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# Socio-economic development of the Arctic border regions of the Republic of Sakha (Yakutia)

# N Melnikova<sup>1\*</sup> and N Fedorova<sup>1</sup>

<sup>1</sup> M. K. Ammosov North-Eastern Federal University, 58 Belinsky str., Yakutsk 677027 Russia

E-mail: shpresa1000000@gmail.com

Abstract. The article attempts to comprehensively study the current state of socio-economic development of the Arctic border regions of the Republic of Sakha (Yakutia), taking into account economic and socio-psychological factors. A general assessment of the living conditions of the population, taking into account the main socio-economic indicators in the development of the five arctic cross-border regions of the Republic of Sakha (Yakutia) and based on interviews, observation, and questioning, showed an increase in the level of people's discontent. The adoption of urgent measures at the state and regional levels of government, aimed at the development of not only productive but also social capital of the Arctic, is necessary.

Keywords: socio-economic development, Arctic border regions, ulus, indicators

## 1. Introduction

The socio-economic development of the Arctic border regions of the Russian Federation is characterized by the primary development of the mining industry, obsolescence of the material and technical base of social institutions, changes in people's attitudes towards traditional forms of environmental management and the outflow of the population [4, 5]. Intensive growth in mining operations in selected Arctic areas contributes to increased investment in transport and energy infrastructure. However, the local population, mainly engaged in the sphere of state and municipal administration, budgetary organizations and agriculture, does not associate their future with the development of this industry. The population's psychological well-being is the basis of such a socio-economic component of the region as its human potential and social capital [2]. Social capital is a psychological relationship that promotes well-being, health, satisfaction with the quality of life, development. Real social capital is about trusting others, tolerance towards others, strong cohesion based on identity, harmonious civic identity. They are important factors of economic activity of the population, contribute to the formation and actualization of economic attitudes [3]. Problems of socio-economic development of territories should be considered in conjunction with the assessment of the socio-psychological component.

## 2. Materials and Methods

When collecting data, we used document analysis, group interviews, focus groups, in-depth interviews, questionnaires, content analysis, observations. Information was collected in the village of Chokurdakh, Allaikhovsky ulus in 2017 (population: senior pupils, working population, pensioners) and in Yakutsk, Russia in 2016, 2018 (with participants of retreats and students from the Arctic uluses). 6 group



interviews, 2 focus groups, 12 in-depth interviews were conducted. A total of 184 people took part in the survey.

In the research process, an analysis of statistical data was also carried out. We also used materials of the territorial body of the Federal State Statistics Service for the Republic of Sakha (Yakutia), sites of municipal districts of the Republic of Sakha (Yakutia) and critically analyzed the Socio-Economic Development Strategy of the Republic of Sakha (Yakutia) until 2032 with a targeted vision until 2050.

## 3. Results

The analysis of statistical data allowed to give a general description of the border ulus (district). All five uluses belong to the Arctic territories with adverse climatic conditions.

**Table 1.** The main socio-economic indicators of the Arctic border regions of the RS (Ya) in 2018 [7].

		District (ulus) of the Republic of Sakha (Yakutia)				
No	Indicator	Anabarsky	Allaikhovsky	Bulunsky	Nizhnekolymsky	Ust-Yansky
1	Average annual resident population, thousand people.	3.58	2.71	8.34	4.29	7.05
2	Volume of investments in fixed assets (excluding budgetary funds) per 1 person, rubles.	557282.80	414.09	74385.06	485.55	15724.05
3	Number of small and medium-sized businesses per 10 thousand people *	279.80	365.40	327.52	310.08	475.01
4	Average monthly nominal accrued wages of employees in organizations of large and medium-sized enterprises and non-profit organizations,	11071429	67770.02	77720 75	62779 52	68311.97
4	profit organizations, rubles.	110714.38	67779.02	77730.75	62778.52	

The Arctic border regions of the Republic of Sakha (Yakutia) are characterized by low population density, decentralization of energy supply, the lack of a developed road infrastructure, and the use of mainly river and air transport for the delivery of food. Population outflows occur. For instance, the total population of the five Arctic regions declined by 8% from 2010 to 2018. Traditional forms of environmental management, such as reindeer herding, hunting and fishing, have a lot of problems. For example, in Allaikhovsky ulus, there were 20,515 deer heads in 1990, 1766 in 2010, and no one in 2018 [8]. Repeated attempts to revive the Chokurdakh fish factory were unsuccessful. At the same time, according to the survey, fishing is an attractive trade for the population of the village of Chokurdakh (district center, Allaikhovsky ulus).

