On Spatial Development of the Territories of Arctic Zone of the Republic of Sakha (Yakutia)

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Abstract. This article substantiates necessity of implementation of a strategy of multi-purpose progress in development of territories of the Arctic zone of the Republic of Sakha (Yakutia), taking into account harsh natural and climatic conditions. An attempt is made to rank socio-economic goals, and priorities of the economic development of uluses of the Arctic zone are identified. A lot of attention is paid to problems of rational nature management and revival of trading stations. An issue of legislative approval of a procedure for financing of traditional branches of economic management of indigenous peoples of the North, especially northern reindeer breeding, aimed at their preservation, as a way of life and employment of the peoples of the North. The key mechanism of state support is identified as the elimination of administrative barriers by reducing state institutions that oversee the industry, accelerated consideration and harmonization of projects related to the development of traditional industries, eliminating contradictions in judicial practice that creates additional risks in the sphere of financial and economic activity. The need to maintain state support at the same level as today, and the result of the absence of any changes in the part of state regulation.

1. Feature of the article:
• The Arctic zone is a zone of extreme, discomfitting conditions for socio-economic development;
  • Prospects for the socio-economic development of the Northern Territories and rational nature management have always been based on such principles as: the preservation of historically established traditional bases for the development of northern territories; the development of settlements as a single socio-economic, territorial, natural and cultural-historical complex,
  • Based on the accumulated experience of state management, executive authorities and municipal entities need to work together to develop proposals on issues of credit and financial and tax policy, logistics, related to the northern state policy, as well as targeted control over the timing of the transfer of targeted funds for purpose and their use.
• The main industry of the Arctic, along with others, is fishing, the state of which is deteriorating year after year, and its inertial development leads to an aggravation of existing problems.
• Maintaining state support at the same level as today will lead to a gradual reduction in catch and predominance in processing of imported products, and in light of low volumes of catch, but greater demand for products will reduce the percentage of production of local raw materials, which will contribute to deterioration of the industry, employment in the field, increasing the outflow of youth from the northern and arctic regions (uluses).

2. Methodological aspects of ranking of socio-economic goals

The Arctic zone of the Republic of Sakha (Yakutia) is represented by 12 uluses with a total area of more than 1.5 million km², which is about 50% of the territory of the Republic, where 68 thousand people live or more than 17.1% of the entire Arctic zone of the Russian Federation (about 9 million km²), where there are 2.5 million people.

A geographic position along a coast of the Arctic Ocean, the severe natural and climatic conditions, low transport accessibility and economic development of the Arctic uluses of Yakutia cause extreme discomfort of socio-economic development, where a concept of single-purpose economic development of territories was previously used - the development of natural resources to cover needs of a single national-economic complex of the country.

Now and in the long term, it is necessary to implement the strategy of multi-purpose development. The following rankings of socio-economic goals can be made: geopolitical, social and economic.

The geopolitical goals include: ensuring national security in the water area and on land of the Arctic zone, personal safety and security of the population living here; complex scientific research and active management of development of territories; expanded reproduction of natural resources and environmental protection; effective participation in interregional and international division of labor; ensuring integration of the Republic of Sakha (Yakutia) into Russian and global economic spaces.

At the same time, the social goals have priority importance:

✓ a significant increase in a level and quality of life of the entire population on the basis of sustainable socio-economic development of the uluses of the Arctic zone;

✓ a radical improvement of the social and economic situation, the improvement of the quality of life and strengthening of the social security of the indigenous small-numbered peoples of the Far North, activation of their original, cultural and labor activities in the current conditions of the socio-economic system;

✓ attraction from other regions of labor resources and securing them for a longer period (not less than 10-15 years) of work. The gradual increase in the number of permanent residents.

Achieving the social goals is possible as a result of realization of the economic goals:

✓ the sustainable and effective development of the economy of the uluses on the basis of modernization and innovative growth of production;

✓ the rational subsoil and nature management, wider use of the natural resource potential of the Arctic zone;

✓ ensuring employment and self-employment of the small-numbered peoples of the Far North in national households and tribal communities, in business in the traditional and market sectors of the economy;

✓ the increase of transport accessibility and economic development of the Arctic territories, a rise of their population in the zones of priority economic growth and compact residence of the small-numbered peoples of the Far North.

