study of the materials to the 1939 census, they revealed considered all rural areas, some of which was located at the place of objects or areas of industrial activity of the rural population. For example, in the Nenets National District These include the location of the farms, encampments, tents, various items, summering, industrial and hunting huts, weather and radio stations, etc. This situation was common to all rural areas of the Arkhangelsk region. During the subsequent censuses indicates the type locality, which determines the nature of industrial activity living in it the adult population.

Territorial and settlement structure in the Nenets Autonomous District for this period has changed dramatically: in 1939 there were 479 rural settlements. In the following decades the tendency to reduce them. For example, in 1959, compared to 1939, the number fell to 2.7 times in 1970 (compared to 1959) – almost 2 times. Approximately the same rate typical for the period 1970-1989 years. During the period of market reforms number of villages was reduced from 49 to 40.

The analysis of the census years 1939–2010 allows several groups of the rural areas, which are characterized by the changes in the territorial and residential structure.

The first group consists of three rural areas: Vynohradovskiy, Kargopolskiy and Plesetskiy, which has remained virtually a quarter of the settlements with residents.

The second group includes Pinezhsky, Krasnoborsky, Shenkurskiy, Kotlas, Lenski and Ustyansky areas. The first four 'lost' almost two-thirds of settlements, and the rest – almost 60 % of the level in 1939.

The third group consists Vilegodsky, Onega, and Belsky Verkhnetoemsky areas (left settlements within 44–48 %).

The fourth group. In the four areas (Mezen, Konoshsky, Kholmogorsky, Leshukonsky) for this period continues to operate settlements within 52,6–62 %.

The fifth group. As for the assessment of changes in the territorial structure of the settlement of the Primorsky district, there is a sharp increase in the number of villages in between census years 1939–1959 explained by acceding to the territories of the village councils from other areas. If we take the basic framework for the exponent of the rural settlements of the 1959 census, and compare it with the data of the census of 1989 and 2010. This relationship is as follows: 70.2 and 68.8 % compared to 1959.

Summing up the results of preliminary analysis of the changes that occurred in the territorial structure of the settlement of the Arkhangelsk region in the period 1939–2010. Should pay attention to the underlying trends. It was during the Soviet period came a contradictory process, which was characterized, on the one hand, the industrial development of the natural resources of our northern region and, therefore, increase the number of rural communities (30–40-ies XX century). On the other hand, as the results of the census in the next few decades have seen a significant reduction in there. Overall, over half a century of Soviet power in the region has decreased 4 583 villages or 55.7 % of the total in 1939.

A more detailed research of the territorial settlement structure in the rural areas of the Arkhangelsk region covers the time period between the censuses 1970–2010. This is due primarily to the fact that it covers two equivalent to the time frame stages of developed socialism (1970–1989) And the transition to a market-liberal model of Russian society (1989–2010). One of the objectives of our research was to investigate the changes that took place in the territorial-residential structure in the groups of the settlements (villages, villages, towns, railways, etc.).

The sample of the study was 5 393 villages with their populations. They operate in rural areas of the Arkhangelsk region in 1970–2010. At the time of the census (15 January 1970), there were 5 249 villages with the residents (excluding the administrative authority of the city governments). There is a difference in 144 settlements due to a number of circumstances. First, during the study period due to operational need arose new rural settlements. They could not be included in the proceedings of the previous census. Secondly, a comparative analysis of the lists of villages and the number of people in them in the context of rural councils from censuses in 1970, 1989, 2002 and 2010 provides the ability to identify individual cases of ‘revival’ of settlements in connection with the appearance of their inhabitants. However, according to the materials of the next census, these settlements could stay again with no permanent residents. Third, create a so-called temporary settlement, inhabited by people. This group of villages is also counted in censuses.

Almost all groups of rural settlements territorial settlement structure of the Arkhangelsk region underwent a process of reducing their numbers. In the 1970–2010 years the number of villages with a population decreased by 2,121 units, of which 1,440, or 67.9 % – in the years 1970–1989, 491, or 32.1 % – in the period of 1989–2010. In the group of villages the number of ‘loss’ between the two comparable time intervals correspond as 45 (‘Market’) to 52, and in general for the entire period – 97. The group got their number remained virtually unchanged – 76–75 units. The number of railway settlements decreased by 90, of which 75.6 % – in the years 1970–1989. From 54 to 13 was the reduction in the group of other towns, with 35 of them in the years 1970–1989.

Turn to the analysis of the changes taking place in the territorial-residential structure in the context of the rural areas as a local territorial entities in the Arkhangelsk region in three main groups of the rural settlements: villages, towns, and railroad villages.

As noted above, a core group of the rural settlements are villages. The North Village, whatever the conditions of their life does not have, as a social barometer sensitively captures all the changes taking place in the 'living space' of its residents. Functioning simultaneously in the 'space power', it is not always able to resist the activities of government agencies to restructure rural settlements.

Census, recording the results of this policy and its implications, provide researchers the opportunity to analyze the changes that have occurred in the territorial, life and social environment of rural residents, which has been and remains for them the northern village. And if the 'living space' becomes 'lifeless', it meant that some of the villages have been his life, performing, usually in advance of its social mission.

In the Arkhangelsk region, the number of villages with a population decreased from 4,582 in 1970 to 2,651 in 2010, or 42.1 %, in the Nenets Autonomous District – from 48 to 19 villages, or 60.4 %, respectively. The situation in rural areas is contradictory. In the Maritime and Mezenski areas, their number decreased marginally (1.2 and 4.3 %). In the four rural areas in the process of restructuring the 'losses' were from 20.2 to 23.5 % of villages (Kholmogorsky, Leshukonsky, Vynohradiv, Pinega). In six areas, the number of villages has decreased from 33.5 to 40.3 % (Vilegodsky, Ustyansky, Konosha, Nyandoma, Belsky, Verkhnetoemsky). 'Leaders' to reduce 'dead-end' have been found to Lenski (62.4 %), Kargopol (60.4 %), Krasnoborsky (58.9 %), Shenkurskiy (53.8 %), Onega (53.2 %), Plesetsk (47.8 %) and Kotlas (44.9 %) regions.

The restructuring in the Arkhangelsk region of the register of the rural settlements with residents for the period 1970–2010 years. 'Dropped out' 1931 Village. The ratio of 'lost' villages was 1,440 in 1970–1989 to 491 in 1989–2010, or 2.9 to 1. In the Nenets Autonomous District, this indicator is 6.3 to 1. Seven rural areas identified exceeding the regional level: in Shenkursk (7.8 to 1), Onega (6.3 to 1), and Vynohradiv Kargopolsky (4.3 to 1), Krasnoborsky (4.2 to 1), Ustyansky (3.8 to 1), the Kotlas (3.6 to 1). In Pinega area ratio was found to be, in Seaside – not in favor of the post-Soviet period. In other rural areas have been below the regional level.

