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ECONOMICS, POLITICAL SCIENCE, SOCIETY AND CULTURE

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Arctic's knowledge economy: Spatial patterns of knowledge and technology production in the Arctic

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Abstract. This paper focuses on 'other,' i.e. non-resource, non-public sector and non-subsistence economies of the Arctic. We investigate the geography and assets of the Arctic's knowledge sector by examining both supply and output side of the knowledge production at the circumpolar and regional scales (using Alaska as a case study). In other words, this paper provides a first-cut analysis of the "Arctic variety" of the knowledge economy. We find that the Arctic has variable endowment with human capital engaged in new knowledge generation. Clusters of high knowledge potential tend to locate in larger cities and regional capitals. An analysis of patent registration in Alaska, confirms this pattern, but also reveals a complicated and evolving picture of localized innovation. Alaska demonstrates limited, albeit growing, variety knowledge-producing sectors, a strong role of individual inventors and a weak connectivity with outside knowledge clusters. It is also evident that knowledge production in the Arctic has underdeveloped circumpolar linkages, and thus requires urgent efforts to stimulate research cooperation between private and public sector inventors in the Arctic jurisdictions.

Keywords: *knowledge economy, Arctic, patent, innovation, development.*

Introduction

A textbook description of the Arctic economy traditionally refers to the three 'pillars:' resources, public sectors, and traditional sectors [1, Knapp G., Huskey L.]. However, as argued below, this notion is no longer valid due to the increasing diversification of the Arctic's economy instigated by the evolving global and national economies of the Arctic states. In most regions of the Arctic, with the exception of Russia, the non-pillar industries produce 30-50% of GDP [2, Glomsrød et al]. There is a good argument that some of these emerging industries have higher productivity and lesser volatility than the resource sector, and therefore are more compatible with the notion of sustainable economic development in Arctic regions. Thus, a proper study of the modern Arctic economy cannot be conducted without examining 'other' economies.

Under 'other' economies we understand a broad range of economic activities, which are not (non-renewable/large scale) resource, public or traditional, although they may be connected to these through various linkages [3, Petrov A.]. 'Other' economies tend to be more endogenous and embedded. As a result, they may have stronger internal linkages and multipliers, generate more local development, and serve as avenues to empower local communities. At the same time, these economies are not solely local [4, Huskey L.], but can also serve as a strong link between Arctic's lo-

cal economies and the global capitalist system. Examples of 'other' economies include knowledge-based industries, such as high-tech, arts and crafts, small-case custom manufacturing, professional and technical services, food, recreation, and local retail trade.

Based on data from Glomsrød & Aslaksen [5], the GDP generated by the non-pillar sectors, excluding construction, was approximately \$120-125 billion in 2005-2010. When compared to the resource sector, especially mining, some of the new industries grew faster and demonstrated higher productivity [5, Glomsrød S., Aslaksen I]. The growth of these industries is induced by their tendency to locate in Arctic urban centers, which now concentrate most of the of Arctic's population [6, Megatrends]. Although the volume of the 'other' economies in the Arctic is substantial, their share is smaller compared to the southern regions. In other words, the role of post-industrial economy, to which most of the Arctic's 'other' industries belong, in the circumpolar region, is modest.

Recent studies demonstrate that despite strong impediments, peripheral communities can foster a diversified economy [7, Beyers W., Lindahl D.; 8, Boschma R.; 9, Gradus Y., Lithwick H.; 10, Selada C. et al.]. Investment in human capital has been identified as a key element in diversifying local economies [6, Megatrends; 11 Petrov A.]. Human capital in this context can be defined as a stock of knowledge and skills vested in the local population, while creative capital refers more specifically to the aggregate ability to generate 'meaningful new forms' (i.e. to innovate) that have economic value [12, Hirshberg D., Petrov A.; 13 Florida R.]. In order for peripheries to foster economic growth spurred by 'other' economies, there has to be a connection to localized knowledge and social capital that can be formed with institution-building and formation of civic society [14, Aarsaether N.].

A development based on knowledge economy is an integral part of a larger sustainable development strategy, especially for Arctic cities and towns [15, Pelyasov A.]. Bringing and sustaining knowledge and human capital-intensive industries provides a new opportunity for northern urban communities to avoid boom-bust cycles, reduce dependency on external economic and political actors, and improve the wellbeing of the local residents. Recent studies demonstrated that some Arctic cities have considerable concentrations of highly educated professionals [6, Megatrends]. These are predominantly administrative and economic urban centers. Albeit only some Arctic regions could strongly capitalize on 'other' economies, or high-tech specifically, it is certainly a possible ingredient for achieving sustainable development in northern urban communities.

