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Social Risks of Achieving Sustainable Development in the Arctic Region

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Abstract. The sustainable development of circumpolar countries is of great importance for the whole world, because the Arctic Region is currently experiencing an unprecedented level of economic activity. From the perspective of the concept of sustainable development, the intensification of industrial activity in the Arctic region makes the issues of achieving long-term environmental and social sustainability for local communities relevant. Despite the fact that the Arctic countries, especially the countries of Northern Europe, are leaders in achieving the UN Sustainable Development Goals, additional attention is needed to coordinate efforts to achieve them at all levels of administrative-territorial management. The relevance of our study is determined by the need to overcome the challenges and threats to the sustainable development of the Arctic territories of circumpolar countries. The aim of the study was to analyze the social risks of achieving sustainable development of the Arctic region. The methodological basis of the study was the system approach, methods of structural-historical and comparative-geographical analysis. It was substantiated that social risks in achieving sustainable development in the Arctic region are limited access to educational services; social tension in the labor markets, produced by professional and qualification imbalances of labor demand and supply and problems of youth employment; child poverty and poverty of the indigenous population. The scientific novelty of the research is in substantiating the social risks that pose a threat to the sustainable development of the Arctic region. The prospects for further research are conditioned by the need to solve urgent socio-economic and managerial problems associated with the sustainable development of the Arctic region.

Keywords: *Arctic region, sustainable development, poverty, unemployment, social sustainability*

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Introduction

In 2015, the international community adopted the 2030 Agenda, based on the trinity of social, economic and environmental sustainability [1, p. 13] — the ultimate long-term goals of realizing human rights. The Sustainable Development Goals (SDGs) outlined by the Agenda bring together the efforts of countries in a wide range of economic (economic growth, industrialization, innovation and infrastructure, sustainable cities, responsible consumption and production), environmental (climate change, conservation of marine and terrestrial ecosystems, clean energy) and social (elimination of poverty and hunger, good health and well-being, quality education,

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reduction of inequalities) functional areas. The most important element of the success of sustainable development on a global scale is the localization of the SDGs, i.e. interaction and coordination of efforts to achieve them at all levels of administrative and territorial management, since the opportunities and problems of sustainable development vary significantly not only across countries, but also within them [2, p. 1027].

The Arctic region¹ today occupies a special place in global politics. The long-term interests of circumpolar countries in the Arctic region are associated with the world's largest mineral reserves. The traditional use of natural resources by the indigenous population and the development of Arctic shipping play an important role in the economic development of such countries. The Arctic territories of circumpolar countries are characterized by the predominant development of resource-extracting industries; poor development of transport and logistics infrastructure; high vulnerability of the living environment; the need to preserve the authentic way of life of the indigenous population; limited human capabilities for self-development, produced by the economic specifics of the Arctic territories. Undoubtedly, the strategic importance of the Arctic territories determines the implementation of Arctic policy by the circumpolar countries, the basis of which should be sustainable development.

Degree of development of the issue

Studies of sustainable development of the Arctic region are numerous, but the format of this article limits the possibility of citing scientific articles that reflect their results. Certain aspects of such studies include an analytical review of strategic documents of foreign northern countries on Arctic policy issues [3, p. 38; 4, p. 417]; studying decision-making methodologies and developing tools for managing Arctic territories [5, p. 37]; searching for effective directions of state policy to create conditions for sustainable socio-economic development of the Arctic territories [6; 7, p. 128]; analysis of management institutions in the field of sustainable development of the Arctic regions [8, pp. 119–120]. The studies of economic sustainability of the Arctic region include the issues of rational nature management [9; 10, pp. 4–6], including the exploration and exploitation of natural resources [11, pp. 99–100] and the effective use of the industrial potential of coastal territories during the development of shelf deposits [12]; issues of development of Arctic infrastructure [13], including issues of development of transport infrastructure [14, pp. 180–183; 15, pp. 42–43] and its digitalization [16, p. 1]; issues of diversification of Arctic economies [17, p. 107], development of tourism [18, p. 47; 19, p. 142] and agriculture [20, p. 100]. A wide range of works is devoted to environmental sustainability in the Arctic. These include studies of the impact of a changing regional climate on Arctic ecosystems and local communities [21, pp. 407–410] and issues of environmental safety management in the Arctic [22], solid waste management [23, pp. 340–345], etc. On the contrary, studies of the issues of

