

## Impact Factor:

ISRA (India) = 6.317  
ISI (Dubai, UAE) = 1.582  
GIF (Australia) = 0.564  
JIF = 1.500

SIS (USA) = 0.912  
ПИИИ (Russia) = 3.939  
ESJI (KZ) = 8.771  
SJIF (Morocco) = 7.184

ICV (Poland) = 6.630  
PIF (India) = 1.940  
IBI (India) = 4.260  
OAJI (USA) = 0.350

SOI: [1.1/TAS](#) DOI: [10.15863/TAS](#)

### International Scientific Journal Theoretical & Applied Science

p-ISSN: 2308-4944 (print) e-ISSN: 2409-0085 (online)

Year: 2023 Issue: 12 Volume: 128

Published: 04.12.2023 <http://T-Science.org>

Issue



Article



**Valeria Igorevna Kis**

Institute of Service Sector and Entrepreneurship(branch) DSTU  
Bachelor

**Ksenia Maksimovna Mitina**

Institute of Service Sector and Entrepreneurship(branch) DSTU  
Bachelor

**Artur Aleksandrovich Blagorodov**

Institute of Service Sector and Entrepreneurship(branch) DSTU  
master's degree

**Vladimir Timofeevich Prokhorov**

Institute of Service Sector and Entrepreneurship(branch) DSTU  
Doctor of Technical Sciences, Professor  
Shakhty, Russia

**Galina Yurievna Volkova**

LLC TsPOSN «Ortomoda»  
Doctor of Economics, Professor  
Moscow, Russia

## FINDING EFFECTIVE MEANS TO RESOLVE THE COMPETING INTERESTS OF INDIGENOUS PEOPLE AND MINING COMPANIES

**Abstract:** *the article evaluates the main directions of economic and social development of the Arctic zone of the Russian Federation, the possibility of simultaneously combining the goals of developing the natural resources of the Arctic territories with the goals of nature conservation and supporting the traditional crafts of the indigenous peoples of the North. The principles of solving these problems on the basis of state support for indigenous people are shown. The need to preserve the population of these territories is substantiated. A comparison was made of the current practice of state support for indigenous peoples in Russia and in countries close to it in terms of natural and climatic conditions. An assessment is made of the future development of industrial production and traditional crafts in the region. The article is devoted to the problems of ensuring sustainable development of the Arctic territories of Russia. The main issues of economic, social and environmental development of the region are considered. It is concluded that the policy of the Russian Federation is mainly aimed at using the economic potential of the Arctic and, accordingly, attracting investment in the mining industry and infrastructure of the Northern Sea Route. At the same time, it is necessary to develop a scientifically based policy to ensure the social and environmental sustainability of the region.*

**Key words:** *socio-economic development, support for the indigenous population of the North, traditional crafts, prospects for the settlement of northern territories, Russian Arctic, Arctic; investments; Northern Sea Route; transport infrastructure; environmental sustainability.*

**Language:** English

**Citation:** Kis, V. I., Mitina, K. M., Blagorodov, A. A., Prokhorov, V. T., & Volkova, G. Yu. (2023). Finding effective means to resolve the competing interests of indigenous people and mining companies. *ISJ Theoretical & Applied Science*, 12 (128), 39-52.

**Soi:** <http://s-o-i.org/1.1/TAS-12-128-4> **Doi:**  <https://dx.doi.org/10.15863/TAS.2023.12.128.4>

## Impact Factor:

ISRA (India)	= 6.317	SIS (USA)	= 0.912	ICV (Poland)	= 6.630
ISI (Dubai, UAE)	= 1.582	ПИИИ (Russia)	= 3.939	PIF (India)	= 1.940
GIF (Australia)	= 0.564	ESJI (KZ)	= 8.771	IBI (India)	= 4.260
JIF	= 1.500	SJIF (Morocco)	= 7.184	OAJI (USA)	= 0.350

Scopus ASCC: 2000.

### Introduction

UDC 332.14:338.19.

Currently, a number of large-scale projects for the formation and development of support zones for industrial and agricultural production are being implemented in the Arctic Zone (AZ) of Russia. The adopted Development Strategies for Russia and the regions until 2035 provide for investment projects aimed at exploration and production of mineral resources, development of transport, energy and housing infrastructure, and ensuring food security in the region. It is obvious that the intensive development of large mineral deposits and the organization of the work of many industries and settlements in AZ require solving population problems and supporting the traditional crafts of indigenous peoples.

The Arctic zone is one of the few regions where the population of the Arctic part is steadily decreasing. Since 1990, the number of residents in it has decreased by more than 2 times. If in the 1990s it was 148 thousand people, now it is a little more than 67 thousand. Over the past ten years, the population in the AZ of the republic has decreased by almost 9%. The temporary stay of workers engaged in production on a rotational basis and located only in limited places of its concentration does not guarantee the achievement of the necessary population of the northern lands.

World experience in the development and habitation of lands in extreme conditions shows the increasing desire of indigenous peoples for affordable consumer goods, similar in quality to urban ones. Thus, a number of important directions for the socio-economic development of the Arctic territories of Russia are determined, related to the need for industrial development of the territory, taking into account the specific interests and needs of the indigenous inhabitants of the North, who adhere to traditional areas of economic management, living conditions and consumption.

Traditional forms of environmental management in the Arctic territories - reindeer husbandry, hunting, fishing - are not currently the determining factors in their economic development. The main role belongs to the intensive development of large mineral deposits and the organization of the work of many industries caused by the need to develop food potential in the Arctic.

Currently, the share of agriculture in the production of the gross municipal product of the Russian Arctic is 3.3%. In Arctic conditions, this industry is important for providing the local population with agricultural products of their own production, for preserving the traditional way of life of the indigenous population and the cultural identity of indigenous peoples.

Under the subprogram for the development of traditional industries of the North of the Russian Arctic state program "Development of agriculture and regulation of markets for agricultural products, raw materials and food for 2018-2035," 24 subsidies are provided for the support and development of reindeer husbandry. In 2018-2021 government support amounted to more than 4 billion rubles. At the beginning of 2019, the AZ of the Russian Federation contained 106.3 thousand heads of deer, or 72.5% of the total number of reindeer in the republic. Despite government support, in 2019 compared to 2010, the deer population decreased by 16.2%. Meanwhile, the production of meat and venison products has significant export potential in the context of their environmental friendliness. After 2000, due to cases of "mad cow disease" in many European countries (as an alternative to beef), wider use of wild animal meat (deer, elk, roe deer) is being considered. The Russian Arctic, within the framework of the subprogram "Development of the fishery complex" of the Russian Arctic state program "Development of agriculture and regulation of markets for agricultural products, raw materials and food for 2012-2021", since 2015, Arctic regions have been allocated funds for the construction of fishing bases, glaciers, and the purchase of all-terrain vehicles equipment, boats, refrigerated containers and fish processing equipment. In the conditions of the Arctic territories of the country, in relation to the development of the agro-industrial complex, it is advisable to develop technologies using ice as a structural material for food storage. The relatively low environmental load and high level of development of traditional types of economy create a potential sufficient for the integrated development of coastal fisheries, largely due to the participation of the indigenous population. Modernization of the agro-industrial complex, increasing demand for environmentally friendly products will make it possible to achieve deep waste-free processing of reindeer husbandry and fishing products, ensure the development of fish farming and the food industry, satisfy domestic demand for food and enter new markets, including export, create new jobs for the population of the Arctic districts.

Thus, the development and support of traditional crafts should be considered as a form of "green" employment for the local population. One of the main life-supporting activities is hunting. The main objects of hunting are wild reindeer, white arctic fox, sable, muskrat, and squirrel. Significant resources are available in the Arctic Zone of the Russian Federation.