This paper discusses emerging high-tech industries and uses two scales of analysis to provide insights in a knowledge-based economy of the Arctic. The general discussion of 'other' economies' has been started in Petrov [3], and this paper serves to extend the earlier argument focusing on high technology (high-tech) economic activities, which are defined here as knowledge-producing sectors and activities reliant on codified technical knowledge, such as Information Technology and Professional, Scientific, and Technical Services. High-tech is not the only knowledge-generating segment of the economy, and other sources of innovation in the Arctic include cultural, social, and civic economies [16, Petrov A.]. However, high-tech is more vividly represented in the literature and in statistical dataset. One characteristic of the high-tech industries is the elevated share of STEM jobs, such as

engineers, IT workers, designers, scientists, managers, etc. [17, BLS]. However, technology knowledge production is not confined to these sectors, but spreads across the entire economy involving all workers in creative technology-related occupations [13, Florida R.]. Thus, in order to examine (high-tech) knowledge economy one needs to consider knowledge workers in all industries, employment in technology firms, and knowledge production itself. Below, the analysis follows this logic by looking at three snapshots of the Arctic knowledge economy: through occupational and educational characteristics of labor force, employment in high-tech sectors, and patents output.

Circumpolar Knowledge Economy: Knowledge Workers in Arctic Cities

The data on knowledge economy in the Arctic are limited. However, several recent studies developed a system of proxies, which could be used to estimate the size and potential of the knowledge sector in peripheral jurisdictions, such as the Arctic [11, Petrov A.]. One way to measure knowledge production is to look at knowledge output (e.g., patents or other forms of innovations). Another option is to examine knowledge supply (e.g., the education/skills level of the labor force, and the number of employees in high-tech sectors and in knowledge-intensive occupations). The three main indices used here are supply-based and include: Talent Index (TI), Applied Scientists (“Engineers”) Index (ASI), and Tech Pole Index (TPI). The two first indices are based on information on workers occupations. The TI is defined as the location quotient (LQ) of adult population with a university degree, while ASI is the LQ of labor force with occupations in applied and natural sciences, computer science, and engineering. The Tech-Pole Index (TPI) is a LQ of the employment in high technology sectors (including Information and Professional, Scientific and Management, and Administration occupations in the national classifications). The data used in this study date between 2006 and 2010. Only the largest cities (population over 20,000) and the regional capitals are included.

Figure 1 shows the Talent Index for the circumpolar cities. Most Arctic regions have relatively low educational attainment as described by the TI. As seen in Table 1, Arctic cities have varying degrees of ‘talent’ concentration. These clusters include regional and national capitals both in Russia and across the Arctic, such as Anadyr’, Salekhard, Yakutsk, Umea, Magadan, Juneau, Yellowknife, Tromsø, and Reykjavik. Another group of cities with highly educated labor force is located in Yamal-Nenets Okrug of Russia (most likely reflecting the influx of educated labor migrants in the last decades).

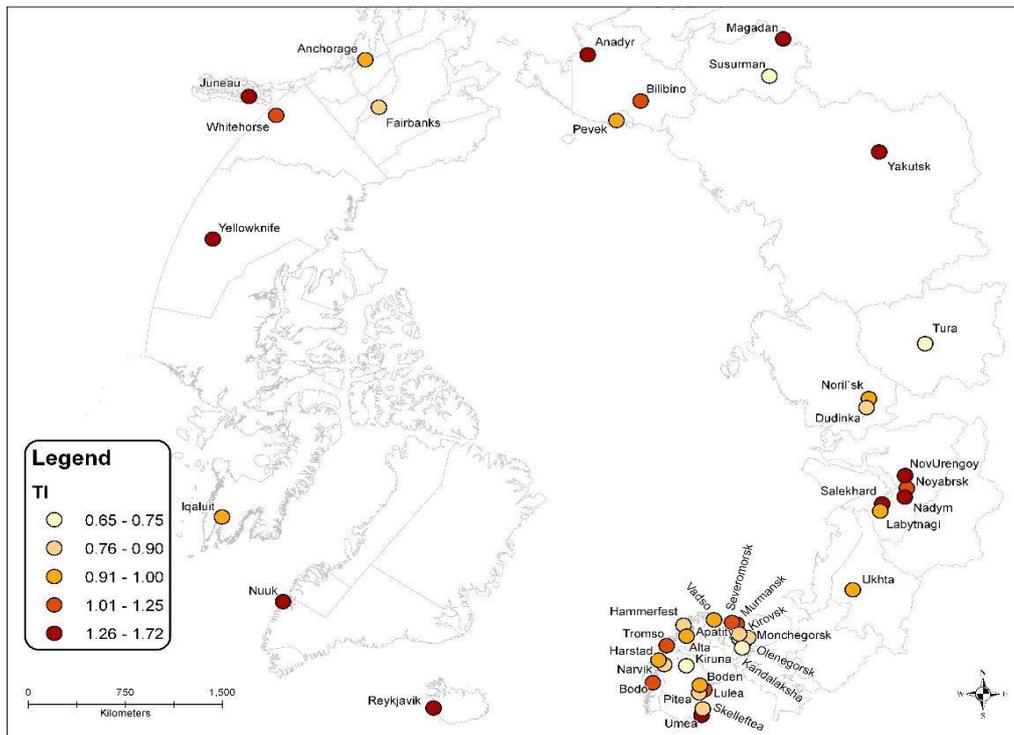


Figure 1. Location quotient of adult population with a university degree (Talent Index) in Arctic cities