¹ Vliyaniye Polyarnogo Shelkovogo Puti na arkticheskiy region: vozmozhnosti i riski [The impact of the Polar Silk Road on the Arctic region: opportunities and risks]. URL: <https://www.ankasam.org/вливание-полярного-шелкового-пути-на-а/?lang=ru> (accessed 04 March 2023).

social sustainability of the Arctic region are sporadic; there is a study of the contribution of local youth to the social sustainability of Arctic cities [24], an analysis of problems associated with the uninterrupted delivery of goods within the framework of northern delivery [25, pp. 15–16], issues of transition to expanded reproduction of human capital [26, pp. 852–853], as well as a study of the problems of assessing social sustainability and determining ways to achieve it in the regions of the Russian Arctic [1].

The aim of our research was to analyze the social development of the Arctic territories in the framework of achieving the SDGs of the Arctic region. In this study, we understood the Arctic region as Iceland, the Arctic territories of Norway, Sweden, Finland, Denmark, Canada, the USA, as well as regions of Russia, the territories of which are fully included in the Arctic zone. The methodological basis of the study was a systematic approach, methods of structural-historical and comparative-geographical analysis. The scientific novelty of the study is in the substantiation of social risks that pose a threat to the sustainable development of the Arctic territories of circumpolar countries. Prospects for further research are related to the solution of urgent socio-economic and managerial tasks facing the state, business and society related to the sustainable development of the Arctic region.

Research results and discussion

Today, the concept of sustainable development is an internationally recognized vector of social development, providing for a harmonious solution of a whole range of problems in the interests of current and future generations.

According to the Sustainable Development Report ², Nordic countries demonstrate relatively high support for the SDGs, while the USA and the Russian Federation — the least support. Such conclusions were based on the calculation of the SDG Index for 2022 based on 169 indicators, grouped by economic (GDP growth, logistics efficiency index, R&D expenditures, government spending on education and healthcare, etc.), environmental (share of renewable energy sources in total primary energy supply, per capita volume of municipal solid waste, industrial emissions, ocean health index, etc.) and social (proportion of population living below the USD 1.90 per day poverty line, literacy rate, health services, life expectancy, unemployment rate, proportion of youth unemployed/uneducated, university rankings, etc.) functional areas.

According to the Report, the efforts of circumpolar countries in achieving the SDGs in the social functional area are moderate in the areas of fighting poverty (Finland, Denmark, Sweden, Norway, Iceland and Russia), ensuring quality education (Finland, Canada, Russia), reducing inequality (Denmark, Norway, Iceland). The main problems in achieving social sustainability in such countries remain the high level of poverty among older citizens (Finland, Sweden, Canada, USA); significant regional differences in life expectancy (Finland, Norway, Canada) and gaps in

² Sustainable Development Report 2022. From Crisis to Sustainable Development: the SDGs as Roadmap to 2030 and Beyond. URL: <https://dashboards.sdindex.org/> (accessed 02 May 2023).

health assessments by decile groups of the population (Finland, Sweden, Iceland); a high share of households with more than 40% of their disposable income spent on housing (Finland, Denmark, Sweden, Norway, Iceland, USA); limited access to the Internet for low-income groups (Denmark, Sweden, Norway, Canada, USA).

The Arctic territories of circumpolar countries play a critical role in achieving the SDGs, as they are strategically important for long-term sustainable development.

Arctic region: narratives of circumpolar countries

The Arctic zone of Finland includes Northern Ostrobothnia, Kainuu and Lapland with a population of 10.1% of the country's total population [27, pp. 433–434]. In the Finnish sector of the Arctic region, green economy projects are currently being implemented with an emphasis on bioeconomy and wind energy; the leading sectors of the Arctic economy are tourism, mining and wood processing³. Finland has large deposits of chromite, cobalt, copper, iron, lead, nickel, zinc, and limestone. The country is the leading producer of talc in Europe. The Finnish mining industry includes the extraction and processing of metallic and industrial minerals, as well as steel production⁴. The country's current Arctic policy strategy⁵ is aimed at achieving the SDGs, identifying four priorities for activity in the Arctic: climate change, promoting the well-being and rights of indigenous people, welfare economics, infrastructure and logistics. The main directions of Arctic policy in achieving social sustainability: ensuring equal access to education and digital services, expanding opportunities for distance learning, employment and entrepreneurship.