In all regions of the Russian Arctic, there is a downward trend in the number of cattle. In 2021 compared to the average for 2016-2018, the livestock decreased by 58.7% (to 5,737 heads). This decrease is due to high costs of purchasing feed. About half of the

<b>Impact Factor:</b>	<b>ISRA (India) = 6.317</b>	<b>SIS (USA) = 0.912</b>	<b>ICV (Poland) = 6.630</b>
	<b>ISI (Dubai, UAE) = 1.582</b>	<b>ПИИЦ (Russia) = 3.939</b>	<b>PIF (India) = 1.940</b>
	<b>GIF (Australia) = 0.564</b>	<b>ESJI (KZ) = 8.771</b>	<b>IBI (India) = 4.260</b>
	<b>JIF = 1.500</b>	<b>SJIF (Morocco) = 7.184</b>	<b>OAJI (USA) = 0.350</b>

livestock is kept on private farms, 30% on peasant farms, and 20% on agricultural organizations. The strategy for the socio-economic development of the Russian Arctic until 2035 provides for the “Arctic Stud Farms” project - the creation of unique types of meat processing products from the Kolyma and Yana horse breeds and Yakut aboriginal cattle. Currently, the food and processing industry in the Russian Arctic is poorly developed.

There is extremely insufficient production of greenhouse products in the Russian Arctic. If in the central regions of the European part of Russia, vegetables and fruits grown indoors are consumed in a volume of 32 kg/person. per year, then in the northern regions of the country, in Siberia, where they are practically the only source of vitamins, their content in the diet is only 7 kg/person.

According to data on the state of agricultural production in the northern territories, the problem of providing residents with locally produced products and, consequently, the required population of the northern territories has not been sufficiently solved. This problem can be solved most successfully by guaranteeing the assignment of land to the indigenous peoples of the North and their tribal communities for

the maintenance and development of traditional crafts. Meanwhile, the development of oil and gas and mineral resources directly affects the interests of the indigenous peoples of the North, a significant part of whom lead a traditional way of life. In the North of Russia for 1990-2018. the fishing territories of indigenous residents decreased by 47.5% due to the expansion of oil and gas fields. An analysis of foreign experience indicates a search for adequate scenarios for the sustainable development of Arctic territories. Given the similarity of the natural and climatic conditions of Alaska, the North of Canada, Norway and Russia, there are noticeable differences in the development and development of these territories, not in favor of Russia (Table 1).

In the implementation of social policy in foreign countries and Russia, the differences in a number of indicators are not too great. Thus, in the US healthcare system, on average, 54% of services are provided at public expense. In Alaska this part is 70%, in the northern regions of Russia - 84%. In US colleges, 23% of students study for free, in Alaska - 40%, in Russia - 52%.

**Table 1. Production and sale of products from traditional crafts of indigenous peoples**

Index	Countries (2018-2022 average)			
	Russia – North Siberia	USA – Alaska	Canadian North	Norway
Volume of fish and seafood caught by indigenous people, thousand tons.	176.1	115.2	137.8	158.6
Annual catch per 1 indigenous resident, i.e.	5.4	9.4	7.6	10.3
Share of fish caught by indigenous people in total fish caught, %	9.5	10.3	6.8	11.5
Average retail price of 1 kg of fish and seafood, US dollars	18.3	14.5	16.6	25.8
Volume of venison production, tons per year	3163	1446	918	1167
Venison production per indigenous person, kg/year	97	118	105	125
Retail price of 1 kg of venison, USD	24.8	15.7	30.1	38.5
Sales volume of fur produced by indigenous people in foreign and domestic markets, million US dollars	2.6	3.1	2.8	2.9

The system of privileges for the local population in the state of Alaska, the northern provinces of Canada, and the polar regions of Norway differs from the Russian one. It provides for the exemption of individuals from taxes. In Russia, in particular in the Russian Arctic, in 2019, on an initiative basis, a decision was made to exempt residents of the Arctic regions from a number of taxes. The issue of zeroing out transport tax, property tax for individuals, and land tax is also being resolved at the legislative level. Financial support for agricultural territories in Russia is carried out in line with the national policy of

protecting agricultural labor. In Alaska, stimulation of the development of the meat food supply, dairy, and poultry farms can be considered evidence of social care. From a pragmatic point of view, there is no particular need for farms - food is delivered from Seattle literally within one day. But Alaskans prefer local products. Alaska's private capital makes contributions to the federal and regional treasuries, and also allocates funds for social needs, including supporting indigenous people in the amount of 40-50% of its income, which is significantly higher than in other states. In Russia, as part of the social and

## Impact Factor:

**ISRA (India) = 6.317**  
**ISI (Dubai, UAE) = 1.582**  
**GIF (Australia) = 0.564**  
**JIF = 1.500**

**SIS (USA) = 0.912**  
**PIIHQ (Russia) = 3.939**  
**ESJI (KZ) = 8.771**  
**SJIF (Morocco) = 7.184**

**ICV (Poland) = 6.630**  
**PIF (India) = 1.940**  
**IBI (India) = 4.260**  
**OAJI (USA) = 0.350**

environmental responsibility of business, measures are also being taken to support the indigenous inhabitants of the North at the expense of mining companies. Comparing the similarities and differences in the paths of socio-economic development of the northern territories of Russia and other countries, one should note a common main feature: external support for the economy and life of the population living in the extreme conditions of the North. In the state of Alaska, the northern provinces of Canada, and Norway, support is actively provided by large and medium-sized capital, for which, in turn, the state uses economic, administrative and legal incentives to provide such support. In Russia, support measures are currently carried out mainly by the state at the expense of federal and regional budgets. The most important urgent tasks of the socio-economic development of the North in the near future include:

- \*growth of industrial production, including high-tech;
- \*preservation and general improvement of the environment, especially in places where people live;
- \*development of ecological and ethnological tourism;
- \*preventing demographic desertification of territories, entailing geopolitical losses for the country.

The implementation of these tasks is provided for in the regional development strategies of the Russian Arctic until 2035.

According to prospective estimates, as a result of the implementation of measures to support traditional crafts, the procurement of wild reindeer meat in the Russian Arctic will increase by 2024 to 1000 tons in slaughter weight. Supporting low-power projects for deep processing of fish and the production of fish products with high added value or with unique consumer properties, as well as feed from production waste, will also improve the resource base for the production of raw materials and finished products in the region's agro-industrial complex.

The development of a system for the procurement of antlers, furs, processing of reindeer husbandry and hunting products is also aimed at creating conditions for the production and sale of export-oriented products. In this regard, measures are envisaged to economically stimulate deep waste-free processing of reindeer herding products and provide financial support (in the form of subsidies) for the purchase of slaughterhouses and the organization of the collection of endocrine enzyme raw materials from reindeer herds. The Arctic regions are very favorable for cage-based fur farming from the point of view of the availability of food resources (trash fish and waste from the fishing industry). Breeding caged animals (sable, silver-black fox of the Norwegian type), the skins of which are in demand raw materials for light industry enterprises and the most export-oriented type

of fur raw material, will diversify production, strengthen inter-industry ties, and create new jobs in the Arctic regions. It is estimated that from 2024, the processing and production of fur products and leather and fur raw materials could reach 85 million units annually.

The assessment of the berry, mushroom and herbal potential of the Russian Arctic shows that the possible annual volumes of procurement of medicinal raw materials, berries, mushrooms and nuts here are respectively 36 tons, 3993.8 tons, 2112.5 tons and 2220.0 tons. At the same time, in the Arctic regions, the collection and procurement of plant resources for personal consumption of the population is recommended. The Russian Arctic is also implementing a research program on the formation of food technologies and diets based on traditional products of the North. In the centers of municipal districts, it seems appropriate to develop the processing industries of the agro-industrial complex, including the processing of meat, dairy products and fisheries products, by creating a full cycle of "production – processing – sale" with the introduction of modern technologies at all stages of the product life cycle. The development of traditional industries of the North (cattle and horse breeding, animal husbandry) is associated with the need to provide the local population with meat, fish and milk of their own production, food security in this region. Northern deliveries still have a special role in ensuring food security in the Arctic regions - a guaranteed supply of fuel and energy resources and food to the settlements of the Russian Arctic. The government annually approves the need for the delivery of life-sustaining goods in the context of municipalities and major enterprises. The list of socially significant food products includes 12 items: flour, pasta, vegetable oil, cereals, tea, salt, sugar, meat and fish products, powdered and condensed milk, processed and canned fruits and vegetables. In addition, the range of these food products includes baby food, milk and dairy products, eggs, vegetables and melons, fresh fruits, margarine, sausages and confectionery. The number of settlements in the regions of the Russian Arctic, to which delivery of socially important food products is provided, includes 268 settlements, of which 97 settlements are AZ Sakha (Yakutia).