1. This article uses materials of the working group under scientific supervision of the Doctor of Economic Sciences, Professor, Director of the Scientific-Research Institute of Regional Economy of the North of the North-Eastern Federal University [Egorov E.G.] and coordination of the project by Doctor of Economic Sciences, Professor Tarasov M.E. "Scientific recommendations on elaboration of high priority measures for socio-economic development of uluses of the Republic of Sakha (Yakutia)". Yakutsk, 2012.
But here we must keep in mind that under the conditions of the Arctic zone, general principles of the integrated development of natural resources, an areal location of productive forces, the continuous development of the territories and their population are not yet acceptable.

To the socio-economic development of the uluses of the Arctic zone, it is more expedient and effective to use a differentiated approach: the selective development of natural resources, the focal and zonal development of the economy, the compact residence of the small-numbered peoples of the North. The particular importance is acquired by the principles of rational nature management and ecologization of the economy, every kind of saving of material, financial and labor costs, interchangeability of resources and the maximum saving of living labor instead of the increased costs of materialized one, i.e. the principle of minimum of labor resources and population size.

To achieve the social goals, there are the priorities: a social policy; the development of human potential, housing and communal services; ensuring the full employment and growth of real money incomes of the population. The important specific priorities are: the sustainable social development of the small-numbered peoples of the North, the modernization of nomadic and semi-nomadic ways of their life activity, the preservation of cultural identity and unique practice of economy.

The priorities of the economic development of the uluses of the Arctic zone are: high priority creation of energy and transport infrastructure; the accelerated development of industry branches for extraction of diamonds, gold, tin, niobium and coal; the sustainable traditional nature management and growth of the agro-industrial complex economics; formation of points and zones of advanced economic growth on the basis of introduction of innovative technologies and methods of organization of the Arctic economy.

Under the conditions of the Arctic zone, along with usual forms and methods of the organization of production, labor and life activity, the special methods should be used. These include:

- the formation of labor resources through the system of organizational recruitment of specialists and worker cadres, a public call-up for the working youth, which were effectively applied in the Soviet era;
- the expeditionary, shift and seasonal organization of work of geologists, builders and other categories of production personnel of economic entities;
- the creation of support rear bases of construction, logistics and food supply, as well as training and professional development of worker cadres and specialists in the southern regions of the Republic of Sakha (Yakutia), in the regions of Eastern Siberia and the Far East.

Of course, to take into account both positive and negative lessons (methods) of the economic development of the Arctic territories, it is necessary to examine historical experience of creation and operation of the Northern Sea Route, Tiksi and Zeleny Mys seaports, Kular gold-mining district, Deputatsky mining and processing enterprise and Zyryansky coal mine.

Prospects of the socio-economic development of the Northern Territories and rational nature management have always been based on such principles as: conservation of the historically established traditional bases of development of the Northern territories; the development of settlements as the single socio-economic, territorial, natural and cultural-historical complex performing production, socio-demographic, cultural, environmental and recreational functions; the overcoming of isolation of the Arctic uluses on the basis of expansion and deepening of relations with central cities of the Republic, the integration of rural areas into the macroeconomic system through the development of intereconomic links, the development of road communications, telephone and other forms of intercommunications, etc.; interaction of state socio-economic programs with measures of agricultural and food policy in the near future, for example, till 2025.
3. On improvement of system of rational resettlement of northern rural people

Under the very extreme, severe natural climatic and uncomfortable conditions of life in the Arctic, cattle breeding, horse raising, reindeer husbandry, hunting and fishing are conducted. A distance from the settlements to a regional center is on average 200 km with the worst transport infrastructure.

And in these circumstances the most important task of the further effective development of the Northern settlements under the conditions of a municipal reform is the improvement of the rational resettlement of rural dwellers, which covers: the development of all Northern settlements, regardless of a type and population, the creation of a favorable environment, selection of "base" settlements acting as the centers of service of a group of residential areas, provision of an interconnection of the Northern settlements between themselves and the centers of the districts (the uluses), by overcoming the isolation of the rural settlements in the long term.