If we analyze the changes that occurred in the territorial structure of the rural settlement of the region in the terms of the market changes, it should be noted that two-thirds of the villages in the number of 'lost' their inhabitants to 1989–2004 years. The average regional rate exceeded

in nine municipalities, including in the Kotlas (94.1 %), Vilegodsky (91.3 %), Nyandoma (90.5 %), Onega and Ustyansky (77.8 %).

The process of the formation, operation and restructuring of the settlements in the Arkhangelsk region is closely linked to the economic development of the natural resources in its territory in the Soviet era, and in the next decade – with a sharp drop in production in those sectors of the economy of the region, which provides vital functions of this group of the rural settlements. In it we have not included the railway settlements, which are considered as a separate group and element territorial settlement structure of the region.

According to census data, in 1970, in the Arkhangelsk region there were 400 villages, inhabited by people, in 1989 – 348, in 2010 – 303. During this time period the total number fell by 24.3 %, in the Nenets Autonomous District – by 30.0 %. In rural areas, the pace of restructuring in the group of rural settlements is as follows. In Mezenski area, not a single village. Decreasing trend in the number of settlements, compared with the level in 1970, is typical of 14 rural districts, at the level of 1970 and for Vynohradiv Kotlassky areas above this level – for the Plesetsk District. If we compare the data on the areas with the regional index, its excess is observed in the 11 local territorial entities, especially in Leshukonsky (66.7 %), Lensky (51.7 %), and Kargopolsky Nyandoma areas by 50 %, respectively.

If we compare the changes that took place in between censuses, 1970–1989 and of 1989–2010., in the first period only Vynohradiv, Kotlas, Plesetsk and Primorsky regions there was a slight increase in the number of the settlements, in the second period – in Pinega area. In Belsky, Vilegodsky, Krasnoborsky, Kholmogorsky Shenkursk areas and all the 'loss' occurred in the time period 1970–1989. In the rest of the distribution of the 'lost' villages in the mentioned period is approximately equal to the character with minimal deviations. Note that 30 of the 40 villages (75.0 %), who were without inhabitants in post-Soviet period, became deserted settlements in 1989–2004, That is, at the initial stage of the market reforms.

The rail group of the settlements in the rural areas in 1970–2010 steadily decreased from 137 in 1970 to 45 in 2010 for the last almost 20 years of Soviet power had fallen by 2 times, at the beginning of the second decade of this century, one-third of the remaining rural settlements of the total. The lowest rates were observed in their restructuring Nyandoma (58.3 %) and Konoshsky (42.9 %) regions. At the same time in the six districts was exceeded average regional rate. For example, in the Lena area including railway settlements declined in 1970-2010 from 22 to 3, or 86.4 %, in the Onega district – from 21 to 5 (by 76.2 %), respectively. Almost the same pattern was observed in Plesetsk District.

### *Conclusions*

1) As a result of the transformational changes those have occurred in the territorial and residential structure in the Arkhangelsk region in 1939–2010. Almost two thirds of the villages ceased to exist. The biggest 'loss' characteristic of the Nenets Autonomous District, as well as rural areas, located generally in areas in the river basins of the Northern Dvina and its tributaries, Onega (Plesetsk Kargopol-sector), Pinega.
2) In the depth analysis of the transformation processes in the territorial structure of the settlement of the region for 1970–2010 groups villages showed that in the period from the register of rural settlements retired two-thirds of railway settlements, 42.1 % of villages and one in four village. The greatest reduction was observed in their 1979–1989. Examination of the data characterizing the transformation processes in the territorial structure of the settlement of the Arkhangelsk region in the conditions of the market transformation, leads to the following conclusion. A significant number of the lost settlements fall on the initial stage of the economic reform, that is, 1991–2002. It was during this period were formed models of territorial organization of the local government in the region. The obvious question is: how to account for changes in the territorial structure of the settlement of the Arkhangelsk region during the 2003 municipal reform.
3) The recent developments in the period between the censuses of 1939–2010 years undergo profound changes in the territorial structure of the settlement of the Arkhangelsk authorities affected the livelihoods of the rural population. 'Space Life' rural residents resulting from the expansion of exploiting natural resources in the region actually become a 'space of work and survival'. Therefore, no less interest to the researcher is subject influence of the demographic processes occurring during this period in the rural areas of the northern region, its territorial settlement structures and territorial organization of local government. That's the topic and will be dedicated to our next article.

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**The map of the Arkhangelsk region**. URL: http://travelel.ru/karta-arxangelskoj-oblasti-podrobnaya-so-sputnika.

# INFORMATIONAL RESOURCES

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## RUSSIAN ARCTIC BY THE EXPERTS EYES AND USERS OF THE INTERNET

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**Abstract.** Summarizes the results of a survey of the experts and Internet users about the problems in the Russian Arctic

**Keywords:** *Russian Arctic, management, research*

The future of Russia in the XXI century will largely be determined in such a strategically important reserve, which is the Russian Arctic today, with its rich natural resources, communication capabilities of the Northern Sea Route, kros polar and other routes, the growth of the perspectives in the Arctic tourism and the entire social and economic activity. However, the practical use of this resource potential is delayed due to various reasons. In an article published February 20, 2013 on the website of the Government of the Russian Federation Strategy of the Arctic zone of the Russian Federation and national security for the period up to 2020 [5] that the current state of social and economic development of the Russian Arctic is characterized by the following risks and threats:

a) *in the social sphere*:

- ✓ negative demographic trends in most of the subjects of the Russian Arctic, the outflow of labor (especially skilled) in the southern regions of Russia and abroad;
- ✓ mismatch network of the social service nature and dynamics of the settlement, including in education, health, culture, physical education and sport;
- ✓ the critical state of the housing and communal services, inadequate supply of clean drinking water;
- ✓ the lack of effective training, the imbalance between supply and demand of labor in the territorial and professionally (shortage of workers and engineering professions and a surplus of unneeded specialists, as well as people with no vocational training);
- ✓ the poor quality of life of Indigenous Peoples of the North, Siberia and Far East, living in the Russian Arctic;

b) *in the economic sphere*:

- ✓ The lack of the Russian modern equipment and technologies for exploration and the development of offshore hydrocarbon fields in the Arctic;
- ✓ the depreciation of fixed assets, particularly transport, industrial and energy infrastructure;
- ✓ the underdevelopment of basic transport infrastructure, its marine and continental components, aging icebreaker fleet, lack of small aircraft;