Supporting projects for the development of traditional crafts, the production and purchase of food products from local raw materials will not only reduce the severity of the problem of northern imports, but also create the prerequisites for the supply of traditional crafts products to other regions of the country and abroad, taking into account the high environmental standards of such products. In this regard, the experience of a number of mining companies (Almazy Anabara JSC, Arctic Capital LLC) in purchasing products from traditional crafts, food products for their own needs, as well as financing

## Impact Factor:

<b>ISRA (India)</b>	<b>= 6.317</b>	<b>SIS (USA)</b>	<b>= 0.912</b>	<b>ICV (Poland)</b>	<b>= 6.630</b>
<b>ISI (Dubai, UAE)</b>	<b>= 1.582</b>	<b>ПИИИ (Russia)</b>	<b>= 3.939</b>	<b>PIF (India)</b>	<b>= 1.940</b>
<b>GIF (Australia)</b>	<b>= 0.564</b>	<b>ESJI (KZ)</b>	<b>= 8.771</b>	<b>IBI (India)</b>	<b>= 4.260</b>
<b>JIF</b>	<b>= 1.500</b>	<b>SJIF (Morocco)</b>	<b>= 7.184</b>	<b>OAJI (USA)</b>	<b>= 0.350</b>

projects for the processing of such products within the framework of Agreements on Social-economic development of the territory between the mining company, local authorities, indigenous people and their tribal communities.

In the agricultural sector, measures are envisaged to stimulate employment and self-employment of the population, organize the purchase of commercial products in regional centers, create infrastructure (logistics centers, purchase of transport for transportation), modernize production by creating complexes for advanced processing of reindeer herding and fishing products. The implementation of the project “Construction of trade and logistics centers” with the assistance of the Far East Development Fund, the development of a regional law on trading posts will radically improve the food security of the AZ regions of the Russian Federation.

Solving the set tasks for the development of the agro-industrial complex is closely related to the construction of affordable, energy-efficient, safe and comfortable housing suitable for Arctic conditions. In the regions of the Russian Arctic, it is planned to implement the “Model House for the Arctic” project, which meets modern requirements for wear resistance, rapid construction, energy efficiency, and environmental friendliness in the Arctic.

An important task is the implementation of the “Workforce for the Arctic” project. It provides for the expansion of vocational training, retraining and advanced training programs for the adult population, as well as the opening of new professions and specialties, such as “Reindeer Herder-Mechanist”, “Huntsman”, “Taxidermist”, “Commercial Hunter”, “Chuma Mistress”.

The project for the modernization of the reindeer husbandry and fisheries industries involves the continuation of the implementation of subprograms for the competitive distribution of state budget funds for the regions of the Russian Arctic for the acquisition of objects for the modernization of industries (fishing bases, slaughterhouses, refrigeration equipment, all-terrain vehicles, etc.) with an increase in the share of co-financing of the initiator of the application, which will allow increasing the annual volume of fish catching to 6000 tons and the volume of deep processing of fish by 2024 - up to 2000 tons. The project “Model territories of indigenous peoples of the North” deserves special attention, the goal of which is to create a model territory with the official status of “cluster of traditional management of indigenous peoples of the North” in the central part of the Zhigansky district. This model territory provides for the creation of an economy that will be based on the integrated use of local natural resources, the production of environmentally friendly products and the provision of tourism services.

The experience of the Russian Arctic regions in conducting ethnological examination of projects deserves attention and dissemination at the federal level. This approach involves harmonizing the interests of mining companies, local authorities and indigenous people when implementing projects for the industrial development of the Arctic. As part of compensation for potential losses to the indigenous peoples of the North during the economic development of territories of traditional natural resource use, mining companies make compensation payments, part of which can be used to support traditional crafts, develop production facilities for processing agricultural raw materials, and create infrastructure facilities. This approach corresponds to the implementation of the principle of obtaining and using benefits during the industrial development of the Arctic.

Coordination and monitoring of the implementation of the “Strategy for the socio-economic development of the regions of the Russian Arctic for the period until 2035” is carried out by the Ministry for the Development of the Arctic and the Affairs of the Peoples of the North. As target indicators for the implementation of this Strategy, we can note maintaining the level of natural growth and reducing the migration outflow of the population, reducing the level of general unemployment to 5.7%, increasing the standard of living of the population of the Russian Arctic regions by 1.8 times compared to the base level. Over the past 10 years, the concept of the blue economy has become quite widespread. Gradually, humanity is coming to realize the exceptional role of the World Ocean in the natural complex of the Earth, understanding that the rapid degradation of its ecosystems and the depletion of the resource base due to increasing environmental and economic pressure inevitably have a negative impact on the well-being and health of people. The World Wildlife Fund estimates the global value of the oceans at 24 trillion dollars. According to FAO estimates, the oceans and seas provide food for 10–12% of the world's population, and according to the IPCC, the oceans absorb 30% of the carbon dioxide produced by humans. If managed sustainably based on the UN Sustainable Development Goals, the world's oceans could produce six times more food and 40 times more renewable energy than currently. This will lift millions of people out of poverty, improve economic and environmental sustainability, build the industries of the future and produce low-carbon fuels and food.

Despite the lack of a unified formalized understanding of the content of the concept of “blue economy”, it can be noted that what is common to both national and international approaches is the recognition that this concept is aimed at the systematic and sustainable development of economic sectors related to the use of the resources of the World Ocean and seas, while maintaining a balance between

## Impact Factor:

ISRA (India) = 6.317  
ISI (Dubai, UAE) = 1.582  
GIF (Australia) = 0.564  
JIF = 1.500

SIS (USA) = 0.912  
ПИИИ (Russia) = 3.939  
ESJI (KZ) = 8.771  
SJIF (Morocco) = 7.184

ICV (Poland) = 6.630  
PIF (India) = 1.940  
IBI (India) = 4.260  
OAJI (USA) = 0.350

economic growth and environmental safety. According to the World Bank classification, the main economic activities related to the blue economy are the fishing and trade of living marine resources, the extraction of non-living and non-renewable natural resources (offshore and deep-sea mining of minerals and energy resources), renewable energy, maritime transport, trade, tourism and other types of commercial activities using the potential of the World Ocean [The concept of the “blue economy”. An extremely important aspect of the blue economy is to take measures aimed at reducing the negative human impact on the ecology of the seas and oceans. To this end, many coastal states (such as EU countries, India, Indonesia, Canada, Norway, China, etc.), as well as international organizations (UN, OECD, G20, APEC, Arctic Council, etc.) are developing various strategies and initiatives aimed at creating sustainable management of the World Ocean. Russia also takes part in the development of initiative projects by these international organizations. First of all, this concerns issues of sustainable development of the Arctic, since Russia is the largest Arctic state. In addition, it has mastered and uses the Northern Sea Route, which today has no analogues in the world, including other Arctic countries (USA, Canada, Norway, Sweden, etc.).

### Main part

The Arctic zone of the Russian Federation, in accordance with the Spatial Development Strategy, is classified as a geostrategic territory, i.e. territories that are essential for ensuring sustainable socio-economic development, territorial integrity and security of Russia, characterized by specific living conditions and economic activities.