In the study, such phenomena were recorded as emotional burnout of entrepreneurs, a feeling of frustration. This is the result of when people organize an enterprise, but in the course of their work they begin to face various barriers. They start working again and face rather big problems. As a result, a state of learned helplessness arises, "hands fall." Mistrust in the village of Chokurdakh is connected precisely with attempts to restore the Chokurdakh fish factory. Also, the lack of a convenient logistic scheme for



the export of fish, low purchase prices from intermediaries are noted. Quite often, residents of the village compare life in the ulus and the village with the Soviet period, emphasizing the decline in living standards and the deterioration of the transport scheme, rising costs for tickets, cancellation of direct communication with Moscow, the replacement of large airliners with old AN-24 aircrafts.

The attitude to reindeer herding as a little prestigious occupation is fixed, which remained in the past. Social success is associated both by high school students and parents, with higher education and migration. At the same time, in the village of Chokurdakh, there is a fairly good social infrastructure, various social associations, including active ethnic communities. People actively support each other in difficult life situations. Their lifestyle related to fishing is still quite attractive for many residents. According to a 2016 survey, the Allaikhovsky ulus, unlike other Arctic uluses, is in the group with fairly good indicators of socio-psychological health, especially if compared to other territories of the Sakha Republic (Yakutia). First of all, migratory attitudes are associated with ideas about the lack of prospects for youth employment and the difficulties of developing entrepreneurship, skepticism regarding the development programs of the territory.

Reindeer herding remained in the Anabarsky and Bulunsky uluses, but on a much smaller scale compared to the Soviet period [9; 10]. The population is experiencing significant material difficulties. In these regions, a low level of socio-psychological health of the population is recorded.

Entrepreneurs and heads of organizations have identified the following reasons that hinder business development in the Arctic territories (in order of preference):

- 1. Remote location:
- 2. Lack of necessary infrastructure;
- 3. Harsh climatic conditions;
- 4. Transport accessibility;
- 5. Tariffs;
- 6. Small population;
- 7. Remote location from Yakutsk;
- 8. Insufficiently developed network and distance forms of education of the population in economics and business.

At the same time, high values of indicators capturing the level of investment in fixed assets and average monthly wages of employees of large and medium-sized enterprises (see Table 1) in the whole ulus group reflect the active economic activity of industrial companies in the development of mineral deposits.

#### 4. Discussion

The Arctic border regions of the republic are of interest to investors only in terms of the possibility of extracting natural resources. For example, in the Anabarsky ulus, the prospects for the development of the West Anabarsky oil and gas field are considered taking into account the possibility of creating the Taymylyrsky fuel and energy complex in the Bulunsky ulus [6]. Development projects of these fields are not provided with the appropriate transport and energy infrastructure. However, due to the scale of their predicted size, they are of national and global importance, and the likelihood of developing the West Anabarsky oil and gas field is quite high.

Since it is obvious that the export-raw model of economic growth in the arctic part of the region does not contribute to the development of social capital, the regional authorities set the main goal to create conditions for raising the standard of living in the arctic part of Yakutia through the formation of the North Yakutsk support zone with the center in Tiksi. High hopes are pinned on the use of the Northern Sea Route. The question of creating the third in the republic of the Arctic territory of advanced socioeconomic development is considered. However, since the TASED introduction is associated with tax incentives for resident mining companies that mainly use shift workers, the issue of social importance and effectiveness of such an industrial policy mechanism is ambiguous and is subject to separate study.



Unfortunately, the standard of living of the population of these uluses is objectively and subjectively rated as low, which contributes to the outflow of active indigenous people.

The problem of low quality of life requires an integrated approach and interaction of all parties, a dialogue between regional authorities and the population. The psychological component is of great importance here. Such points as trust in regional and federal authorities and other subjects of economic relations, economic behavior, cultural values of the peoples inhabiting the region, traditional activities and their way of life should be taken into account when drawing up a program of action for the development of territories. The mood and social attitudes of the population must be considered. Only real steps to create a favorable climate for business development, building a strategy for export trade in products of traditional industries will be able to restore public confidence and stop migration.

#### 5. Conclusion

The Arctic border territories of the Republic of Sakha (Yakutia) are the focus of attention of both domestic mining companies and countries wishing to use all the advantages of the Northern Sea Route. A key success factor in determining the competitiveness of the Arctic is the presence of a significant amount of minerals. In pursuit of natural wealth, investors are ready to invest in the construction of appropriate infrastructure. Public-private partnership in transport and engineering infrastructure projects will accelerate the development of border areas, as well as consolidate and increase the number of resident populations. Appropriate target programs for the development of the Arctic territories, taking into account socio-psychological factors, are necessary. Projects for developing traditional activities such as reindeer herding, fishing, hunting, having export potential, are to be included in the North Yakutsk support zone. They should take precedence over other investment projects when making decisions about supporting local production through the mechanisms of grants, various funds, etc.

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