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# Strategy of socio-economic development of the Yamalo-Nenets Autonomous District

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**Abstract:** The Yamalo-Nenets Autonomous District is a stable, dynamically developing region, where a solid foundation for further socio-economic development is laid, which allows building large-scale plans for the future. In this article, the authors, based on published sources and the regulatory framework of the Russian Federation, consider the Yamalo-Nenets Autonomous District, as one of the largest regions of the Russian Arctic, and the strategy of its socio-economic development. Through a detailed SWOT analysis of strengths and weaknesses, identifying opportunities and threats, studying statistical data, measures are proposed to improve the socio-economic development strategy of the Yamalo-Nenets Autonomous District. The analysis revealed a number of problems in the socio-economic development of the Yamalo-Nenets Autonomous District, namely: a significant predominance of the extractive industry over the processing industry, poorly developed transport infrastructure, the outflow of young people and problems of higher education, lack of accessibility and low quality of health services in remote and hard-to-reach areas of the region. To solve the problems identified during the analysis and strengthen the strengths, as well as improve the existing strategy of the socio-economic development of the region, the authors developed a number of strategic measures that will improve the quality of life in the Yamalo-Nenets Autonomous District, its investment attractiveness, sufficient development not only in the production sector, but also the infrastructure of the region. The authors draw attention to the fact that all the identified problems and their solutions are interconnected. Consequently, the improvement of the proposed directions for the development of the YNAO must be comprehensive, which will make it possible to increase the effectiveness of the implementation of strategic measures for the socio-economic development of the YNAO.

## 1. Analysis of the strategy of socio-economic development of the Yamalo-Nenets Autonomous District

The relevance of this research topic is due to the following reasons: 1) the effective development of the country in whole cannot be achieved without a clear analysis of the development of its subjects, their level of social and economic development; 2) The Arctic is a zone of strategic interests of Russia. In this zone, as in no other region, the geopolitical and economic interests of the leading world countries were concentrated; 3) The Yamalo-Nenets Autonomous District is one of the largest investment-attractive and ambitious regions of the Russian Arctic from the point of view of the development of the oil and gas cluster.

The purpose of this article is to analyze the current state of the region, to identify priorities and to improve a strategy for its socio-economic development.



The main methods of research are: SWOT-analysis, statistical data processing method, comparative analysis method, expert assessment methods. The following software products were used: Microsoft Word 2016, Excel 2016.

Currently, the Yamalo-Nenets Autonomous District (hereinafter -YNAO) has a strategy of socio-economic development, developed in 2011 for the period up to 2020, and a draft of a new strategy for the period until 2030 is being actively discussed.

An assessment of the actual current level of socio-economic development and investment attractiveness of the YNAO justified the expediency of conducting a SWOT analysis, in which the main evaluation criteria are ranked according to their importance based on expert judgment. To assess the investment attractiveness of the region, experts were involved. The results of the SWOT analysis are shown in Table 1.

Table 1 - SWOT-analysis of the strategy of socio-economic development of the YNAO for the period up to 2020

<b>Strengths</b>	<b>Weak sides</b>
<ol style="list-style-type: none"> <li>1. High level of budget support.</li> <li>2. The position of the leader of the YNAO in the Arctic zone of Russia.</li> <li>3. Stable political situation in the region.</li> <li>4. Decent conditions and wages.</li> <li>5. Developed regulatory and legal framework aimed at supporting investment activities in the region.</li> <li>6. The presence of a unique culture of indigenous peoples of the North.</li> </ol>	<ol style="list-style-type: none"> <li>1. The predominance of the mining industry over processing.</li> <li>2. Poorly developed transport infrastructure.</li> <li>3. Outflow of the young population and problems of higher education.</li> <li>4. Insufficient availability and low quality of health services in remote and hard-to-reach areas of the region.</li> </ol>
<b>Opportunities</b>	<b>Threats</b>
<ol style="list-style-type: none"> <li>1. Development of the largest national investment projects in the region (opening of the sea port of SABETTA, which has the strategic goal of transporting liquefied natural gas).</li> <li>2. Development of Arctic tourism (including cultural).</li> <li>3. Development of social and transport infrastructure in remote and hard-to-reach areas of the region (development of water, air, rail and road).</li> <li>4. Creation of higher educational institutions on the basis of clusters (for example, higher educational institutions that train specialists for work in the oil and gas sector).</li> </ol>	<ol style="list-style-type: none"> <li>1. Transport distance from large production centers and markets.</li> <li>2. The decline in world prices for hydrocarbons.</li> <li>3. Improving the competitiveness of alternative energy sources.</li> </ol>

From the table it is obvious that the most important problem of the socio-economic development of the region at the moment is the problem of imbalance in the development of the mining and processing industries, the predominance of the latter.