- ✓ the high energy consumption and low efficiency of extraction of natural resources, the costs of production in the northern no effective compensatory mechanisms, low productivity;
- ✓ the imbalance in the economic development between the individual pri arctic territories and regions, a significant gap between the leading and depressed areas in terms of development;
- ✓ the insufficient development of navigation-hydrographic and hydro-meteorological support of navigation;
- ✓ the lack of a comprehensive permanent space monitoring of the Arctic territories and water areas, dependence on foreign sources of funds and information management of all activities in the Arctic (including interaction with aircraft and vessels);
- ✓ Lack of modern information and telecommunication infrastructure that enables the provision of services to the population and economic entities across the Russian Arctic;
- ✓ undeveloped energy system, as well as the irrational structure of generating capacity, high cost of electricity generation and transportation;

c) in the field of the science and technology are the scarce technical resources and the technological capabilities to the study, development and use of the Arctic areas and resources, lack of readiness for the transition to the innovative development of the Russian Arctic;

d) in the sphere of nature and the environment stands increase technological and human impact on the environment with increased probability of reaching its limits in some areas adjacent to the Russian waters of the Arctic Ocean, as well as in certain regions of the Russian Arctic, characterized by the presence of extremely vulnerable areas, potential sources contamination, high levels of accumulated environmental damage.

e) in the sphere of science and technology are scarce technical resources and technological capabilities to the research, development and the use of the Arctic areas and resources, lack of readiness for the transition to innovative development of the Russian Arctic;

f) *in the sphere of using* Natural Resources and Environmental Protection released an increase of technogenic and anthropogenic impact on the environment with increased probability of reaching its limits in some areas adjacent to the Russian waters of the Arctic Ocean, as well as in certain regions of the Russian Arctic, characterized by the presence of extremely vulnerable areas, potential sources of contamination, a high level of accumulated environmental damage.

The strategy of the Russian Arctic strategy actually aims at minimizing the risks mentioned above, the complex socio-economic development, improving governance and the implementation of a specific designation in this most important document of long-term measures. Unfortunately, the strategic decision-making to their implementation in the Arctic there is a considerable distance. And not the fact that all decisions will be made in 2020, especially as the vector of the Russian state policy is increasingly shifting to the East, and Asia.

Trying to assess the actual folding situation in the Russian Arctic, the electronic scientific journal 'The Arctic and North' conducted an expert survey (December 2012 – February 2013),

code-named ‘Black holes are the Arctic and its future’. The aim was to study the public opinion, to attract the attention of the government and business to the existing problems of the Russian Arctic. The editors thank all those who took part in the survey. Below are the answers to the open questions in the questionnaire and the analysis of the responses of Internet users, published on the website ‘Arctic info’, and the content of the interview with the governor of the Nenets Autonomous District I. Fedorov, which addresses the current problems of the current state of the Russian Arctic.

In the Arkhangelsk region, local experts, mostly working in the business, estimated the overall state of the affairs in the Russian Arctic as negative. The main problems were: 1) low income, poverty and misery of the general population; 2) the bureaucratization of control of our lives, and is spreading in the Arctic; 3) corruption, penetrating into the economy and policy, management, housing, education, health care; 4) the state of the modern transport infrastructure and communications (roads, all types of the transport, ports, railway stations, the technique used). It was noted that the federal structure of power and control (government, ministries, etc.) are almost systematic and effective work in the Russian Arctic and the northern Russia with regard to their specificity. Of course, this is a subjective opinion, but many experts believe that the main problems of the life in the Russian Arctic should decide the president and the government of the Russian Federation, in the regions - governors, not municipalities or by the people themselves. Municipal education of urban and rural areas of the Russian Arctic today just really do not have the budget and other resources to carry out their law № 131-FL ‘On General Principles of Local Self-Government in the Russian Federation’ dated October 6, 2003, as amended in 2004–2012 years. Function for 38 local development in full.

As the black hole experts noted, first of all, the conflict between economy and ecology, plundering of the resources. This is no accident. According to Russian experts, but there are 100 in the Russian Arctic environmental hot spots, including 23 district impacted as result of the negative impact of pollution on the natural and cultural environment, all the spheres of societies, ecosystems, threatening the life of the people [4].

Manifested obvious pessimism about the perspectives for the development of the Russian Arctic. For the suggestions and projects offered: the organization of the new jobs, supporting small and medium enterprises in the north, the development of environmentally friendly production, transportation, ports, do not treat the federal government to ‘disregard for the North’, and the governor of the Arkhangelsk region more professional management of the region. Unanimous

opinion was the location of the administration of SMP in Archangelsk and its positioning as the capital of the Russian Arctic.

As for the Nenets Autonomous District, here as an adequate analysis of the expert evaluation of the situation using text RIA Novosti interview with the governor of the NAO Fedorov, in which it was drawing attention to the issues. Analyzing the results of 2012, the Governor focused on major infrastructure projects, the NAO [2]. 98 % of organizations in the economy NAO focused on the extraction of hydrocarbons. According to the estimates of leading experts, the resource potential of the NAO should provide for continued growth in 2027 annual production to 37 million tones per year, currently produces 15 million tones of oil per year. Among the major projects identified development of the Timan-Pechora and the fields in the Barents, Pechora and Kara Seas, the formation of offshore infrastructure based Prirazlomnoye field, development of transport and logistics infrastructure, node 'Varandey terminal' with the capacity to 12 million tonnes a year. In addition, in Naryanmar earns international airport.

The implementation of these projects in general gives the country a hydrocarbon independence, considerable finances in the form of tax on mineral extraction tax (MET). And what gives it to the Nenets district? After all, the growth of oil and gas budget of NAO wins nothing.

Answering on this question RIA Novosti, the governor of the NAO said that the Treasury District receives lucrative royalties from Kharyaginskiy PSA. 'Only the first ten months of 2012 HSRP in the budget of the county was transferred to 5.6 billion rubles, which is half of the revenue side of our budget. The budget of the NAO is formed mainly due to the property tax, and we are making efforts to ensure that companies mining companies operating in the district were recorded here. I mentioned above the platform 'Prirazlomnaya', which has attributed to our seaport. Exact figures cannot name yet, but, according to preliminary data, the property tax on it will be several hundred million rubles to the county coffers every year' [2].

In the NAO successfully developed the social partnership with the operators, are the socio-economic agreements, in line with oil building in Naryan-Mar and towns various facilities - schools, kindergartens. 'The closest example: burned house in the village Telviska. We agreed with OAO 'Pechora-oil' and LLC 'Kolvinskoye', included in the oil company 'Alliance' that they will fund the construction of 24-apartment house in the village, which in 2013 is to be built'.

The problem is, how willing mining companies for such cooperation are. After all, their business – is to produce hydro carbons, and no one can force oil companies to build social facilities (RIA News).

I. Fedorov said that ‘someone talks are easier with someone difficult... But in the end, all of us agree that there is a social responsibility for the people on the indigenous territory of which they are working and producing oil. It is from such cooperation has grown a project that will raise the county’s population lives to a new level. It is a project of gasification of the NAO, which has gained quite a concrete shape in 2012 in the district are more than 520 billion cubic meters. Meters of gas, but the Nenets settlements have not gasified. The region has no gas transportation infrastructure; the gas is used only for the city of Naryan-Mar and nearby villages Searchers, Red and Telviska. The governor of the NAO in November 2012 signed a general scheme for gasification of settlements Nenets Autonomous District, prepared by the specialists of ‘Gazprom’ [2].