The country's leadership attaches great importance to the development of Arctic territories for several reasons. First of all, this is a matter of ensuring the national security of the northern borders, especially given the position of the United States, which insists that the Arctic should be open to the peaceful passage of ships from third countries, as well as scientific development. This problem has a long history associated with the peculiarities of both the international legal status of the Arctic, enshrined in the 1982 UN Convention on the Law of the Sea (UNCLOS), and the determination of the boundaries of first the USSR and then Russia in the Arctic. The USSR relied on the right of historical ownership of Arctic waters, since Russia, starting from the 16th century (and even earlier), was actively involved in the study of Arctic territories and the development of northern sea routes. Since the time of Veliky Novgorod, the seas of the Arctic Ocean have been internal waters used exclusively by Russia for inland navigation. Accordingly, based on the international concept of historical straits, the USSR significantly expanded the boundaries of its internal waters, and,

accordingly, the boundaries of the territorial sea and the exclusive economic zone, establishing a permitting procedure for passage through them and a mandatory requirement for pilotage and icebreaker assistance.

The United States, in turn, does not recognize these demands as legal. They attempted to cross the territory of the USSR exclusive economic zone in the Arctic back in the 1960s. So, during 1963–1964. The United States carried out oceanographic research in the waters of the Soviet Arctic, between the Barents and Chukchi seas, which prompted the USSR government to tighten the shipping regime in the Arctic zone. However, the United States abandoned attempts to pass through the disputed territories, most likely due to its own technical unpreparedness.

It should be noted that not only the USSR, but also Canada insisted on recognizing its full sovereignty in relation to the Arctic territories. And just like the USSR, the Canadian government expanded its territory by straightening the border lines and established strict requirements for passage through its waters. In addition, it was Canada that initiated the inclusion of Article 234 “Ice-covered areas” in UNCLOS, according to which “Coastal States have the right to enact and enforce non-discriminatory laws and regulations to prevent, reduce and control pollution of the marine environment from ships in ice-covered areas in within the exclusive economic zone, where particularly harsh climatic conditions and the presence of ice covering such areas for most of the year create obstacles or increased danger to navigation, and pollution of the marine environment could cause serious harm to the ecological balance or irreversibly disrupt it.” Thus, this norm provided the Arctic states with the opportunity to establish their own rules for navigation in Arctic waters, if necessary, providing for more stringent rules than the norms of international law. At the same time, national legislation in this part will have priority over international law. However, the United States does not recognize this interpretation, demanding that its ships be granted the right of innocent passage and accusing Russia of violating international law. This poses a whole range of national security challenges for Russia, including:

a) attempts by a number of foreign states to revise the basic provisions of international treaties regulating economic and other activities in the Arctic, and to create systems of national legal regulation without taking into account such treaties and regional cooperation formats;

b) the incompleteness of the international legal delimitation of maritime spaces in the Arctic;

c) obstruction of the Russian Federation from carrying out legal economic or other activities in the Arctic by foreign states and (or) international organizations;

## Impact Factor:

**ISRA (India) = 6.317**  
**ISI (Dubai, UAE) = 1.582**  
**GIF (Australia) = 0.564**  
**JIF = 1.500**

**SIS (USA) = 0.912**  
**ПИИЦ (Russia) = 3.939**  
**ESJI (KZ) = 8.771**  
**SJIF (Morocco) = 7.184**

**ICV (Poland) = 6.630**  
**PIF (India) = 1.940**  
**IBI (India) = 4.260**  
**OAJI (USA) = 0.350**

d) the buildup of military presence by foreign states in the Arctic and the increase in conflict potential in the region;

e) discrediting the activities of the Russian Federation in the Arctic.

Geopolitical tensions in the Arctic region are gradually increasing, which is not surprising. The Arctic has significant economic and natural potential. It is estimated to hold 1/4 of the world's undiscovered natural resource reserves (including metals, including precious ones), 1/4 of the world's natural gas reserves, and 10% of the world's hidden oil reserves. In addition, as the eternal ice melts, the use of the Northern Sea Route (NSR) as an international transport artery connecting Europe with Asia is becoming increasingly promising. However, we must not forget that the Arctic territories are very specific; they require a careful attitude towards nature and a special attitude towards human capital. Therefore, in this region, more than anywhere else, it is important to ensure sustainable development, which implies a balance between economic, social and environmental goals. It is this approach that is reflected in the Fundamentals of the State Policy of the Russian Federation in the Arctic, which identified the following goals for its development, namely:

a) improving the quality of life of the population of the Arctic zone of the Russian Federation, including people belonging to small peoples;

b) accelerating the economic development of the territories of the Arctic zone of the Russian Federation and increasing their contribution to the economic growth of the country;

c) environmental protection in the Arctic, protection of the original habitat and traditional way of life of small peoples;

d) implementation of mutually beneficial cooperation and peaceful resolution of all disputes in the Arctic on the basis of international law;

e) protection of the national interests of the Russian Federation in the Arctic, including in the economic sphere.

According to the report of A.V. Krutikov, Deputy Minister of the Russian Federation for the Development of the Far East and the Arctic at the V International Conference “The Arctic: Shelf Projects and Investment Development of Regions” in 2020, this department focuses on attracting private investment. Thus, a package of legislation was developed and adopted that created a special economic regime for the Arctic zone of Russia with a wide range of tax and non-tax preferences, which are designed to reduce risks and increase the profitability of investments in Arctic projects, making them attractive to private investors. First of all, this applies to the mining industry, for which benefits from the mineral extraction tax (MET) have been established. According to the Russian Ministry of Energy, this will help launch nine largest projects in the Arctic with an

investment volume of 15 trillion. rub. Indeed, today Russia is the only country in the world that is developing deposits within the Arctic territory, covered with eternal ice, as well as deposits on the shelf of the seas of the Arctic Ocean. Based on the exploitation, first of all, of Arctic gas fields, the Russian government planned to increase LNG production to 70 million tons per year by 2035, which would make the country practically a leader in this industry. According to A. Novak, who was the Minister of Energy in 2017, in the period until 2035, Russia can increase the share of LNG from “today’s 4% to 15–20% of the world market.”

The resources of the Russian Arctic also include copper-nickel ores, tin, rare metals and rare earth elements, gold, platinum group metals, tungsten, chromium, titanium and a number of other minerals in demand in modern high-tech industry. Therefore, as part of the Arctic development strategy, it is planned to implement incentive tools for the creation of not just extractive industries, but enterprises for the deep processing of these minerals.

At the same time, practically no attention is paid to the environmental consequences of such active industrial development of the Arctic zone. Although, as the experience of the Soviet period showed, such an approach can lead to extremely negative environmental consequences for the very fragile ecosystem of the region. At the same time, it must be admitted that many Russian companies have recently been paying increasing attention to issues of social responsibility. For example, the Rosneft company is implementing the largest Arctic exploration program since Soviet times. Since 2018, about 30 scientific expeditions have already been carried out along the entire coast of the Arctic Ocean to study glaciers and icebergs, marine and coastal zones, and rare species of animals and birds. The purpose of such a detailed study of the environment is, among other things, to ensure the conservation of biodiversity during the implementation of investment projects. However, so far these are only individual private initiatives. Whereas when developing Arctic resources, it is necessary to constantly adhere to an integrated approach that combines the introduction of modern resource- and energy-saving technologies, environmental monitoring, infrastructure development and projects in the social sphere. The most significant limiting factor for the development of both the mining and processing industries in the Russian Arctic is the lack of modern infrastructure, primarily transport and energy. In this regard, regulations have been adopted aimed at stimulating investment in its development. In particular, with the volume of investments in infrastructure projects starting from 300 million rubles, a subsidy of up to 20% of private investment is provided. In May 2020, the “Capital of the Arctic” priority development territory (ADT) was created in the Murmansk region.

## Impact Factor:

ISRA (India) = 6.317  
ISI (Dubai, UAE) = 1.582  
GIF (Australia) = 0.564  
JIF = 1.500

SIS (USA) = 0.912  
ПИИИ (Russia) = 3.939  
ESJI (KZ) = 8.771  
SJIF (Morocco) = 7.184

ICV (Poland) = 6.630  
PIF (India) = 1.940  
IBI (India) = 4.260  
OAJI (USA) = 0.350

It united NOVATEK-Murmansk LLC with the investment project “Center for the Construction of Large-Capacity Marine Facilities”, LLC “Lavna Commercial Sea Port” with the investment project “Construction of a new coal terminal in the Lavna Commercial Sea Port on the western shore of the Kola Bay”; LLC "Marine Terminal TULOMA" with an investment project to create a terminal for mineral fertilizers and apatite concentrate in the seaport of Murmansk; JSC "Murmansk Region Development Corporation" with an investment project to create an international cultural and business center to realize the geopolitical and cultural potential of the region.