Therein the active construction of the interdistrict ulus roads are needed. The foreign and domestic experience of the construction and operation of motor roads on permafrost in tundra and forest-tundra is available. To solve this problem associated with the construction of land year-round transport communications, there is the need for Heads of the Arctic regional and municipal formations to form a Fund of the Arctic ulus by joint efforts, with a contribution of 2-3% from district budgets. Moreover, the Northern Arctic regions (the uluses) receive grants, subsidies and subventions for the zones of the location of the Northern settlements. For example,

1) the reindeer breeding and trade zone, including Zhigansky, Allaikhovsky and Nizhnekolymsky uluses;
2) the reindeer breeding, trade and industrial zone, including Anabarsky, Olenyoksky, Bulunsky and Ust-Yansky uluses;
3) the livestock, reindeer breeding and trade zone, including Abyysky, Even-Bytantaysky and Srednekolymsky uluses;
4) the livestock, reindeer breeding and trade zone with local agriculture, including Momsky and Verkhneolomsky uluses.

For emergence of the organizations, which are the base of the northern settlements, equalizing the levels of subsidization between the uluses and ensuring transparency of financing, it is necessary to legislatively approve the procedure for funding of the traditional branches of the economic management of the Indigenous peoples of the North. And to find alternative sources of energy and to maximally reduce the whole complex of costs associated with the energy supply of the settlements, it is necessary to transfer their management to one entity. It should be taken into account that intensive disposal of fixed assets from an economic turnover of the northern enterprises (the organizations) and a reduction of biological resources lead to the fact that there will soon be nothing to plan at the level of local self-government. To do this in the coming years, it is necessary to clarify an allocation of the state subsidies for the Arctic uluses, to choose proposals on the issues of credit, financial and tax policy, material and technical supply, related to the northern state policy, and also to establish targeted control over time frames of a transfer of allocated funds for the specified purpose and their use.

On the other hand, on the whole such an approach facilitates the Government of the Republic of Sakha (Yakutia) to correct the formation of the local budgets of settlements by means of equalizing the socio-economic development of settlements in the unequal economic conditions and through state regulation, i.e. the increase of the subsidies and subventions in the zones engaged in the agricultural production and traditional northern branches of agriculture. Since in many rural settlements of the northern uluses, it is precisely these traditional northern branches of economic management that are the basis of the practice and socio-economic situation of the local indigenous population.

Today, goal-oriented implementation of training, retraining and placement of the local indigenous personnel in the managerial, national and regional policy in accordance with the needs of the municipal formations of the northern (Arctic) districts (uluses) is more than ever an acute

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2 See Collection of Abstracts: the Arctic - prospects of sustainable development. Resolution. International scientific-practical conference. 26-28 November 2014, Yakutsk, 84 p.
problem. For this, it is necessary to create all conditions for the revival and development of national and nomadic schools, upbringing and education in their native language. At the same time, it is necessary to help those wishing to learn the languages of Sakha and the small-numbered peoples of the North who inhabit these territories. The provision of young specialists with all conditions of life support and vital activity remains urgent. Since the current socio-economic situation of the northern villages and settlements on the whole is characterized by a low standard of living of the population and aggravation of the demographic situation. The sizes of the incomes are rather modest in relation to established prices for adequate nutrition and comfortable living of a human in such severe conditions of the North. And in these conditions, securing the skilled workers and the improvement of working conditions are simply necessary.

Against the backdrop of the low level of the provision of food, fuel and energy resources, the undeveloped service sector, the population is discontented with the budgetary supply of their settlement. At the same time, the stable provision of consumer goods to the population of the Arctic regions is possible with the timely financing of early delivery of food in full, taking into account the extremely short terms, and adoption of the unified system of the state support of the provision of consumer goods to the population and institutions of a national sphere. Compensation of transportation costs for inter- and intradistrict food supplies will help to equalize imbalances that arise with the delivery of goods and provision of food to the population through the allocations of the funds to the budget of the uluses, according to the norms determined depending on the number of people living in the region.

From our point of view, it would be desirable to revive all forms of trading stations (cooperative relations) for the modern organization of purchase, storage, processing and sale of the reindeer breeding and trade products, as well as the effective provision of commodity exchange between the populations of the northern settlements and structural subdivisions of the trading station system. Its revival needs the state support.

The time is now to find the alternative sources of energy, to maximally reduce the whole complex of costs associated with the energy supply of naslegs of the North, otherwise the intensive disposal of fixed assets from the economic turnover of the northern enterprises (the organizations) and the reduction of biological resources will lead to the fact that there will soon be nothing to plan at the level of the local self-government of the Northern regions.

On the base of the accumulated experience of the state economic management, executive authorities and municipalities need to work together to develop proposals on the issues of credit, financial and tax policy, material and technical supply, related to the northern state policy, as well as the targeted control over the time frames of the transfer of the allocated funds for the specified purpose and their use.