Gazprom on their own resources and in-house developed projects and plans to implement it in the next few years. Villages and up the Pechora get gas, go into the past annual northern delivery, consuming a lot of energy and resources, environmental benefits, not to mention the economics of power generation on gas. Since his arrival, the village will not only be more comfortable to live, but also to develop. At a meeting with the management of Gazprom to consider and to build on the NAO condensate processing plant to develop gasoline fractions. This will deliver to remote areas of the region's own production of fuel, the cost of which, of course, will be lower than the current one. As you know, today, the NAO no processing facility, and within northern delivery to the villages of the region delivered gasoline and diesel fuel. This large-scale project was joined company ‘Pechora LNG’, whose plant construction project in Indiga for liquefied natural gas in 2012, passed the stage of pre-investment studies. Experts have concluded that the production, liquefaction and further transportation of natural gas from the NAO cost effective. The resource base for future LNG plant will Kumzhinskoye Korovinskoe and gas condensate fields. And the company is willing to consider gasification of villages along the route of the gas pipeline from the fields to the loading terminal on the Barents Sea [2]. Thus, not only solved the problem of gasification of settlements NAO, but also reduces the northern delivery, develops a completely different socio-economic situation.

In the NAO begins to solve another strategically important issue for the region: the revival of an abandoned in the 90’s. The twentieth century transport infrastructure, an example of which was the settlement Amderma. ‘The fate of Amderma deserves mention – said Fedorov. This is a – sign the settlement in the history of the district. Results of the Marine Board, a Security Council meeting, numerous letters and appeals to federal departments and agencies, my personal meetings with leaders of various levels yielded results: the Amderma Amderma airport and noticed the federal government. In January 2012 there was established the federal government enterprise

that has allowed state funds to repair the runway, to buy equipment, pay salaries to the staff. There is an idea to build in Amderma rescue emergencies center to eliminate possible emergencies during field development on the Arctic shelf, as well as for maintenance of the Northern Sea Route. Today the nearest rescue center of the NSR is in Murmansk. The lack of reliable base for emergency response at sea in the Arctic during the activation of work on the shelf makes really consider how we are going to save the people, if the need arises. In addition, during a meeting with Prime Minister Dmitry Medvedev, I drew his attention to the located 20 km from Amderma in alignment Kara Strait Morozova deep bay, where it can be established polar strategic port on the Northern Sea Route. He will be able to take large vessels offer shelter transit of vessels coming in difficult meteorological conditions, serve as a place for parking and repairing. Recall that in the strategy of the Ministry of Transport of Russia until 2030 and JSC 'Russian Railways' plans to build railway Vorkuta – Ust-Kara – Amderma. That is, Amderma great future. Our settlements on the coast – a kind of frontier posts, because the entire coastline of the Nenets Autonomous District – the state border. The people living there are in fact advocates borders of our country. And for them to be appropriate conditions' [2].

Complex infrastructure projects will ultimately promote the quality of life of people living in the district. There are resources and political will to address the urgent and can be said for a long time already overripe problems of indigenous people. 'As for the support of traditional farming, the NAO management pays great attention to the social support of the workers of the tundra, and the preservation and the development of national culture and language of the Nenets. To make the Nenets language official status in law drafted legislation defining the rights Nenets language and its possible use in the official documents and place names in the national autonomy. The region has adopted and effectively works long-term program to develop the agricultural sector in general and the reindeer industry in particular. By the number of reindeer district ranks fourth among 18 subjects of the Russian Federation, practicing reindeer herding. Today I am proud to say our progress in the development of this industry', – said the governor NAO – I. Fedorov.

In the sphere of managing the territory, to the Governor of the NAO, there is nothing better and more effective than an active community of the executive and legislative branches of government. Their close cooperation provides the basis for real progress. 'But generally speaking, if we can finish the beginnings in 2012, in a fairly short time Nenets autonomous district will not know' [2]. For the optimistic conclusion Fedorov has a well-founded, sound policies and good governance, to improve the quality of life of the Arctic territory.

The opinions of the Moscow experts and their answers to the open questionnaire to the journal 'Arctic and North'. B. Blashenkova, the development director of consulting company 'Specifics', candidate of political sciences, expert on branding areas, author of 'Brand areas: the creation and promotion. As in Russia' (2011), for example, in his response said that Murmansk promoted more than the Archangel, and explained why she thinks so: 'Unfortunately, to the vast majority of the survey questions I cannot answer because I do not know the situation in the Arctic and in the Arkhangelsk region. We usually respond to the questions, if there are numbers, facts, and a small but their own research, and judging from the position of 'do not know, but I say', do not want to. As for the 'Arctic issues', then I think it is interesting and productive. But for me personally, is more related to the Arctic Murmansk. Perhaps because there several times visited the city is above the Arctic Circle, heard of large projects, etc. I think Murmansk promoted more about him more information in federal mass media, including the fact that in terms of staff, the companies belonging to the federal FIGs and these companies free write on economic topics. A ready flow of information, which is mentioned in the context of Murmansk. Arkhangelsk yet rarely mentioned. Archangel in my mind – is the Russian North, Lomonosov, the discoverers, shipbuilding, timber, fish and water. Such stereotypes.

Now about the brand. How are the objectives aimed at the promotion of Arkhangelsk to the Arctic, it is not clear to me (at least for now). Still, the brand should solve the problems of the city. But I suppose that does not have any information. It's about moving or opening facilities, attracting tourists and the implementation of specific projects arctic? That is what goals sets the city in the context of the Arctic theme, personally, I do not know. It is desirable to define these goals in terms of quantity. This increase in the number of the Arctic expeditions through Arkhangelsk, exploration, trade, etc. What is it? Which target groups should go calculation – oil / gas companies, scientists, actually northerners? I'm not clear, you need much more information – expert interviews. This does not mean that I do not like the application of Arkhangelsk – the capital of the Russian Arctic. This means that I'm not ready to assess, as a lack of information, including the goals and objectives. For example, I do not know where and how the boundaries of the Russian Arctic and whether it is generally allocate the Russian Arctic. It might be better to take a broader?'.

Argumented answers and suggestions on the specific Arctic project we received from a renowned expert A. Khramchikhin, deputy director of the Institute for Military Studies. He said: 'Summary of the general state of affairs today in the Russian Arctic – negative. Corruption, bureaucracy, lack of government leadership development strategy as a whole and for individual sectors are not exclusive Arctic issues, is the all-Russian problems. The main problems specifically Arc-

tic – climate and poor transportation infrastructure. But complaining about the climate seems pointless, since, first, the person only to a small extent, can influence it, and secondly, climate change is also a problem, sometimes much larger than its preservation, it was especially evident the example of the Arctic. Accordingly, the main problem is transport. It cannot be considered a 'monopoly' of the Arctic regions, but, nevertheless, here it appears much sharper than in the south of Siberia and the Far East, and, even more so than in European Russia. Her decision prevents just climate and vast distances. However, without the development of all major modes of transportation talk about the prospects of the Arctic is totally meaningless.