According to the Transport Strategy of the Russian Federation until 2035, it is planned to expand the Northern Latitudinal Railway (a railway under construction in the Yamalo-Nenets Autonomous Okrug) through directions towards the city of Norilsk to ensure transport communications and form a railway junction between the Trans-Siberian Railway and the Northern Sea Route. The development of the NSR itself and the attraction of additional volumes of transit cargo depends on ensuring its year-round use and competitive transportation costs compared to the Suez Canal. The competitiveness of the NSR may increase over time as a result of the negative impact of climate change on ports in more southern countries. Located on open coasts or in low-lying estuaries and estuaries, they are already being negatively impacted by rising sea levels, storm surges, waves and winds, as well as river and rain-fed flooding. As noted by the UNCTAD secretariat, damage to port infrastructure and/or operational disruptions and disruptions could negatively impact trade and energy supplies, with widespread negative consequences for international supply chains. Accordingly, this will force many logistics companies to pay attention to the NSR as an alternative to the southern sea route through the Suez Canal. However, the main task of the NSR today is transport support for the domestic mining industry. Thus, according to the forecast of the Ministry of Natural Resources and Environment, “the main driver of economic development in the Arctic zone is the development of natural resources, mainly minerals. Transportation of extracted mineral raw materials determines the main volumes of cargo traffic in the Northern Sea Route - from the Kara to the Chukchi Seas.” Accordingly, by 2035, it is planned to transport 41 million tons of mineral resources per year along the NSR. In the future, the NSR should become part of the Northern Sea Transit Corridor (NSTC) between Europe and Asia - a container line project from Murmansk to Petropavlovsk-Kamchatsky. According to the Strategy for the development of the Arctic zone of the Russian Federation and ensuring national security for the period until 2035, the priority task for the development of the Russian Arctic is the comprehensive development of the infrastructure of sea ports and sea shipping routes in the waters of the

Northern Sea Route, the Barents, White and Pechora seas, the creation of a terminal in the seaport of Murmansk mineral fertilizers and apatite concentrate (LLC Marine Terminal TULOMA); creation of an international cultural and business center to realize the geopolitical and cultural potential of the region (JSC "Murmansk Region Development Corporation"). The Rusatom Cargo and Rosatom companies are already developing plans to transfer cargo flows to the NSR, as well as to establish hub ports in Murmansk and Petropavlovsk-Kamchatsky for container transportation. Rosatom and Roscosmos are engaged in the creation of a satellite constellation necessary to ensure navigation in the SMTC waters. Besides, It is planned to build at least five universal nuclear icebreakers of Project 22220, three nuclear icebreakers of the Leader project, 16 rescue and towing and rescue vessels of various capacities, three hydrographic and two pilot survey vessels. Programs for the construction of cargo and cargo-passenger ships for transportation between sea and river ports in the Arctic zone should be developed and approved, and the capabilities of navigation on the rivers of the Arctic zone should be expanded, including dredging, construction of ports and port points. Taking into account the geopolitical problems outlined above, it is fundamentally important for Russia to maintain its sovereignty and control capabilities throughout the entire length of the SMTC, including by maintaining the permitting procedure for the passage of foreign ships and mandatory pilotage and icebreaker assistance. However, this is legally difficult: only the NSR waters fall under Article 234 of UNCLOS, since the Barents, White and Pechora Seas do not have permanent ice cover. That is why the very term “Northern Sea Transit Corridor” was excluded from the draft Strategy for the Development of Regions of the Arctic Zone of the Russian Federation.

However, in relation to the NSR, the regulatory framework of the Russian Federation contains the indicated provisions. In addition, in accordance with the Merchant Shipping Code of the Russian Federation, transportation along the NSR of oil, natural gas (including LNG), gas condensate and coal produced in Russia, including the Russian shelf, must be carried out under the Russian flag. Since January 2019, the Russian government has also required that all new ships operated by Russian companies in the Russian Arctic be built in Russian shipyards. For this purpose, in the Primorsky Territory, a consortium of investors led by PJSC NK Rosneft built the Zvezda shipbuilding complex (SSK Zvezda), specializing in the construction of Arctic vessels, in particular, icebreaking gas tankers intended for transporting LNG and capable of working in arctic conditions. Contracts for the construction of 15 such vessels, intended for the removal of cargo from the Arctic LNG-2 plant, were concluded by the Zvezda Shipbuilding Complex and the state development



## Impact Factor:

<b>SISRA (India)</b>	<b>= 6.317</b>	<b>SIS (USA)</b>	<b>= 0.912</b>	<b>ICV (Poland)</b>	<b>= 6.630</b>
<b>ISI (Dubai, UAE)</b>	<b>= 1.582</b>	<b>ПИИИ (Russia)</b>	<b>= 3.939</b>	<b>PIF (India)</b>	<b>= 1.940</b>
<b>GIF (Australia)</b>	<b>= 0.564</b>	<b>ESJI (KZ)</b>	<b>= 8.771</b>	<b>IBI (India)</b>	<b>= 4.260</b>
<b>JIF</b>	<b>= 1.500</b>	<b>SJIF (Morocco)</b>	<b>= 7.184</b>	<b>OAJI (USA)</b>	<b>= 0.350</b>

corporation VEB. RF in December 2019 - July 2020. In addition, the complex received an order for the construction of 12 Aframax class tankers and 12 shuttle tankers with a deadweight of 42 to 120 thousand tons. By 2024, it is planned to increase cargo flow along the NSR to 80 million tons, and in the period 2025–2035 It is expected to ensure year-round navigation throughout the entire NSR water area. However, it is too early to talk about turning the NSR into a full-fledged transit route for several reasons. Indeed, the route along the NSR is 40%, i.e. almost 4 thousand nautical miles shorter than the traditional transit route through the Suez Canal. However, this does not mean financial savings of 40%, namely:

Firstly, the Arctic Ocean is quite shallow. Accordingly, new generation container ships with a carrying capacity of more than 18 thousand TEU cannot navigate it. The maximum carrying capacity of ships that can sail along the NSR is 4000 TEU. At the same time, these must be ships of a sufficiently high ice class (minimum Arc5). Finally, the cost of mandatory pilotage and icebreaker assistance is quite high and costs more than the fee for transiting the Suez Canal. However, the latest demands from the Russian authorities are justified, since a decrease in Arctic ice cover does not at all mean an improvement in navigation conditions. Icebergs and drifting ice pose a serious hazard to navigation. Due to a decrease in the thickness of the ice cover and its extent, the ice becomes more mobile, the drift speed increases, and the behavior of the ice becomes more dynamic and less predictable;

secondly, many issues of technical support for navigation along the NSR remain unresolved, in particular:

- The NSR is still not fully mapped, as a result of which there are no detailed maps even in Russian (there are no maps at all in English), the number of electronic maps for the NSR is limited;

- the region does not have stable communications coverage, and the satellite communications capacity is insufficient (the deployed constellation of satellites of the Russian Ministry of Defense is not intended for civilian needs);

- it is necessary to increase the number of long-range unmanned aerial vehicles to solve a whole range of navigation safety problems along the NSR;

- the port infrastructure is outdated and requires urgent major repairs and reconstruction; protective structures, warning and warning systems have fallen into disrepair due to lack of proper control;

- in ports it is necessary to deepen the seabed to make it possible to receive modern ships, as well as expand technical capabilities to provide services for bunkering ships, collecting wastewater and solid waste;

- spills of oil products and chemicals pose one of the most serious environmental threats in the Arctic, and due to the inaccessibility of the territories

and the lack of reliable communications, the removal of such pollution is extremely difficult;

- The lack of open official information about incidents (accidents and incidents) on the NSR prevents the formation of insurance products by insurance companies and limits the possibilities for insuring ships, cargo and liability for damage caused to the environment. The lack of insurance is a serious barrier for many transport companies.