Denmark's access to the Arctic region is Greenland, which "allows" the country to be classified as an Arctic state [27, pp. 431–432]. The population of Greenland is 56.4 thousand people. The country has significant reserves of zinc, lead, iron ore, gold, platinum, uranium, rare earth metals and coal. The main sectors of the Greenland economy are fishing, construction, tourism; Current activity in the mining industry is concentrated in the area of geological exploration. The autonomous Arctic region of Denmark is the Faroe Islands, the population of which is 53.6 thousand people; the main branch of the economy is fishing. Today, Greenland and the Faroe Islands independently determine their own internal policies and are engaged in dialogue with Denmark to determine the framework for work on the SDGs⁶.

The Swedish sector of the Arctic region includes the counties of Västerbotten and Norrbotten with a population of 5.2% of the total population of the country. Sweden does not

³ Pohjoisessa 178 miljardin euron investointipotentiaali — Pohjoisen rooli ilmastonmuutoksen ratkaisijana kasvaa. URL: <https://www.lapland.chamber.fi/pohjoisessa-178-miljardin-euron-investointipotentiaali-pohjoisen-rooli-ilmastonmuutoksen-ratkaisijana-kasvaa/> (accessed 21 April 2023).

⁴ Exploration & Mining in Finland, Sweden and Norway. URL: <https://resourceworld.com/exploration-mining-in-finland-sweden-and-norway/> (accessed 07 April 2023).

⁵ Finland Arctic Strategy 2021. URL: <https://vnk.fi/en/arctic-issues/finland-s-strategy-for-arctic-policy> (accessed 24 April 2023).

⁶ Kortlægning af initiativer, udfordringer og potentialer for fremtidig implementering af FN's agenda 2030 i Grønland. URL: <https://www.anguniakkavut.gl/nyheder/kortlaegning-af-verdensmaalene-for-baeredygtig-udvikling> (accessed 25 April 2023).

have its own oil and gas resources, but Swedish industry plays an important role in industries serving the energy sector — icebreaker fleet, shipping and consulting services⁷. Today, Sweden accounts for about 93% of iron ore produced in Europe; the country is a leading producer of non-ferrous metals. In addition to metal mines, large-scale industrial mining is also carried out here. The leading industries in the Arctic territories of Sweden are wood processing and the pulp and paper industry, mining, tourism, construction, transport and storage, energy and fishing, and the growing bioenergy industry. Current Swedish Arctic policy emphasizes the need for sustainable economic development through the empowerment of local communities as equal partners in decision-making processes at the national and regional levels⁸. Among the main directions of implementation of Sweden's Arctic policy⁹ in achieving social sustainability is the development of digital infrastructure in order to improve access to quality medical and social services in sparsely populated areas and the activation of youth policy based on expanding its opportunities for access to education, employment, housing, health, safety, culture and leisure [7, p. 139].

The Norwegian sector of the Arctic region (Nordland, Tromsø and Finnmark) accounts for 35% of mainland Norway and 9% of the country's population. Norway has huge reserves of oil, nickel, natural gas, iron ore, coal and titanium. The country ranks fifth in natural gas production and second in its exports in the world¹⁰. The leading sectors of Norway's Arctic economies are fishing and aquaculture, tourism, construction, trade; Growing industries include renewable energy, oil and gas, and minerals. The general direction of Norway's current policy in the Arctic is determined by the SDGs¹¹. The goal of Norway's Arctic policy¹², as part of achieving social sustainability, is to promote job creation by promoting cooperation between the business community and the higher education sector.

Iceland is the only country fully included in the Arctic region, with a population of 356 thousand people. The main sectors of the country's economy are fishing, tourism and the aluminum industry. Iceland's objectives in the Arctic region were enshrined in the Parliamentary Resolution on Iceland's Arctic Policy 2011. The country is committed to implementing the 2030 Agenda for Sustainable Development. The country's SDGs are integrated into government policies

⁷ Regionala utsikterhösten 2022. URL: <https://arbetsformedlingen.se/statistik/analyser-och-prognoser/arbetsmarknadsprognoser/rikt/arbetsmarknadsutsikterna-hosten-2022> (accessed 17 April 2023).