There are strong suspicions that the dramatic changes in the future will happen. Like today, will develop faster pace and Yamal-Nenets, and the rest, at best, will maintain the current level.

Objectively, the capital of the Russian Arctic should be Archangelsk. However, today the Murmansk had already 'stolen' the title. Archangelsk now need to take enough great efforts to change the situation. First of all, you need to appeal to history, and in this respect, we can use 'resource' Solovki (as they relate to the Arkhangelsk region). In addition, the necessary development projects, which would give an advantage over Murmansk Arkhangelsk. They can be developed only in the region.

Today, all of the ports of Arkhangelsk have the least chance to place the administration of the Northern Sea Route. Even the prospect of Tiksi better because it is located almost in the middle of the NSR. Archangelsk can win only if you offer a well-established project of placing the administration, and then be able to skillfully lobby in Moscow. Obviously, the entire infrastructure under this administration will have to build from scratch. Perhaps it is this could be the advantage of Arkhangelsk, the more so in regard to transport it easily accessible from the capital'.

Projects of A. A. Khramchikhin on the Arctic policy of the Russian state as follows:

1) Accommodation along the Arctic coast of the Arctic crews 5–7 arctic brigades (Kola Peninsula, the area of Arkhangelsk - Severodvinsk, Salekhard, Yamal, Norilsk Dudinka, Tiksi, Chukotka). Technically, the project has already voiced MO, but so far it itself does not know what I meant.
2) The moving of the base of the PKK CH SF from the Western Litsa – Yagelnaya – Gadzhievo in the Arkhangelsk region – Severodvinsk. Current deployment of this important strategic facility near the border looks very strange. Need to move it to the border, placing near the site of construction PKK CH and safe in terms of the deployment and patrolling the White Sea. Accordingly, in this area we need to strengthen air defense group, coastal defense and the deployment of at least one of the aforementioned Arctic brigades.

3) The Development of NSRs. It should be as convenient for commercial shipping (domestic and foreign) in the navigation, and in the economic terms. Apparently, a special law or even a series of laws on SMEs. Must take into account the sad experience of Transsib, all transit capacity which destroyed the complexity of customs procedures.
4) The construction of the railway along the Arctic coast, which would be a 'double' of the NSR. In the short term (up to 2030) through the use of already existing sites need to focus on the construction of the road Murmansk – Norilsk (Dudinka). Bring the road to Anadyr unlikely even by 2050, the more so in this way you need at least four drainage to the south (still unfinished Belkomur not even started a line from Norilsk to Krasnoyarsk and from Anadyr to Tiksi and Yakutsk). However, the construction of these roads is necessary. Of course, this is an extremely complex and too expensive project, but without all the talk about the development of the Arctic and the Far East is nothing more than demagoguery. Moreover, considerable efforts and tightened claims to the territory of the USA and China, as Russia more and more clearly to act as a 'dog on the hay' in the conditions of the increasing scarcity of resources.

In turn, my author's proposal concerns the art. 2 of the Federal Law 'On the Arctic zone of the Russian Federation' dated January 23, 2013 [3]. According to the article, in the Russian Arctic, in whole or in part from the position thalassocracy included in nine Russian regions bordering the coast of the Arctic seas: the Murmansk and Arkhangelsk regions, Nenets and Yamal-Nenets and Chukotka Autonomous District, Krasnoyarsk Territory, the Republic of Karelia (three MO) , the Republic of Komi (Vorkuta), the Republic of Sakha (Yakutia). Also: a) open and able to be open in the future of land and islands in the Arctic Ocean north of the coast of the Russian Federation to the North Pole; b) the internal waters and territorial sea of the Russian Federation; c) the exclusive economic zone and continental shelf of the Russian Federation within the sovereign rights and jurisdiction of the Russian Federation; d) the airspace above listed territories and waters.

The inventory of land, waters, continental shelf, air space of the Russian Arctic, in my opinion, not enough of the Northern Sea Route as a historical national transport communications in the wording of the Federal Law of the Russian Federation № 132-FL 'On Amendments to Certain Legislative Acts of the Russian Federation regarding state regulation of commercial navigation in the waters of the Northern sea Route' [6]. The concept of area is not used in the UN Convention on the Law of the Sea in 1982 is therefore very important to fix this legal concept in national law, given the fact that the passage of ships through the Northern Sea Route in addition to the usual route along the Russian coast and straits are also high-latitude routes beyond inland waters and the exclusive economic zone (EEZ). In this regard, I consider it necessary to add the following para-

graph in the draft of the Federal Law on the inclusion of the Russian Arctic: 'Article 2. e) of the Northern Sea Route as the historical national transport communication of Russia'.

During the survey we were interested in the opinion of all who live in Arkhangelsk, Severodninsk, Onega, Kem, Belomorsk Murmansk, Apatity, Naryan-Mar, Vorkuta, Cyktyvkare, Salekhard Dudinka, Norilsk, Tiksi, Yakutsk, Anadyr and other cities, municipal settlements Arkhangelsk and Murmansk regions, Nenets and Yamal-Nenets and Chukotka Autonomous District, Krasnoyarsk Territory, the Republic of Komi and Sakha (Yakutia), in Moscow, St. Petersburg and other Russian regions. Unfortunately, this problem has not been realized, as the survey is mainly attended by respondents in Arkhangelsk region and Moscow.

Apparently, this does not make sense to conduct a survey, using only the power of the Internet, as its users are actually already used to answer very short questions with respect to certain events immediately get an overall picture of the results of answers. As an example, the results of skid surveys of successful online 'Arctic info' on topical issues of the development of the Russian Arctic. [1]

*Where, in your opinion, should be located Administration of the Northern Sea Route?* Poll ended 12.02.2013, only 267 people voted. The answers were as follows:

| | | |
|---|---|---|
| 1 | The office of the administration should be in each sea - port of SMP (Tiksi, Pevek, Sabetta) | 37.82 % |
| 2 | In one of the biggest Sea ports in North Sea route, for example in Arkhangelsk | 35.58 % |
| 3 | In Saint -Petersburg, n the Sea capital of Russia | 13.85 % |
| 4 | In Moscow, where all federal agencies are | 12.73 % |

*Do you think it is justified by a 'general cleaning' in the Arctic?* Poll ended 11.15.2012, only 403 people voted.

| | | |
|---|---|---|
| 1 | Yes, its our duty and our mistakes | 67.24 % |
| 2 | Yes, we will need clean territories in the nearest future | 18.85 % |
| 3 | I don't see a necessity, nature will change it | 8.93 % |
| 4 | No, its too expensive | 4.96 % |

*Do you support the initiative to rename the Arctic Ocean in Russian?* Poll ended 06.09.2012, only 153 people voted.