Thus, the prospects for the development of the NSR as a transit corridor are still very distant and involve attracting a significant amount of investment, which is becoming increasingly difficult in the context of anti-Russian sanctions and growing geopolitical tensions. A possible option is to attract Chinese investment as part of the “One Belt, One Road” project. However, today only the Yamal LNG and Arctic LNG-2 projects in combination with the construction of the Sabetta port can be considered successful. For the rest of the NSR and SMTC as a whole, no significant agreements have yet been reached. This is partly due to differences in the approaches of China and Russia to the issue of the passage of ships of third countries in the Arctic. China, having declared itself an “Arctic” and “responsible” country, advocates granting third countries the right of free and peaceful passage in the Arctic for both commercial and scientific purposes. However, this runs counter to Russia’s position stated above. In addition, in the White and Barents Seas, Russia’s competition with its western neighbors is intensifying, which are also attracting China’s attention (especially Greenland and Iceland). Finally, China is not interested in using the Russian icebreaker fleet, since it intends to build its own. The relationship between Russia and China on the development of the Arctic cannot be called simple. Our countries have both common interests in the implementation of joint investment projects, and quite significant contradictions that require the search for a difficult compromise.

It is expected that the intensification of investment activity in the Arctic region will help solve social problems, such as improving the level and quality of life of the local population. Indeed, as foreign experience, for example, Norway, shows, the implementation of oil production projects can have a significant positive effect on the entire region. Thus, from the very beginning of the development of the Snovit field, the Norwegian authorities created conditions that made it possible not only to receive economic benefits from oil production, but also to develop their own technologies, and, consequently, to obtain a multiplier effect from the development of a chain of related industries. Accordingly, when implementing projects for the development of hydrocarbon resources on the shelf of the Russian Arctic, the main priorities of state regulation of the oil and gas complex should be aimed at creating

## Impact Factor:

**ISRA (India) = 6.317**  
**ISI (Dubai, UAE) = 1.582**  
**GIF (Australia) = 0.564**  
**JIF = 1.500**

**SIS (USA) = 0.912**  
**ПИИЦ (Russia) = 3.939**  
**ESJI (KZ) = 8.771**  
**SJIF (Morocco) = 7.184**

**ICV (Poland) = 6.630**  
**PIF (India) = 1.940**  
**IBI (India) = 4.260**  
**OAJI (USA) = 0.350**

conditions for the “participation” of the fuel and energy complex in solving a wide range of socio-economic problems of the state. The experience of leading oil and gas powers indicates that over the past 20–30 years, approaches to integrating the tasks of developing hydrocarbon resources with solving a wide range of socio-economic problems have been developed and successfully implemented in the world. Such approaches involve a shift in emphasis from the analysis of assessing exclusively the financial and economic consequences of project implementation to the socio-economic results of their implementation.

Today, the Arctic region is characterized by population outflow. As N.A. emphasizes Roslyakov, this is due to the fact that the Soviet tradition of Arctic development, based on the development of small towns and cities, did not fit into the new concept of economic growth and development on the principles of global competitiveness, in which megacities received a special advantage. The consequence was the bankruptcy and curtailment of the activities of a large number of enterprises in the Arctic, the decommissioning of hundreds of airports and the transfer of aviation to a commercial payback regime, which sharply reduced the transport accessibility of the territories and the mobility of the population, and provoked the closure of many social institutions. In modern government strategic documents on Arctic development, the first priority is to improve the quality of life of the local population. However, neither in existing documents nor in political circles is there a clear understanding of whether the development of the NSR is an end in itself (the final goal) or is it only a tool for ensuring the socio-economic development of the Arctic itself, improving the level and quality of life in it, and creating attractive working conditions .

Although the answer to this question directly determines the solution to the problems of settlement and development of the Arctic, which is characterized by difficult living conditions, both due to climatic conditions and as a result of the policies of recent decades, which have led to the absence or insufficiency of critical social infrastructure (especially healthcare). As a result, the region's death rate is much higher than many other regions of the country. The second critically important area is quality education, the absence of which deprives the local population of the opportunity to obtain knowledge and competencies in demand on the labor market or to improve their skills. In this regard, a gap arises in the labor market and unemployment is growing among the local population, whose skill level does not meet the requirements for opening new modern enterprises. On the other hand, it is difficult to attract highly qualified personnel to the Arctic, which it urgently needs. The problem of unemployment in the Arctic zone of Russia is also largely due to the closure of many city-forming enterprises and the

change in pre-existing economic models after the transition to a market and the liberalization of foreign trade activities. A striking example is the fishing industry, which is currently characterized by a high level of exports. Thus, in the Murmansk region, at least 80–85% of the catch is exported. As a result, from 1990 to 2017, the cargo turnover of the Murmansk port for fish products decreased by 5.6 times, the number of employees - by 9.9 times. Almost all ship repair enterprises have closed, since most of the vessels fishing near the borders of the Murmansk and Arkhangelsk regions undergo repairs and maintenance in foreign ports where they deliver their catch. Ship repair activities in the Murmansk region are carried out by several small organizations and are limited to servicing small, undersized and, in small quantities, medium-sized fishing vessels. The average annual load of the main production (fillet and clipfish) of coastal fish processing enterprises does not exceed 40–45%. At the same time, the cost of raw materials (semi-finished products) in the cost structure reaches 65–70% (due to the export orientation of fish production), which determines the high level of product prices. Containers for canned fish are also no longer in demand, so only those enterprises that managed to diversify their production survived. A significant reduction in the number of employees also occurred in industry research institutes and design organizations.

Within the framework of the Arctic Zone Development Strategy, the development of the fishing industry is mentioned. Even before this, in 2016–2017 decisions were made to create fishing clusters in the Arkhangelsk, Kaliningrad and Murmansk regions. However, so far fishing organizations have not shown interest in their functioning. This is just one example that raises a whole range of questions about the socio-economic development of the Arctic territories. The main one - how much permanent population the Arctic needs and whether it is needed at all - still remains unanswered. Thus, the former plenipotentiary representative of the President of the Russian Federation in the Siberian Federal District S.I. Menyailo expressed the opinion that the Arctic is not a place of permanent residence for people. The opposite point of view is held by the Chairman of the State Duma Committee on Regional Policy and Problems of the North and Far East N.M. Kharitonov. In terms of ensuring security in modern complex geopolitical conditions, it is obvious that the Arctic territory should not only be economically developed, but also have a permanent population, at least in key points associated with the development of the Northern Sea Route. To do this, it is necessary to ensure transport connectivity of the Arctic with the rest of the country, accurately determine the places of permanent settlement of people (only in those territories that will attract investment and develop), and provide regulatory benefits not only for

## Impact Factor:

**ISRA (India) = 6.317**  
**ISI (Dubai, UAE) = 1.582**  
**GIF (Australia) = 0.564**  
**JIF = 1.500**

**SIS (USA) = 0.912**  
**ПИИИ (Russia) = 3.939**  
**ESJI (KZ) = 8.771**  
**SJIF (Morocco) = 7.184**

**ICV (Poland) = 6.630**  
**PIF (India) = 1.940**  
**IBI (India) = 4.260**  
**OAJI (USA) = 0.350**

investments in mining or large infrastructure projects, but also simultaneous construction of the necessary social infrastructure for the population that will serve the relevant enterprises (it does not matter - permanently resident or temporary), to work out mechanisms for relocating the permanent population of the Arctic to neighboring regions in which new projects are beginning to be implemented, instead of attracting employees from the central parts of the country. Particular attention must be paid to the problems of indigenous peoples who, among other things, are suffering from the loss of their traditional crafts as a result of climate change. Their way of life was formed in parallel with the evolution of the northern biocenosis, and therefore in itself is a guarantor of the sustainability of the entire Arctic ecosystem, in contrast to the artificially created technogenic environment. As a result, the preservation of traditional environmental management, the way of life of indigenous peoples and their communities is extremely important.