In the structure of the economy of the Yamal-Nenets Autonomous District, the largest share belongs to industry (64%) and trade (23%) of the total economy (Figure 1).

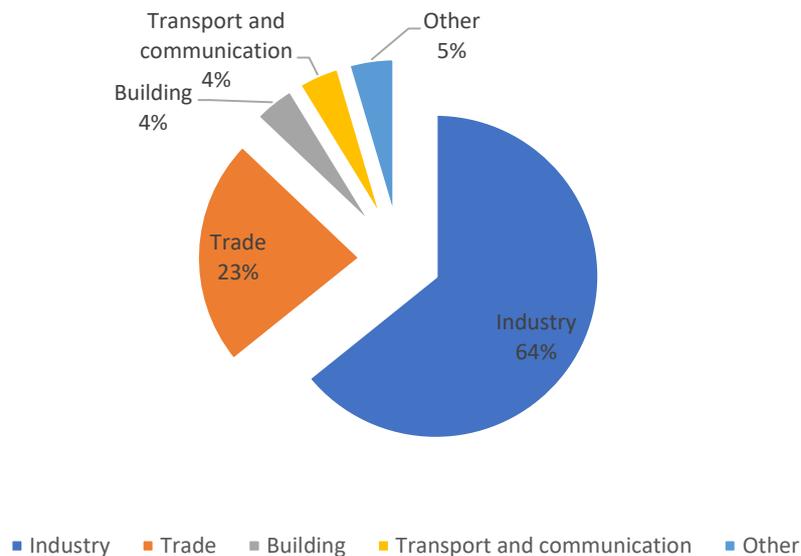


Figure 1 - The turnover structure of organizations of the Yamalo-Nenets Autonomous District by economic activity for 2018 [10]

Yamal-Nenets Autonomous Okrug is the largest supplier of hydrocarbon raw materials not only to the domestic Russian market, but also to European markets, as well as the markets of the CIS countries [5]. About 80% of Russian gas is produced here annually. Table 2 presents the main indicators of industrial production in the YNAO in the period from 2010 to 2017 [10].

Table 2 - The main indicators of industrial production YNAO

Name	Units	2010 year	2015 year	2017 year
Turnover of organizations for the extraction of minerals	Million rubles	1 273 560,7	1 551 852,8	1 654 275,1
Turnover of manufacturing industries	Million rubles	41 078,2	39 052,2	37 685,4
The ratio of turnover of mining and manufacturing industries	Once	31	40	44
Total number of industrial enterprises registered in the statistical register of economic entities as of January 1	Number of units	840	915	920
Oil production	Million tons	18,9	20,4	26,4
Gas condensate production	Million tons	21,6	24,3	25,5
Natural gas production	Milliprd cubic meters	498,9	502,3	505,2

Analysis of the main indicators of industrial production showed that the turnover of the mining industry is several times higher than the turnover of the manufacturing industry, and the manufacturing industry has a negative trend, in which there is a clear increase in the deviation in the ratio of the turnover of the mining and manufacturing industries in favor of the mining industry. The table also shows that for the period from 2010 to 2017. oil, gas condensate and gas production have positive trends, albeit small ones.

According to Rosstat, for 2017, the extractive enterprises amounted to 581 units, the processing industries - 192 units [10]. The increase in the volume of extractive production is due to an increase in oil production by 29%, gas condensate - by 4.8%, and natural gas - by 0.6%. The highest growth in the manufacturing industry was provided by: primary oil refining - 2.9% and diesel fuel production - 14.5% [10].

The manufacturing and extractive industries are inextricably linked, as the reduction of one industry leads to problems in the other. Raw materials companies are not interested in mining, if there is no certainty that the raw materials will be used in the future. The preponderance of industry towards mining has shaped consumer attitudes towards the northern territories, where short-term benefits prevail over long-term ones [6].

The narrow-raw structure of the economy, based on the extraction of hydrocarbons, has negative consequences in periods of falling world prices for raw materials and as a result of depletion of the raw material base. The pricing of oil and gas in international markets is a factor on which the regional economy depends. This situation suggests that it is necessary to take measures relating to the development of the manufacturing industry, to search for customers and investors. Search for new markets in Russia and abroad, without losing, at the same time, due to the quality of processing, to increase competitiveness [9].