⁸ Sweden's New Arctic Strategy: Change and Continuity in the Face of Rising Global Uncertainty. URL: <https://www.thearcticinstitute.org/sweden-new-arctic-strategy-change-continuity-face-rising-global-uncertainty/> (accessed 17 April 2023).

⁹ Sveriges strategi för den arktiska regionen 2020. URL: <https://www.lapland.chamber.fi/pohjoisessa-178-miljardineuron-investointipotentiali-pohjoisen-rooli-ilmastonmuutoksen-ratkaisijana-kasvaa/> (accessed 21 April 2023).

¹⁰ Exploration & Mining in Finland, Sweden and Norway. URL: <https://resourceworld.com/exploration-mining-in-finland-sweden-and-norway/> (accessed 07 April 2023).

¹¹ The Norwegian Government's Arctic Policy. URL: https://www.regjeringen.no/en/dokumenter/arctic_policy/id2830120/ (accessed 14 April 2023).

¹² Mennesker, muligheter og norske interesser i nord. URL: <https://www.regjeringen.no/no/dokumenter/meld.-st.-9-20202021/id2787429/> (accessed 21 April 2023).

on social, economic and environmental issues. The country's priorities include increasing the efficiency of resource use, as well as reducing the negative impact of cities on the environment¹³.

The Canadian sector of the Arctic region entirely includes the provinces of Yukon, Northwest Territories and Nunavut. The Arctic territories account for 0.4% of Canada's total population. The main economic activities of the Canadian sector of the Arctic region are mining (diamonds, gold, silver, lead, zinc), the public sector and the service sector. The development of Arctic territories is one of the key priorities of Canada's strategic planning, the legal basis of which today is the Arctic and Northern Policy Framework¹⁴. The goals and objectives of Canada's Arctic policy are aligned with the goals of the 2030 Agenda for Sustainable Development. In the area of achieving social sustainability, they include ensuring the resilience of Indigenous people by addressing poverty and homelessness and expanding opportunities for lifelong learning.

The American sector of the Arctic region is Alaska, the share of its population in the total population of the country is 0.2%. The state has historically not played an important role in US foreign and domestic policy: despite the fact that Alaska, thanks to its oil reserves, is an important resource for ensuring American energy security, it is only in the last two decades that the state has actualized its importance in Washington's economic and military agenda¹⁵. The 2022 Arctic Strategy¹⁶ defines the current prospects for economic development of the American sector of the Arctic region. The goals of implementing such a Strategy are investments in infrastructure; expanding access to public services, including health, education, energy, housing, water and sanitation; development of new economic sectors (renewable energy, extraction of critical minerals, tourism and the knowledge economy).

The Russian sector of the Arctic region includes the Murmansk Oblast, Nenets, Yamalo-Nenets and Chukotka autonomous okrugs. The economy of the Russian sector of the Arctic region is dominated by the oil and gas complex and the extraction and processing of minerals. Accelerated socio-economic development of the Arctic territories is the main vector of Russia's modern Arctic policy¹⁷. The directions for implementing such a policy are the social and economic development of the Russian Arctic and the development of its infrastructure, the development of science and technology, environmental protection and ensuring environmental safety, ensuring the protection of the population and territories from natural and man-made emergencies. Measures to solve the problems of socio-economic development of the Russian sector of the

¹³ Voluntary National Review 2019. URL: <https://sustainabledevelopment.un.org/memberstates/iceland> (accessed 14 April 2023).

¹⁴ Arctic and Northern Policy Framework. URL: <https://www.rcaanc-cirnac.gc.ca/eng/1560523306861/1560523330587> (accessed 18 April 2023).

¹⁵ Arctic narratives and political values: Arctic States, China and NATO. URL: https://stratcomcoe.org/cuploads/pfiles/nato_arctic_study_2020_18-06-2020-2.pdf (accessed 29 April 2023).

¹⁶ The United States' National Strategy for the Arctic Region 2022. URL: <https://www.whitehouse.gov/wp-content/uploads/2022/10/National-Strategy-for-the-Arctic-Region.pdf> (accessed 18 April 2023).