Analysis of the existing regulatory framework of the Russian Federation on Arctic issues, draft federal laws presented by the Ministry of Economic Development of the Russian Federation, which are designed to regulate its development, as well as the above-mentioned speech by A.V. Krutikova shows that in state policy, the sustainable development of the Arctic region, first of all, is primarily understood as the economic development of the territory. At the same time, the declared goal is to improve the quality of life of the local population (i.e. sustainable social development). The environmental component is limited to a few declarations in the main strategic documents.

At the same time, as all experts involved in climate change have noted, in recent decades the temperature in the Arctic has been rising twice as fast as in other parts of the Earth. In "various regions of the Arctic, warming ranged from 0.7 to 4 °C, and warming in winter exceeded this value in summer. The reduction in the total extent of Arctic ice is impressive: from 7.5 million km<sup>2</sup> in the late 1970s to 5.5 million km<sup>2</sup> in 2005. In 2007, a new record was set - 4.3 million square kilometers." The consequences of these processes have already begun to actively manifest themselves. Thus, in 2018, the Republic of Sakha (Yakutia) faced the worst flood in the last 18 years: 63 settlements were in the flood zone, the amount of damage amounted to 1.5 billion rubles. In 2020, in Verkhoyansk, known in the world as one of the cold poles of the Northern Hemisphere, an abnormal heat wave was recorded, never before observed in the Arctic Circle: +38 °C. In October 2020, for the first time in the entire history of observations, the Laptev Sea did not freeze in Yakutia. But the greatest risks today are associated with the thawing of permafrost (an increase in soil temperature at a depth of more than 10 m by 1 °C over the past 10

years). "Destabilization of permafrost leads to a decrease in its load-bearing capacity, which entails risks for structures and engineering infrastructure, which are at risk of more frequent emergencies and increased costs for repairs and maintenance." According to scientists, by the middle of the 21st century. Due to global warming and ground melting, up to 70% of the Arctic infrastructure may be damaged.

In turn, this attacks all three dimensions of sustainable development: economic, social and environmental. For example, in the Republic of Sakha (Yakutia) alone, in the permafrost thawing zone there are: 140 thousand residential buildings, 27.4 thousand km of roads, 525 km of railways, 6.3 thousand km of main pipelines, including 1.5 thousand km of the Eastern Siberia - Pacific Ocean oil pipeline, as well as 1.3 thousand km of the Power of Siberia gas pipeline. Accordingly, man-made accidents at these facilities will have catastrophic consequences not only for this region, but also for the economy of the country as a whole. Melting permafrost causes irreparable damage to agriculture. In particular, negative phenomena are observed on 60% of all agricultural lands of the Republic of Sakha (Yakutia) and 70% of its cultivated areas, on which 60% of agricultural products are produced. At the same time, the leading agricultural regions (Megino-Kangalassky, Churapchinsky, Ust-Aldansky) are already beginning to lose pastures and arable land due to degradation processes. In addition, as a result of the thawing of permafrost, ancient viruses and pathogens are being released, which the northern regions of Russia are already beginning to encounter. Thus, several years ago, an anthrax outbreak in the Yamal-Nenets Autonomous Okrug occurred precisely because of a thawed cattle burial ground from the middle of the last century. In addition, research shows that when permafrost thaws, followed by coastal erosion, large amounts of methane, carbon dioxide, organic carbon, nutrients and potential pollutants, particularly heavy metals, are released and released into the atmosphere and water. Studies of indigenous peoples living in the Russian Arctic have found highly toxic substances such as polychlorinated biphenol (PCB), lead and hexachlorobenzene (HCB) in the umbilical cords of newborn children and adult men and women, some of the highest levels in northern countries. At the same time, it should be taken into account that the Arctic, due to its geographical features, becomes a kind of dead end in which pollution brought by branches of Atlantic currents from the more densely populated regions of Europe and America accumulates. Thus, a study conducted by a group of American scientists showed that the content of plastic particles in Arctic waters is at the same level as other (industrialized) areas of the planet, and this indicates the transfer of particles with ocean currents. They particularly highlighted the concentration of microplastics in

## Impact Factor:

ISRA (India) = 6.317  
ISI (Dubai, UAE) = 1.582  
GIF (Australia) = 0.564  
JIF = 1.500

SIS (USA) = 0.912  
ПИИИ (Russia) = 3.939  
ESJI (KZ) = 8.771  
SJIF (Morocco) = 7.184

ICV (Poland) = 6.630  
PIF (India) = 1.940  
IBI (India) = 4.260  
OAJI (USA) = 0.350

Arctic sea ice (plastic particle content found to range from 38 to 234 particles per m<sup>3</sup>, which is significantly higher even compared to heavily polluted ocean currents). Microplastics were also found in marine life - fish (up to 34% of samples taken), mollusks, crustaceans (up to 100% of samples taken), etc.

Scientists emphasize that a significant part of microplastics enters Arctic waters from sea vessels. Most of the particles found consisted of polymethacrylamide, a thermoplastic widely used as an anti-fouling coating on ships, as well as anti-corrosion and waterproof coatings.

Another source of pollution in the Arctic is wastewater. In Russia, the largest discharge was recorded in the Republic of Sakha (Yakutia). In many of its settlements, wastewater is discharged either without treatment at all, or treatment facilities do not provide the appropriate level of treatment. The greatest pollution was recorded in the rivers Indigirka (very polluted with a high content of oil products, iron and manganese), Anabar (very polluted, with an excess of iron, copper, manganese), Kolyma (very polluted), Olenek (very polluted), and Lake Sulfidka (pollutants come from tailing dumps of tin ore deposits). Accordingly, all these substances then end up in the sea waters of the Arctic.

Finally, waste from the Soviet period of Arctic exploration still poses a serious problem. The All-Russian Research Institute for Environmental Protection counted 25 environmental hot spots in the Arkhangelsk region, 12 in the Yamalo-Nenets Autonomous Okrug (almost all abandoned and flooded objects in the waters of seas and rivers), six in the Murmansk region, three in the Chukotka Autonomous Okrug, Nenets Autonomous Okrug and Yakutia - two each. A total of 102 objects were identified. Among them are 33 landfills for household and industrial waste, as well as areas contaminated with petroleum products, and sites of accumulated damage from the mining industry. The main types of environmental waste were fuel, gasoline, waste oil residues, fuel and lubricants and containers for them, petroleum products, rusty aircraft and automobile equipment and household waste. Since this problem was recognized at the federal level (during a visit to Franz Josef Land in 2010, V.V. Putin announced the need for a "general cleaning" in the Arctic), the Ministry of Economic Development of Russia, the Ministry of Natural Resources of the Russian Federation, and the Ministry of Defense of the Russian Federation were involved in its solution, Russian Geographical Society, Polar Research Foundation "Polar Fund" and other organizations. As a result, during the period from 2018 to 2022, 40 thousand tons of waste were disposed of in the Arctic, and 200 hectares of land were reclaimed. The pilot region of the Arctic cleanup program was Franz Josef Land, where 44% of the accumulated waste has already been disposed of. However, due to a lack of funds, cleaning

up the Arctic is being delayed. Therefore, the Ministry of Natural Resources of the Russian Federation announced its intention to develop a new program for cleaning the Arctic zone worth 60 billion rubles. However, we are only talking about scrap metal collection. At the same time, today there are no plans for abandoned settlements, mines and tailings dumps (harmful substances from which seep and enter the soil and water bodies of the Arctic). In addition, in Yakutia alone, about 300 sunken ships need to be raised from the bottom of reservoirs. This requires an additional 9 billion rubles. Thus, "due to the limited capacity of the biosphere, the high vulnerability of Arctic landscapes and the low rate of their restoration, the ecological module of the spatial development of the Arctic acquires particular relevance, which must first of all be taken into account when developing scenarios for the development of the Arctic space."