| | | |
|---|---|---|
| 1 | This is not possible, the new name will not be accepted | 50.98 % |
| 2 | Yes, because it is our history | 31.37 % |
| 3 | No, it will cause a negative reaction in other countries | 17.64 % |

*Why Russia does needs frontier in the Arctic?* Poll ended 20.06.2012, only 133 people voted.

| | | |
|---|---|---|
| 1 | Border Protection | 60.15 % |
| 2 | Anti poaching | 28.57 % |
| 3 | Travel Aid | 11.27 % |

*Do we need to develop the Arctic*? The survey completed 01.06.2012, totally 243 voted.

| | | |
|---|---|---|
| 1 | Yes, because in the Arctic we have natural resources, which we need | 81.48 % |
| 2 | No, It is already developed | 12.34 % |
| 3 | No, do we really have anything for the development? | 6.17 % |

*How will influence the adoption of the law 'On the Arctic zone of the Russian Federation'in its development? Only 110 people voted.*

| | | |
|---|---|---|
| 1 | Depends of the effectiveness in the implementation | 35.45 % |
| 2 | The increase of the development | 28.19 % |
| 3 | No effect | 22.73 % |
| 4 | Slow down of the development of the Arctic territories | 13.64 % |

The greatest interest among the web users, who read news on the website 'Arctic info', was the issue of general cleaning in the Arctic (403 responses), in second place – is the question of the capital of the SMP (267 responses) and the third – the need to develop the Arctic (243 responses) . The least interest was the question of the impact of the law on the Russian Arctic to the development of the Arctic (110 responses), which can be explained not high enough level of awareness of the respondents on this bill and its importance to the Russian Arctic.

The general conclusion can be that during the analysis of public opinion polls best, apparently, to use the target audience of a competent, professionally concerned with issues of the Russian Arctic, well prepared for such surveys, knowing what was going on and ready to respond. This may be the participants of conferences, workshops, forums and other events, teachers and university students, researchers, managers, administrators, officials at the municipal, regional and federal levels, and the journalists who own information and writing in the arctic theme.

The possibilities of the Internet are more suitable for the interviews of overture type on the one – three concrete questions about the development of the Russian Arctic.

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*Reviewer – Verteshin Aleksey Ivanovich,*
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UDK 002

# POLYTHEMATIC INFORMATIONAL PRODUCTS FOR THE ARCTIC RESEARCH

***© Rykova*** *Valentina Viktorovna, senior employee of a scientific bibliography of the State Public Scientific and Technical Library of SB RAS. E-mail: onbryk@spal.nsc.ru*

**Abstract.** The article presents a description of the problem-oriented databases of the own generation SPSL for information support in the Arctic research

**Keywords:** *Arctic research, provision of information, problem-oriented database*

The Arctic, as a region of the special geo-strategic and economic interests playing an important role in maintaining the ecological balance of the planet, has attracted attention of the researchers of different disciplines. In recent years, a growing interest in the region for several reasons: the possibility of the development of hydrocarbon resources in the Arctic shelf, decreasing of the Arctic sea ice cover associated with global changes in the environment, the need to preserve indigenous people as bearers of adaptive mechanisms for sustainable development of the vast Arctic territories. Comprehensive study of the region is impossible without the proper information support.

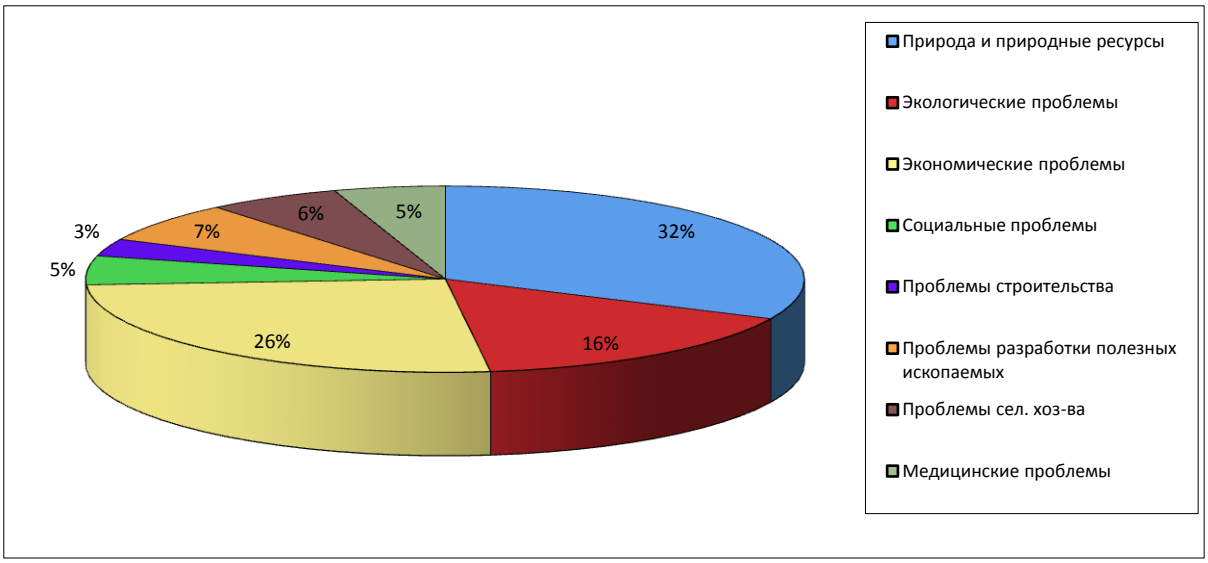
The department of the scientific bibliography State Public Scientific and Technical Library of the SB RAS (SPSL) provides information support to the research scientists and engineers. The library created complex bibliographic information that will assist in solving the problems of information security research, including bibliographies, problem-oriented databases, documentary arrays and their biblio-metric analysis on the specific areas of the research [1].

For more than 50 years of SPSL publishes current literature index ‘Problems of the North’, the frequency of which varies from 12 numbers (from 1968 to 1994). To six issues a year (from 1995 to the present). In the 90-ies with the introduction of computer technology in the field of library work bibliographies were prepared in an automatic way that is through the creation of bibliographic databases. Library generated by two research-oriented databases (POBD) to the support Arctic research – ‘Problems of the North’ and ‘Indigenous People’, including material from 1988 to the present. POBD volume at the beginning of 2013 amounted to 196 000 and 18 000 documents, respectively. Geographic scope to be taken into POBD quite extensive: the northern regions of Siberia, the Far East, the European North of Russia (Arkhangelsk, Murmansk region, the Republic of

Karelia and Komi) and the polar regions of the abroad North – Sweden, Finland, Norway, Canada, the United States (Alaska), Denmark (Greenland).