4. On state of traditional branches of economic management of indigenous peoples of North

Therein the issue is about questions, which are related to the northern reindeer breeding, the problems of traditional industries as the way of life and employment of the peoples of the North. At the same time, the main tasks are:

- the increase of the number of reindeers;
- the increase of the production of the reindeer breeding industry (meat, unossified antlers, skins, parts of the skins of legs of animals and craftwork goods);
- the creation of the conditions for stabilization and further development of hunting for wild reindeer;
- the organization of the system of procurement, processing and production of leather and fur products.\(^3\)

\(^3\) In the article, the materials of O.M. Val's thesis work "Northern reindeer husbandry: state, development trends (on the example of the Republic of Sakha (Yakutia)" are used.
To preserve and further develop the reindeer breeding industry, the work must be carried out to strengthen the material and technical base, to improve the feed base and to create attractive production and nomadic conditions. One of the most important tasks is to create the conditions for the procurement, processing and sale of products of the traditional industries of the North. It is necessary to create the conditions for the transportation of products to places of the sales.

To increase the production of the industry of reindeer breeding industry (the meat, the unossified antlers, the skins, the parts of the skins of legs of animals and craftwork goods), the following measures should be specified: the provision of reindeer breeding industry conditions (mandatory double classification of reindeers, routine repairs of stationary corrals and fences, the purchase of petroleum products, the harvesting and purchase of heating fuel for reindeer farms of the tundra zone); stimulation of the commodity production (the production of meat products, the leather and fur raw materials, the unossified antlers, horn breakage, craftwork goods, etc.). It is necessary to establish the single republican procurement and supply enterprise for the reindeer breeding by the large reindeer farms that switch to the commodity production. In the creation of a vertically integrated structure of the organization of the reindeer breeding production on the part of the Ministry of Agriculture and Food Policy of the Republic of Sakha (Yakutia), it is necessary to envisage reimbursement of a portion of the transport costs of the reindeer farms shifting to the commodity production; reconstruction of ice-houses for the storage of the reindeer products; the reimbursement of a share of expenses for the construction of reindeer breeding bases on roaming routes; the organization of specialized unossified antler and donor herds in the regions with an optimal transport scheme and reimbursement of a fraction of the maintenance costs.

All these measures naturally fit into the state strategy of the socio-economic development of the northern territories in the places of compact residence of the indigenous population under the conditions of the municipal reform, which is based on the principles of "the preservation of the historically established traditional bases of the development of the northern territories", the development of settlements as the single socio-economic, territorial, natural and cultural-historical complex carrying out the production, socio-demographic, cultural, environmental protection and recreational functions.

According to the results of a calculation of the main organizational and legal forms of the reindeer farms, it was determined that in the Republic of Sakha (Yakutia) as of January 1, 2017, the largest proportion of 58.5% is taken by the tribal communities, where the majority of the indigenous small-numbered peoples of the North are employed, and agricultural cooperatives (19.8 %), which are the form of organization of production, which requires the state support. The state enterprises account for 12.6% of the total number of organizations. All other forms of ownership have the insignificant proportion from 0.9% to 2.7%.

From our point of view, it would be desirable to revive all the forms of the trading stations (cooperative relations) for the modern full purchase, the storage, processing and sale of the reindeer breeding and trade products, as well as the effective provision of the commodity exchange between the population of the northern settlements and structural subdivisions of the trading station system.

The development of the reindeer breeding requires the integrated approach at the federal level, the reindeer population must be restored throughout the Russian North, especially in the Far East. Currently, those measures of the state support, which have been developed, do not give the proper result, the reduction of the number of livestock continues. Since the reindeer breeding occupies mainly the northern part, which has, as already stated, the complex climatic conditions, reindeer herders need to be adequately compensated for the difficult living conditions, which is currently insufficient. In order to stop a decrease of the number of reindeers, it is necessary to increase the financial support of the reindeer breeding enterprises and reindeer herders themselves, as the existing measures are insufficient. At present, the reindeer breeding as the separate branch does not develop and depends on the other traditional industries of the North. Basically, the enterprises are grounded on several kinds of activity such as fishing, fur farming, etc.
Scientists of the Republic of Sakha (Yakutia) have for years substantiated the rational organization of pastures, which today is practically not conducted and can lead to the even greater reduction of the deer population. In addition, in the majority of regions there is no well-organized base for slaughter, processing and storage of the products.