However, within the framework of the current legal regulation, "the development of territories cannot be "ecologically friendly", since there are no criteria and understanding of "ecological development". On the contrary, "economic development" has a completely understandable and clear set of criteria, such as the level of well-being, the consumer basket, income, employment, infrastructure, gross national product and many other indicators. Therefore, strategic documents most often list development goals of an "economic" nature, and "environmental" ones are listed as either "restrictions" or "conditions", interpreted as "security". In any case, "security" and "development" are not identical concepts, and their provision has fundamentally different implications for law, governance, institutions and legal relations."

## Conclusion

The development priorities of the northern territories are based, on the one hand, on the need to effectively implement the tasks of developing the natural resources of the North, and on the other, on the preservation and further development of the indigenous ethnic group. At the same time, this means the possibility of optimizing the ratio of directions of economic development according to purely economic criteria and preserving the traditional way of life of the indigenous peoples of the North. Support and development of traditional environmental management are necessary, first of all, to preserve the ethnic group, the experience of people living in extreme natural conditions, to successfully resist them, to prevent demographic desertification of the Arctic territories and preserve unique landscapes. Also important is the preservation and development of the production of rare types of natural and highly sought-after consumer products - fish delicacies, game, venison, valuable pharmaceutical raw materials. All this is necessary to improve the quality of life and preserve human capital. Supporting these

## Impact Factor:

ISRA (India)	= 6.317	SIS (USA)	= 0.912	ICV (Poland)	= 6.630
ISI (Dubai, UAE)	= 1.582	ПИИЦ (Russia)	= 3.939	PIF (India)	= 1.940
GIF (Australia)	= 0.564	ESJI (KZ)	= 8.771	IBI (India)	= 4.260
JIF	= 1.500	SJIF (Morocco)	= 7.184	OAJI (USA)	= 0.350

territories is also important for guaranteeing the country's food independence, regulating employment and optimizing the labor market, preventing excessive concentration of industrial production in certain territories and dominance beyond urbanized places of residence.

As measures to support local food producers, it is useful to use the experience of some mining companies in purchasing products from traditional crafts, locally produced food products for their own needs, as well as in financing projects for processing such products within the framework of Agreements on the socio-economic development of the territory between the mining company and local authorities, indigenous people and their tribal communities.

An important effective compensation for changes in the natural and ethno-social living conditions of indigenous peoples in the process of industrial development of the North could be the expansion of the production of consumer goods, especially food products produced locally in order to increase their types and quality. Measures aimed at improving the quality of life of the population by improving living conditions, living conditions, and increasing employment of the local population can become the main means of resolving the opposing interests of indigenous residents and mining companies when implementing projects for the industrial development of the Arctic. The study shows that the development of the Arctic region of Russia in the coming years will most likely accelerate due to the expansion of the scale of natural resource extraction and the intensification of shipping on the Northern Sea Route. At the same time, the intensification of the use of NSR and SMTC in general has a number of limitations and risks, namely:

firstly, it is necessary to create a modern port, navigation and other technical infrastructure that will serve the movement of ships along the Northern Sea

Route and ensure the safety of navigation in the difficult conditions of Arctic ice. In addition, it is necessary to strengthen the connection of NSR ports with the interior of the country through the development of other modes of transport (rail, river, aviation and road). All this requires significant amounts of investment. However, in the context of growing geopolitical tensions and sanctions against Russia, the implementation of large infrastructure projects on our own seems difficult and can take many years and even decades.

The intensification of navigation and the intensive development of the mining industry are increasing the already strong anthropogenic pressure on the fragile ecosystems of the Arctic, in particular related to the pollution of Arctic waters. As a result of warming and thawing of permafrost, the risks of environmental and man-made disasters are increasing, which requires additional investments to improve the sustainability of infrastructure and buildings built or being built on frozen soils.

Secondly, at the same time, today there are no comprehensive scientifically based approaches to solving the issue of resettlement in the Arctic: where and in what quantity it is necessary to build housing; how and at whose expense to provide the existing population and those attracted to the Arctic with all the necessary social infrastructure or organize (if necessary and appropriate) the resettlement of residents from depressed settlements, which are not planned to be developed in the future, to new "points of growth"; how to increase transport connectivity of all Arctic territories among themselves and with other regions of the country, etc.

It seems that without a thorough scientific study of the complex of all these and many other issues, relying solely on the economic interests of the commercial development of the Arctic, it is simply impossible to ensure its sustainable development.

## References:

1. Leksin, V.N., & Porfiryev, B.N. (2019). Russian Arctic: logic and paradoxes of change. *Problems of forecasting*. 2019 No. 6 (177): 4-21.
2. Burtseva, E.I., Potravny, I.M., Gassiy, V.V., Sleptsov, A.N., & Velichenko, V.V. (2019). Issues of assessment and compensation of losses to indigenous peoples in the conditions of industrial development of the Arctic. *Arctic: economics and ecology*. 2019 No. 1(33): 27-42.
3. (2014). *Russian Arctic: modern development paradigm*. Ed. acad. A.I. Tatarkina. (p.844). St. Petersburg: Nestor History.
4. Burtseva, E.I., Potravny, I.M., Gassiy, V.V., et al. (2019). *Economics of traditional environmental management: interaction between indigenous peoples of the North and business in the Russian Arctic*. Ed. ed. E.I. Burtseva and I.M. Potravnogo. (p.318). Moscow: Economics.

**Impact Factor:**

**ISRA (India) = 6.317**  
**ISI (Dubai, UAE) = 1.582**  
**GIF (Australia) = 0.564**  
**JIF = 1.500**

**SIS (USA) = 0.912**  
**ПИИЦ (Russia) = 3.939**  
**ESJI (KZ) = 8.771**  
**SJIF (Morocco) = 7.184**

**ICV (Poland) = 6.630**  
**PIF (India) = 1.940**  
**IBI (India) = 4.260**  
**OAJI (USA) = 0.350**

5. (2023). *Current problems of environmental protection in the Arctic: interaction of international and national law*. Kodolova A.V., Solntsev A.M., Otrashvskaya A.M., Yusifova P.N. kyzy. Electronic network publication "International Legal Courier", Retrieved 10/18/2023 from <http://inter-legal.ru/aktualnye-problemy-zashhity-okruzhayushhej-sredy-arktiki-v-zaimodejstvie-mezhdunarodnogo-i-natsionalnogo-prava>
6. Vasiliev, A.M. (2023). Features of clustering in fisheries using the example of fisheries in the Northern Basin and the Murmansk region. *Arctic and North*, 2020 - No. 41, pp. 21-37, <https://cyberleninka.ru/article/n/osobennosti-klasterizatsii-v-rybnom-hozyaystve-na-primere-rybnogo-hozyaystva-severnogo-basseyna-i-murmanskoy-oblasti/viewer>
7. Gubina, O.V., & Provorova, A.A. (2019). Approaches and principles to the development of scenarios for spatial environmental and economic development of the Arctic regions of Russia. *Bulletin of the Altai Academy of Economics and Law*, 2019 - No. 11, pp. 39-47.
8. Zhavoronkova, N.G., & Agafonov, V.B. (2019). Legal support for environmental safety of the Arctic zone of the Russian Federation during the implementation of genomic technologies. *Lex Russica*, 2019 - No. 6, pp. 61-70.
9. Lukyanets, A.S. (2021). The problem of climate migrants: the situation in the Arctic. Part 2. *Bulletin of the Altai Academy of Economics and Law*, 2021 - No. 12, pp. 333-340.
10. Maksimova, D.D. (2020). Sustainable development of the Arctic zone of the Russian Federation: problems and prospects. *ARCTIC - 2035: current issues, problems, solutions*, 2020 - No. 2, pp. 30-37.
11. Roslyakova, N.A. (2020). Prospects for the development of the Arctic: main contradictions. *Economic Bulletin of the IPU, RAS*, - No. 1, 60-71, <https://elibrary.ru/item.asp?id=44857934>
12. Savenkov, A.N. (2018). Arctic: legal support for sustainable development and cooperation. *Proceedings of the Institute of State and Law, RAS*, 2018 - No. 1, pp. 22-42.