The databases are based on the legal deposit of the national literature, the only beneficiary in Siberia is SPSL and foreign literature, coming to the library for international book exchange and purchased currency institutes of the Russian Academy of Sciences, and the resources remotely. Data set includes a variety of types of documents: monographs, articles from periodicals and scientific journals, conference proceedings, dictionaries, reference books, textbooks, dissertation abstracts, reviews, guidelines, patents, maps, atlases, deposited manuscripts and reports. The search of the databases available on the keywords in the title, abstract or translation, authors, editors, and place of publication, subject headings, language, document type or a combination of the several parameters.

In POBD 'Problems of the North' questions reflected the history of the development of nature and natural resources north of Eurasia and North America, the features of their topography, climate, water, surface and underground ice, soil, flora and fauna, ecosystems, including materials on human intervention Environmental and conservation of the Arctic and sub-Arctic regions, and the biomedical and sanitary problems of the North. Database covers a wide range of the socio-economic problems of the Far North: natural resources, the development of productive forces, the settlement system, human resources, and quality of the life. A special place in this database occupies materials on the various aspects of the development of the northern peoples. Issues related to the northern equipment and technology are reflected in the subject heading 'Provision of the production equipment and technology for the northern', 'Problems in the construction of the North', 'Problems of the development of the mineral resources in the North', as well as a set of problems related to the transport development of the Arctic regions. In addition to the regional activities included in the database without specifying the date of the study area as they relate to the study of permafrost and operational issues associated with it, as well as adaptation to harsh environmental conditions. Polythematic DB structure 'Problems of the North' is shown in fig. 1.



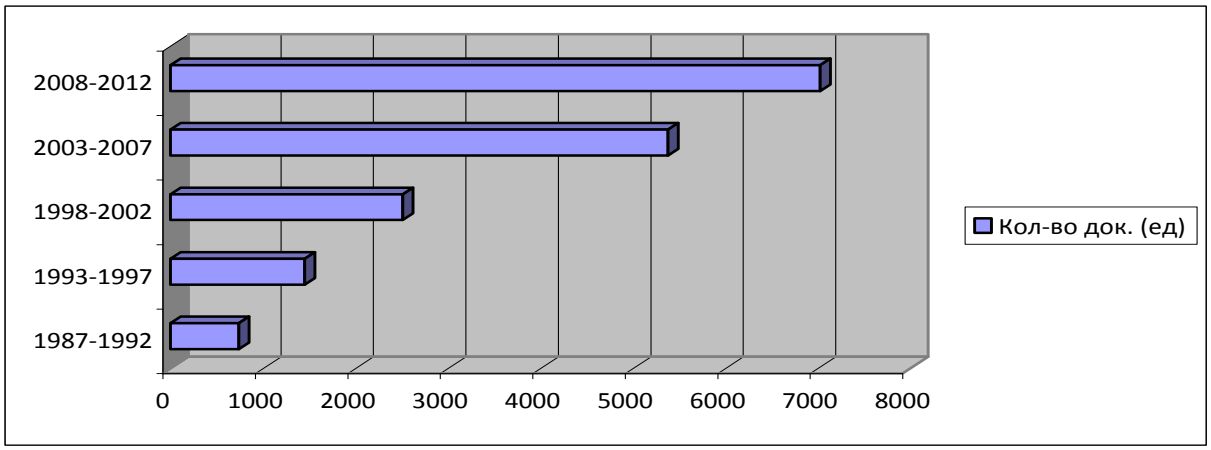

Pic. 1Thematical structure POBD 'Problems of the North'

In the database 'Problems of the North', the issues of the natural and environmental and socio-economic blocks are almost equal shares. As can be seen from the chart, the natural components of the complex (topography, minerals, climate, water, permafrost, soil, flora and fauna, landscape) is dedicated to a third of the work PD (32 %), 16 % of the publications refer to the section 'Environmental Challenges North', which together form almost half of the DP. In natural ecological unit fills most sections were 'Animal World' – 23 800, 'Flora' – 17 100, 'Water' – 18 200, 'Minerals' – 19 700 documents. In the socio-economic bloc of more than 50 % DP, information in sections dispersed unevenly. Publications related to the category 'Problems in the construction of the North', 'Biomedical and sanitation problems of the North', 'Social development of the North', 'Problems of Agriculture of the North' include from 3 to 7 % of the total POBD at the while the fourth part of the materials included in the database section 'Economic Problems of the North'.

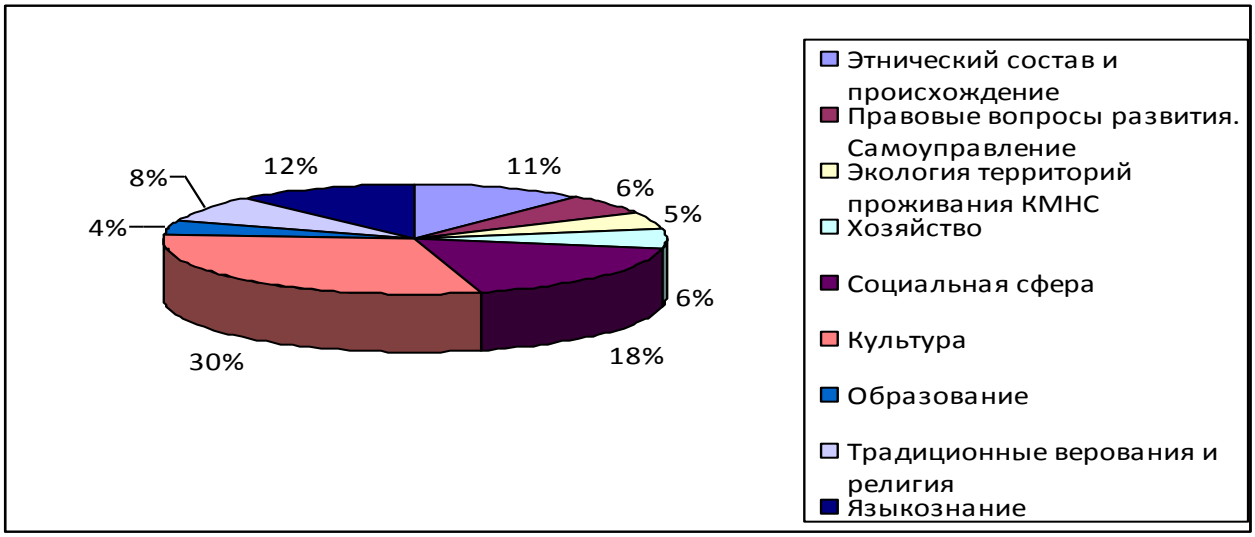
POBD 'Indigenous People' was created in 2009 to ensure that the information needs of the scientists and engineers who study a broad range of issues about the indigenous people of the North and who develops the guidelines and programs to address them. Of particular interest to this line of the research is manifest in the last decade, as evidenced by the rapid growth of information file database (pic. 2), which is structured as follows (see pic. 3):

1. General Questions.
2. Ethnic Composition and Origin.
3. Legal framework for the development. Self-development and Local Government.
4. Ecological situation of the territory and ratio using of the natural resources of these territories.
   4.1. Negative impact on the indigenous territories.
   4.2. Traditional Land using.
5. Economy.