The next important social problem of the region is the insufficient development of the transport infrastructure of the region, poor access to transport, especially in remote areas of the YNAO. The factor limiting the development of the economy of the Yamal-Nenets Autonomous District is the lack of a developed network of railways and highways with hard surface. The main feature of the transport infrastructure is expressed in the absence of regular transport routes for the supply of goods and goods to most areas of the autonomous region [6]. This is one of the most significant problems affecting the sustainable socio-economic development of the region.

Currently, one of the largest transport projects in Yamal is the construction of the Nadym-Salekhard highway, which was planned to be completed by 2019, but is delayed until 2021. Figure 2 shows the indicators of the density of transport routes in the YNAO for the period from 2005 to 2017.

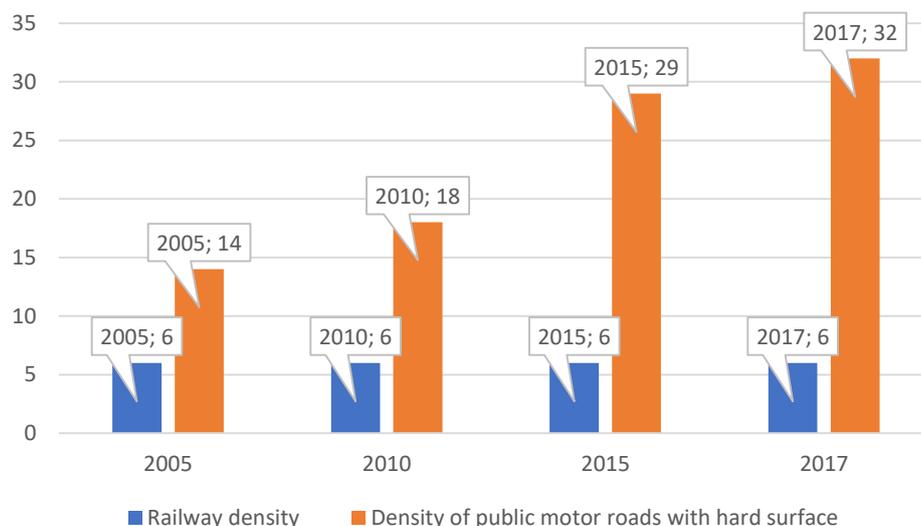


Figure 2 - Dynamics of density of transport routes in the YNAO during the period 2005-2017 (km of lines per 10,000 km<sup>2</sup> of territory) [10]

Analysis of the density of highways in the YNAO allows us to speak about positive dynamics. At the same time, unlike the density of roads, the density of railways has not changed over the past 12 years, which does not contribute to the development of the region.

Transportation is a key success factor in the development and subsequent operation of deposits in remote areas of the Far North. In the YNAO, each type of transport has its own characteristics, but the common main feature for the undeveloped northern territories is seasonality, which is associated with the spill of water bodies in springtime, that is, with high water [5]. In this regard, the priority task of the development of transport of the autonomous region is the creation of a full-fledged regional

transport ground infrastructure and the further development of the infrastructure of water and air transport.

In third place, experts have identified the problem of the continuous outflow of young people from areas of the Arctic zone, and therefore the problem of attracting new personnel to the region from other regions of Russia for the development of oil and gas business arises. In this connection, the costs of attracting young people who agree to move to the YNAO on more economically advantageous terms increase. In addition, the attracted personnel for a long time do not stay in the region, which leads to the existence of the problem of the constant attraction of personnel. Such a solution to the problem of shortage of personnel, in our opinion, is not effective for the development of the region.

Moreover, it is worth noting that the outflow of young people from the region is mainly due to the lack of its own higher education institution in the region [4]. This situation leads to the fact that young people, after receiving a high school diploma, rush to other regions of Russia in order to obtain higher education.

Within the educational sphere, it is necessary to consider a number of quantitative indicators, such as the number of general educational organizations, professional educational organizations, the number of branches of educational institutions of higher education (Figure 3).