¹⁷ Osnovy gosudarstvennoy politiki RF v Arktike na period do 2035 goda [Fundamentals of the state policy of the Russian Federation in the Arctic for the period until 2035]. URL: <http://www.scrf.gov.ru/security/economic/Arctic2035/> (accessed 18 April 2023).

Arctic region were enshrined in the Strategy for Developing the Russian Arctic Zone and Ensuring National Security until 2035¹⁸ and, in contrast to the Arctic strategies of the countries discussed above, the expected results of the implementation of such a policy are given.

Social risks posing threats to the sustainable development of the Arctic region

In general, the analysis of circumpolar countries' narratives in the Arctic region has shown that social goals in national documents are declarative in nature (Arctic strategies lack specific tasks, measures, deadlines and indicators for achieving such goals), preference is given to economic activity. This statement is confirmed by the results of the analysis of the social development of the Arctic territories in the framework of achieving the SDGs.

SDG "Ensuring quality education and lifelong learning opportunities". A significant contribution to the well-being of local communities is made by education, the level, accessibility and quality of which affect the economic potential of the entire society, the social status of a person, the quality and standard of his life. Today, the main threat to providing quality education in local communities of the Arctic region is limited access to educational services.

Alaska faces significant challenges in providing effective education¹⁹ — teacher shortages (more than 60% of teachers are hired from other states) and high turnover rates (almost one in four teachers leaves the jobs each year), resulting in low student achievement and a declining quality of the workforce in the long term. The reasons for this situation include low affordability of housing and the limited level of its improvement (water supply and sewerage), limited transport accessibility of remote settlements, low level of living comfort (limited network of shops, cultural institutions and leisure activities), cultural differences in Alaska (given its large indigenous population). The situation is aggravated by the poor quality of education of University of Alaska Anchorage (UAA) graduates: in 2019, the institution was decertified due to failure to meet the standards for educational preparation (CAEP), as a result of which students who received a diploma in education were ineligible for obtaining a teaching license in Alaska schools. The same situation is typical for the Arctic province of Canada — Nunavut.

In Norway, one in ten students drops out before or during their final year of upper secondary school. In Finnmark, every fifth boy and every sixth girl stops studying in upper secondary school. In Nordland, 16.3% of boys and 12.4% of girls do not complete the second stage of secondary education, in Tromsø — 15.4% and 10.6%, respectively. This situation aggravates the problems of youth unemployment²⁰: in 2020, the unemployment rate among young people

¹⁸ О стратегии развития АЗРФ и обеспечения национальной безопасности на период до 2035 г. [On the strategy for developing the Russian Arctic Zone and ensuring national security until 2035]. URL: <http://www.kremlin.ru/acts/bank/45972> (accessed 18 April 2023).

¹⁹ Teacher Turnover in Alaska: Causes and Solutions. URL: <https://alaskapolicyforum.org/2021/09/teacher-turnover-in-alaska-causes-and-solutions/> (accessed 18 April 2023).

²⁰ Business Index North — A periodic report with insight to business activity and opportunities in the Arctic. URL: https://businessindexnorth.com/sites/b/businessindexnorth.com/files/BIN2022_290x220-LQ_1.pdf (accessed 04 May 2023).

without complete secondary education was almost 2 times higher than the unemployment rate among youth with a higher level of education.

SDG “Promoting full and productive employment”. Achieving sustainable development of the Arctic region is impossible without ensuring full and productive employment. An analysis of the social development of Arctic local communities in circumpolar countries shows that social risks that create threats to sustainable development are professional and qualification imbalances in the Arctic labor markets and youth unemployment.

In 2022, the Norwegian Arctic region has the lowest unemployment rate: in Nordland — 2.3%, in Tromsø and Finnmark — 2.4% (compared to 4.6% in Oslo County and 2.4% on average in the country)²¹. The level of social tension in the labor market of Nordland and Tromsø and Finnmark is 0.6 people per 1 vacancy (in Oslo — 1.3). Despite this favorable situation, the problem of the imbalance between corporate needs and the supply of qualified labor remains particularly pressing for the Arctic territories of Norway. Thus, Nordland has the highest proportion of companies with serious hiring problems among other regions of Norway. The greatest labor shortages here are in the health and social services sectors; construction, fishing, tourism and catering are among the industries experiencing acute labor shortages²².