5.1. Traditional economy, crafts.
5.2. The introduction new methods of land using.
6. Social Sphere.
6.1. Demographical Situation.
6.2. Level of Life.
6.3. Medical-Biological Problems.
7. Culture.
8. Education.
9. Linguistics.
10. Religion.




Pic. 2. Dinamic of the Informational mass POBD 'Indigenous people of the North'




Pic. 3. Thematical structure POBD 'Indigenous people of the North'

As you can see from the diagram, most of the materials are devoted to the culture of the indigenous people (30 %), a significant proportion of documents (18 %) of the publications on the social studies of northern people, adequately represented the sections 'The ethnic composition and origin' and 'Linguistics'. Less than other sections filled with 'Legal basis for development. Self-

development and local self-government', 'Ecology living indigenous territories', 'Education', 'farm'. Obviously, professionals should pay particular attention to these aspects of the research.

In addition to the above information on the database is presented in the Arctic POBD the current replenishment 'and natural resources of Siberia and the Far East', 'Quaternary in Siberia and the Far East', 'Human Ecology in Siberia and the Far East', and the historical database 'biodiversity of the Northern Eurasia', 'Protection of the environment and ecology of the Western Siberia'. All databases are freely available for the users of the Internet at the library www.spsl.nsc.ru (option 'Resources and Services' → 'electronic catalogs and databases' → 'Bibliographic Database').

Informational support for the research in the department of the scientific bibliography SPSL is not limited to the creation of problem-oriented databases. Improving information and bibliographic services of the scientists and experts, accompanied by a documentary screening arrays and logical-statistical (citation) flow analysis papers on selected current issues, and the composition and structure of the documentary flow regarded as a model of development of a particular field of science [2]. Bibliometric study POBD 'Indigenous People' helped reaffirm the relevance of the above problems, determine the degree of elaboration of selected topics, to get data on the quantitative and qualitative structure of documentary arrays to identify the most productive journals and the research institutions, as well as authors with the highest publication activity [3]. Conduct bibliometric analysis of large volume database – the process is very labor intensive, so isolated and analyzed documentary information flow in the certain areas of the research, among them: 'The problems of ecology and environmental protection in the areas of oil and gas in Western Siberia', 'The carbon cycle in the northern ecosystems', 'Mother and Child Health in the North', 'Water pollution of the northern territories', 'Glaciers and snow cover in the Arctic region', 'Wildness protection in the North', 'Features of the construction of engineering structures in permafrost' [4–10] etc.

Thus, informational products generated GNPTB SB RAS on the study of the Arctic, are unique in the depth retrospectives, thematic breadth and geographic coverage. Improving information management research programs to the research of the Far North will be conducted in the following areas:

- the formation of a database with a gradual increase in their retrospective arrays and using the resources of the remote access;
- Create new POBD on priority research areas at the request of the scientists and experts.

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# SUMMARY

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## ABSTRACTS, KEYWORDS

### Regionology of Arctic and North: management, economy, society, culture

***© Lukin Y. F.*** **'Trouble spots' of the Russian Arctic**

**Abstrat.** The research of 'trouble spots' in the Russian Arctic in the sphere of Ecology, Management and Social life

**Keywords:** *'trouble spots', Russian Arctic, ecology, management, society*

***© Nazukina M. V.*** **Images of the Russian Arctic in the official dispute: the research for the explanation for the macro regional identity**

**Abstract.** This article analyzes the external view of the problem of the socio-cultural community of the Arctic territories of Russia and macro perspectives of forming a single regional identity of the Arctic. Analyzes the key meanings of the Arctic identities in the official discourse

**Keywords:** *identity, macro regional identity, Arctic macro region, official dispute*

### Geopolitics

***© Ermolaev T. S.*** **Eastern vector of politics in Russia: potential and problems of the realization**

**Abstract.** The article discusses the need for transition from an extensive to an intensive strategy of modernization processes in the Far Eastern regions as the key to their success. The 'new' industrialization of Yakutia should focus on energy saving technologies, the use of local labor resources and improving the quality of human life

**Keywords:** *geopolitics, integration, challenges industrialization, natural resources, extensity, intensity*

### Sociological sciences

***© Styrov M. M.*** **Private expedentires on social services in the Northern regions of Russia**

**Abstract.** The article describes the main fea-tures and trends in private financing of the social expenditures in the Russian North. The estimation of the perspectives for the change in the structure of financing

**Keywords:** *health policy, culture, education, paid services, weather, prediction,region, North, social policy, social spending, finance*

***© Fedulova A. B., Rybak E. V.*** **Family values and social education of young parents in the modern society**

**Abstract.** The article raises the question of the transformation of family values in the society at risk. The approaches to the understanding of family values. Focused on the field of parenting as the most promising area of family and society. Formulated the need for the social education of the family as a mechanism for the internal reorientation of values of the modern society

**Keywords:** *family values, a young family, parenting, social, education and social development,* aksicreation

***© Uliyanovsky V. I.*** **The student of NArFU: vector of changes**

**Abstract.** The article dedicates to the problems of the sociological support of educational innovation

**Keywords:** *federal university, Arctic, North, sociology of education*

***© Lukina A. A., Tarasova I. I.*** **Innovation in education by the eyes of the students of NArFU: problems of the transition period**

**Abstract.** The article tries to compare the ideal vision of NArFU and reality, marked by the student audience

**Keywords:** *federal university, modernization, student community, public opinion, innovation*

***© Henerina O. A., Karpova N. A.*** **Professional self determination of the students of NArFU named after M. V. Lomonosov**

**Abstract.** The article analyzes the professional self-determination of the students. Special attention is paid to the history and the development of NArFU named after M. V. Lomonosov formed on the basis of the Arkhangelsk State Technical University. Mentioned work on different aspects of the professional representation

**Keywords:** *professional representation, professional self, professional expectations*

## Historical sciences

***© Konstantinov A. S.*** **Transformation changes in the territorial-resedental structure of the Arkhangelsk region in 1939–2010**

**Abstract.** The article represents the results of a research of transformational changes that have occurred in the territorial-residential structure in the rural areas of the Arkhangelsk region in the period between censuses, 1939–2010

**Keywords:** *territorial settlement structure of the region, population, transformational change*

## Informational recources

***© Lukin Y. F.*** **Russian Arctic by the experts eyes and users of the Internet**

**Abstract.** Summarizes the results of a survey of the experts and Internet users about the problems in the Russian Arctic

**Keywords:** *Russian Arctic, management, research*

***© Rykova V. V.*** **Polythematic informational products for the Arctic research**

**Abstract.** The article presents a description of the problem-oriented databases of the own generation SPSL for information support in the Arctic research

**Keywords:** *Arctic research, provision of information, problem-oriented database*

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