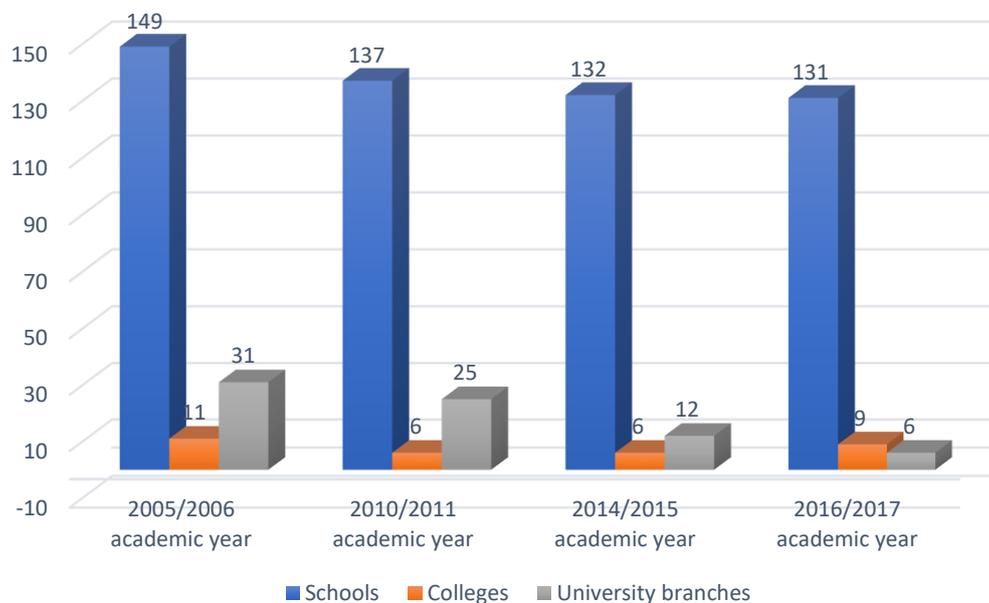


Figure 3 - Dynamics of the number of educational organizations in the YNAO in the period 2005-2017 [10]

The overall dynamics of the number of educational institutions in the YNAO can be assessed as negative. It should be noted that the situation with branches of higher educational institutions is particularly disastrous, the number of which has decreased by more than 5 times over 12 years.

There are no own scientific research institutes in the YNAO. Organizations and specialists from other regions of the Tyumen Oblast are engaged in geological exploration and development in the field of the oil and gas complex [7]. Scientific activities are concentrated in universities, the number of which tends to decrease. There is a need to develop mechanisms for attracting employers to the formation of a target order for training in state professional educational organizations of the autonomous region.

At the last, authors identified the health problem [7]. Currently, unresolved issues in this area are: a) the problem of medical care and the supply of medicines to particularly remote areas of the YNAO; b) the timeliness of emergency and routine medical care to rural and nomadic people; c) high infant mortality among the wandering population; d) the need to provide residents of the YNAO with

specialized, high-tech and rehabilitation medical care; e) depreciation of fixed assets of healthcare institutions; e) a significant reduction in the number of health workers.

According to the results of the SWOT-analysis of strengths and opportunities in the socio-economic development of the YNAO, it can be concluded that the region has great potential for improvement.

## **2. Proposals for improving the strategy of socio-economic development of the Yamalo-Nenets Autonomous District for the period up to 2020**

To solve the problems identified during the analysis and to strengthen the strengths, as well as to improve the existing strategy of the socio-economic development of the region, in our opinion, the following strategic measures are necessary.

1. For manufacturing enterprises it is advisable to form special zones with a special tax regime, which: a) will lead to a reduction in the volume of costs for the creation and launch of production; b) will reduce costs for the delivery of raw materials to processing enterprises. We believe that interested companies will be able to use the financial benefits provided to them not only for the main production, but also for the formation of the infrastructure, which will ensure integrated regional development.

2. In order to improve the transport infrastructure, in our opinion, it is necessary to attract private investors to harmonize the transport strategy of the region, which will allow for a more rational distribution of transport flows across the peninsula and avoid duplication of objects. In addition, we consider it necessary in the territory of the Autonomous Okrug to carry out the construction of a large railway transport corridor, which will pass through the entire island and will work both for the purpose of cargo transportation and with passenger traffic [5].