The shortage of skilled labor is a critical problem in Finland’s Arctic region of Kainuu²³. Today, Kainuu’s population is insufficient to meet labor needs: with a declining population due to high mortality and low birth rates, the region faces the problem of outmigration of young people due to the narrow range of vocational training opportunities. The greatest demand in the Kainuu labor market is for specialists in information and communication technologies, as well as qualified personnel in the field of health and social services.

Alaska will also face a crisis in the near future due to the lack of labor resources necessary for enterprises and industries. Negative demographic trends in the state include a reduction in the working-age population and a high proportion of young people in the migration decline.

The situation is similar in the Russian sector of the Arctic region, where the unemployment rate among graduates of secondary vocational and higher education is high²⁴. Thus, in the Chukotka Autonomous Okrug²⁵, the employment rate among university graduates is 69.2%, while the Russian average is 83.7%; unemployment rate — 13.5% (7.1%). The Okrug’s employers have a significant need for specialists of the highest qualification level (in the fields of science and

²¹ Befolkning — Forventet levealder. URL: <https://www.nfk.no/tjenester/planer-og-planlegging/statistikk-og-kart/nordland-i-tall/befolkning/befolkning-forventet-levealder.53964.aspx> (accessed 18 April 2023).

²² Virksomheter i Nordland sliter mest med å få tak i arbeidskraft. URL: <https://www.nav.no/no/lokalt/nordland/pressemeldinger/virksomheter-i-nordland-sliter-mest-med-a-fa-tak-i-arbeidskraft> (accessed 18 April 2023).

²³ Kainuun maakuntaohjelman toimeenpanosuunnitelma. URL: <https://kainuunliitto.fi/assets/uploads/2022/05/TOPSU-2022-2023-12.5.2022.pdf> (accessed 22 April 2023).

²⁴ Results of selective observation of employment of graduates who received secondary vocational and higher education. URL: https://gks.ru/free_doc/new_site/population/trud/itog_trudoustr/index.html (accessed 21 April 2023).

²⁵ Regional differences in the employment performance of university graduates. URL: https://www.hse.ru/data/2021/01/18/1348766917/release_2_2021.pdf (accessed 21 April 2023).

technology, education, healthcare), as well as skilled workers in industry, construction and transport²⁶. Young people have an unfavorable position in the labor market of the Russian Arctic regions. One of the reasons for this situation is the low level of employment for the first job related to the profession or specialty acquired. One example is the Nenets Autonomous Okrug²⁷, where the employment rate of graduates in their specialty is less than 60%, including those with secondary vocational education in training programs for mid-level specialists — 58%, in training programs for skilled workers and employees — 55.2%.

The problems of employment of the indigenous population are relevant for the Arctic region, the labor demand for which consists of unskilled jobs in peripheral sectors of the economy and seasonal jobs. One of the reasons for this situation is limited opportunities for obtaining education due to the remoteness of the places of life of the indigenous population from educational institutions. For example, in the Arctic territories of Canada, the unemployment rate among the indigenous population is 1.5 times higher than the general unemployment rate.

SDG “Fighting against poverty”. Problems of unemployment negatively affect the well-being of the population: problems of poverty remain relevant for the Arctic region. Poverty reduces the level and quality of life by limiting access to services and consumption and causes social exclusion. As a result, socially vulnerable groups of the population of the Arctic territories of circumpolar countries face higher rates of poverty (indigenous population, people with disabilities, single parents).

Social risks that pose threats to the sustainable development of the Arctic region are child poverty and poverty of the indigenous population.

In Alaska²⁸, the poverty rate is 10.1% (10.8% among working-age women and 8.4% among men); the poverty rate among older citizens is 8.5%²⁹; the poverty rate of the indigenous population is 22.9%. The state’s child poverty rate is 12.6%; many families experience food insecurity (9.5% of households are food insecure; 20% of the region’s children are members of such households).