Also, the big problem is unproductive waste, which is losses of animals and predation.

At the same time, the reindeer breeding in the Russian Federation is practiced in four Federal Districts and 18 subjects, which have 1,650,800 head of reindeer, which include 156,800 heads in the Republic of Sakha (Yakutia) in 2016. As is known, the basis of the reindeer breeding is the pastures, which occupy more than 300 million ha of the territory of Russia.  

The reindeer pastures in the Republic of Sakha (Yakutia) are used for 50%, which indicates the existing reserves for the increase in the number of livestock on the unused areas.

The main branch of the Arctic, along with others, is the fishing, the state of which deteriorates year after year, and its inertial development leads to the aggravation of the existing problems.

The key mechanism in the sphere of law enforcement in this direction is removal of administrative barriers to the fishing due to the reduction of government institutions overseeing the branch, accelerated consideration and harmonization of projects related to the development of the industry, elimination of contradictions in the judicial practice creating additional risks in the sphere of financial and economic activity. Maintaining the state support at the same level as today will lead to the gradual reduction in catch volumes and a predominance in processing of imported products, and in light of the low catch volumes, but a greater demand for the products will reduce a percentage of production of the local raw materials, which will contribute to a deterioration of the branch state, reduce the local employment, increasing an outflow of the youth from the northern and arctic regions (the uluses).

To implement everything that is said in this article, it is necessary to elaborate normative legal acts and to adopt them both at the regional and federal levels. These are drafts of such laws as "On Trading Stations", "On Bases of Local Self-Government in the Russian Federation" (in a new wording) and the other normative and legal acts that ensure the implementation of the Laws "On tribal communities", "On land turnover of traditional nature management", "On State Support Fund for Agricultural Producers in North", "On State Regulation of Agroindustrial Complex in Arctic North", "On Investment Policy in Sphere of Agroindustrial Complex", "On Legal Status of Indigenous Population of Arctic Uluses, leading nomadic way of life" and "On nomadic schools in Republic of Sakha(Yakutia)" for the purpose of active state regulation of development of the northern settlements, the preservation of traditional forms of nature management, the development of a market character of the northern settlements.

In conclusion, we say that the Arctic and the North require large investments, since the issues of the development of the Arctic are topical and urgent, and it is the time to move from words to the implementation of practical tasks. 

References

[1] Law of the Republic of Sakha (Yakutia) No 179-1 of June 25, 1997 "On Reindeer Breeding"
[2] Law of the Republic of Sakha (Yakutia) 3 No 991-III of July 11, 2007 "On state target program 'Socio-economic development of village of Republic of Sakha (Yakutia) for 2007-2011”
[3] Decree of Government of the Russian Federation of July 14, 2012 No 717 "On State Program for Development of Agriculture and Regulation of Markets of Agricultural Products, Raw Materials and Food for 2013-2020"

4 The statistical yearbook of the Republic of Sakha (Yakutia): the statistical collection/The territorial body of the Federal State Statistics Service of the Republic of Sakha (Yakutia). - Yakutsk, 2016.-709c.

5 Arctic: perspectives of sustainable development: a collection of reports of participants of the International Scientific and Practical Conference (Yakutsk, November 26-28, 2014)/edited by V.I. Kondratieva – Yakutsk: State Autonomous Institution "Strategic Research Center of the Republic of Sakha (Yakutia)”, 2015. - p.20.
[4] State Program for Development of Agriculture and Regulation of Markets for Agricultural ProductsRaw Materials and Food for 2013-2020

[5] Federal target program "Sustainable development of rural areas for 2014-2017 and till 2020

[6] Arctic: perspectives of sustainable development: a collection of reports of participants of International Scientific and Practical Conference (Yakutsk, November 26-28, 2014) edited by V I Kondratieva (Yakutsk: State Educational Institution "Strategic Research Center of the Republic of Sakha (Yakutia)"") p 20

[7] Collection of abstracts: The Arctic - prospects of sustainable development Resolution The International Scientific and Practical Conference November 26-28, 2014 (Yakutsk) 84 p

[8] 2017 Agriculture in the Republic of Sakha (Yakutia): the statistical collection Sakha(Yakutia) statistics (Yakutsk) 169 p

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