3. In order to solve problems in the field of education, namely, the annual reduction in the number of higher educational institutions and their branches and, as a consequence, the presence of a shortage of qualified personnel, it is proposed to establish a relationship between educational organizations and enterprises, which will consist in the organization of targeted education, enterprises to graduates, providing enterprises with financial support for educational organizations with the simultaneous development of incentives to attract and retain Nia in extreme climatic conditions. The development of educational institutions of higher education and improvement of the quality of services provided in them will reduce the outflow of personnel from the autonomous region and will lead to the formation of qualified personnel for the needs of their own economy. The growth in the number of higher educational institutions in the YNAO will provide the territory of the district with highly qualified labor resources, which will lead to the improvement of the scientific, technical and socio-cultural development of the region.

4. In order to improve the health sector, we propose to implement the following set of measures. In order to increase the availability and efficiency of consulting and diagnostic and stationary specialized assistance in remote and hard-to-reach areas of the autonomous region, to carry out its restructuring. At the same time, it is necessary to focus on such areas as Purovsky, Tazovsky, Nadym and other similar ones, since it is their population that lacks medical and pharmaceutical companies, the system of emergency medical care is extremely slow. The solution of the problem should be comprehensive, first of all, it is proposed to staff outpatient and inpatient medical institutions in hard-to-reach areas of the YNAO with medical personnel, to attract highly qualified medical personnel to work in rural areas and to improve the qualifications of doctors using remote sensing methods. It is advisable to introduce a system of remote consultation and diagnosis of patients at the base of medical assistants and medical stations in remote areas of the YNAO, in order to get the population medical advice from highly qualified doctors without leaving the place of residence.

In order to ensure the availability of distribution and purchase of various drugs throughout the YNAO and in its most remote areas, it is proposed to expand the rights of paramedics working in rural areas, in particular, the right to prescribe prescription drugs for areas of the autonomous region that do not exist pharmacies, as well as implement the sale of medicines through medical assistant and

medical points. The proposed measures will help local residents to acquire the necessary medicines, without leaving the settlement.

5. In order to attract investments, we offer to create favorable conditions for running small and large businesses. For example, for companies whose investment projects are included in the priority list, to provide state support in the form of granting the right to use lower tax rates, in particular, to provide for them the use of reduced rates on corporate income tax and corporate property tax; to attract manufacturing industries to the region, to significantly reduce the corporate income tax rate for them.

We believe that these measures will allow for a sufficient amount of development not only in the production sector, but also the infrastructure of the region. It is advisable to draw attention to the fact that all the problems identified and their solutions are interrelated. Consequently, the improvement of the proposed directions for the development of the YNAO must be comprehensive, which will make it possible to increase the effectiveness of the implementation of strategic measures for the socio-economic development of the YNAO.

## References

- [1] Alhadeff I 2015 United States and Russia in the Arctic Zone Available from: <https://iakal.wordpress.com/2015/08/05/united-states-and-russia-in-the-arctic-zone> [Accessed 20th February 2019]
- [2] Alekseev G V 2016 Russia’s Arctic Space in the XXI century: Development Factors, organisation of management p 153-191
- [3] Didenko N I and Konahina N 2017 Features of the Arctic Zone of the Russian Federation from positions of innovative development *Comprehensive development of the Arctic Coll. of scientific works Of the international Symposium* p 15-26
- [4] Fauser V V and Lytkina T S 2015 The shift method and the demographic potential of the Russian North in the administrative aspects of the development of the northern territories of Russia *All-Russian Scientific Conference* p 302
- [5] Kikkas K and Romashkina E 2018 Potential Opportunities for the Arctic Transport *Space IOP Conference Series: Earth Science and the Environment* Available from: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85051952240&doi=10.1088%2f17551315%2f180%2f1%2f012016&partnerID=40&md5=39bf94aa24eff75d05a1415f8cee38e1> [Accessed 12th March, 2019]
- [6] Nilsen T 2017 Innovation from the inside out: Contrasting fossil and renewable energy pathways at *Statoil Energy Research & Social Science* **28** 50-57
- [7] Romashkina G F *et al* 2017 Socioeconomic modernisation of Russia and its Arctic regions *Studies on Russian Economic Development* **28** 30-40
- [8] Rozhkov K L 2018 Localities typology as a marketing tool for the territory Available from: <http://openbudget.karelia.ru/books/tezis2003/t41.htm> [Accessed 21th February 2019]
- [9] Shmat V V 2014 Essays on the Economic Problems of the Russian Oil and Gas Sector *Novosibirsk: Institute of Economics and Ecology SB RAS* p 524
- [10] Official site of the Federal State Statistics Service Available from: <http://www.gks.ru> [Accessed 24th February , 2019]