In Canada, the highest level of child poverty is in Nunavut — 31.2% (the national average is 18.6%³⁰). The reasons for this situation are complex and varied³¹: high cost of living, limited job opportunities (Nunavut’s economy is small and isolated), lack of affordable housing, limited access

²⁶ The situation on the labor market of the Chukotka Autonomous Okrug. URL: https://trud87.ru/content/экспресс_информация_о_положении_на_рынке_труда (accessed 21 April 2023).

²⁷ Results of selective observation of employment of graduates who received secondary vocational and higher education. URL: https://gks.ru/free_doc/new_site/population/trud/itog_trudoustr/index.html (accessed 21 April 2023).

²⁸ 2020

²⁹ Poverty rate. URL: <https://talkpoverty.org/state-year-report/alaska-2020-report/index.html> (accessed 23 March 2023).

³⁰ Nunavut children experience the highest poverty rate in Canada: report. URL: <https://nunatsiaq.com/stories/article/nunavut-children-experience-the-highest-poverty-rate-in-canada-report/> (accessed 04 May 2023).

³¹ Poverty in Nunavut: Understanding and Combating It. URL: <https://www.makiliqta.ca/#:~:text=In%20Canada%2C%20poverty%20is%20measured,Nunavut%2C%20it%20was%209.1%25> (accessed 04 April 2023).

to education and training. Poverty in Nunavut disproportionately affects Indigenous communities, with poverty rates among Inuit reaching 62% (non-Indigenous people — 29%).

The Russian sector of the Arctic region has a paradoxical poverty situation. With a population of only 0.94% of the total population of Russia, the share of GRP produced here in the total product of the country is 4.6%, the average volume of GRP per capita exceeds the national average by 5 times. Despite this, more than 8% of the population of the Arctic regions lives below the poverty line; in almost 20% of households, the share of expenses for purchasing food exceeds 50%; about 80% of low-income households are families with children under 16 years of age [28, pp. 57–61]. According to the authors' estimates³², the level of child poverty in the Yamalo-Nenets Autonomous Okrug is 12.7%, in the Nenets Autonomous Okrug — 17.5%, in the Chukotka Autonomous Okrug — 19%, in the Murmansk Oblast — 21%. The factors of this situation are unfavorable demographic pressure, low-paid employment and unemployment.

In the circumpolar debates, social issues related to children are often forgotten, while child poverty is a phenomenon the presence of which is shameful for the state. Poverty has a negative impact on the prospects for sustainable development of the Arctic region, since it reproduces the phenomenon of child poverty: as the number of children increases, the standard of living decreases by 30% among full families with two children, and by 50% among families with three or more children [28, pp. 60–62]. Child poverty limits the prospects for achieving sustainable development in the Arctic region, as it is accompanied by worsening long-term negative trends — declining health and educational levels, rising unemployment, rising crime and social tension in Arctic local communities.

The indigenous peoples of the North are the category of population most vulnerable to the negative effects of climate in the Arctic; at the same time, industrial seizure of land and restrictions on the use of biological resources increase risks to health and livelihoods and threaten the existence of national cultures. Conflicts with resource-extracting companies (development of mineral deposits that affect an important area of the life of the indigenous population — lands, pastures, biological resources) remain relevant. The traditional economy is stagnating, and the anthropogenic impact on ecosystems reduces the ability to conduct traditional activities, while the level of education and cultural characteristics of the indigenous population limit their opportunities for socialization outside the traditional living environment [29, p. 41].

Conclusion

The analysis of social risks of achieving sustainable development of the Arctic region has shown that de facto, the Arctic strategies of the circumpolar countries emphasize the economic goals of the development of the Arctic territories, while social goals are subordinated to them — the human factor is considered as a tool for the accelerated development of the Arctic territories.

³² Certificate of state registration of the database No. 20226219815 “Integral index of the quality of labor potential of the regions of the North and Arctic of Russia, 2005-2019” from July 22, 2022.

Circumpolar countries are failing to achieve social sustainability that is relevant for the Arctic territories: the current stage of development of the Arctic territories is accompanied by a huge amount of investment; however, the exploitation of Arctic resources gives practically nothing in return to Arctic local communities. Social risks of achieving sustainable development of the Arctic region include limited access of the population of local communities to educational services, social tension in labor markets produced by professional and qualification imbalances in labor supply and demand, limited employment opportunities for the indigenous population and youth, as well as child and indigenous poverty.

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