Table 1

Talent Index in Selected Arctic Cities

City	TI	City	TI	City	TI
Anadyr, RU	1.72	Noyabrsk, RU	1.14	Hammerfest, NO	0.89
Nuuk*, GL	1.55	Bodo, NO	1.11	Narvik, NO	0.88
Umeå, SE	1.51	Luleå, SE	1.11	Fairbanks, US	0.87
Salekhard, RU	1.50	Bilibino, RU	1.09	Apatity, RU	0.84
Novy Urengoy, RU	1.47	Whitehorse, CA	1.09	Monchegorsk, RU	0.83
Nadym, RU	1.42	Iqaluit, CA	0.99	Olenegorsk, RU	0.80
Yakutsk, RU	1.39	Ukhta, RU	0.98	Dudinka, RU	0.80
Yellowknife, CA	1.29	Harstad, NO	0.98	Kirovsk, RU	0.79
Juneau, US	1.29	Norilsk, RU	0.96	Piteå, SE	0.77
Reykjavik, IC	1.28	Alta, NO	0.96	Skellefteå, SE	0.76
Magadan, RU	1.27	Labytnangi, RU	0.96	Vorkuta, RU	0.74
Tromsø, NO	1.25	Boden, SE	0.96	Tura, RU	0.69
Murmansk, RU	1.16	Anchorage, US	0.95	Kandalaksha, RU	0.67
Severomorsk, RU	1.16	Vadso, NO	0.92	Kiruna, SE	0.65
		Pevek, RU	0.91	Susuman, RU	0.63

*baseline is Greenland; Source: data collected from national statistical agencies for 2006-2010. Note: CA – Canada, GL- Greenland, IC – Iceland, NO – Norway, RU – Russia, SE – Sweden, US – United States.

The ASI measures a relative concentration of labor force in applied and natural sciences, computer science, and engineering (occupations traditionally considered as a part of the knowledge economy, but not inclusive of all knowledge workers). Similar to the TI, the ASI in the Arctic is relatively low. However, we see a number of concentrations, notably the Northwest Territories, Yukon, urban Alaska, Yakutia, and northern Scandinavia. Although not a perfect proxy of

the spatial distribution of Arctic's knowledge economy, the ASI indicates that people with knowledge-intensive occupations tend to locate in urban and more industrial areas.

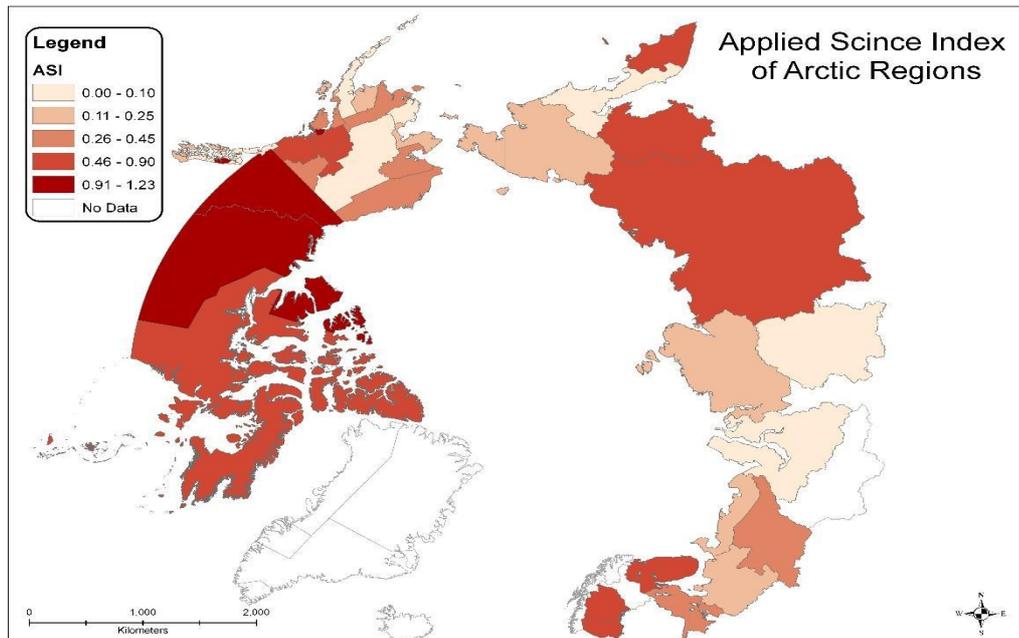


Figure 2. Location quotient of labor force in applied and natural sciences and engineering in the Arctic regions (ASI). Source: [3, Petrov A.]

Finally, the Tech Pole Index assesses the employment in high-tech industries (Florida, 2002; Figure 3). It estimates the volume of knowledge-based economic activity in the Arctic regions relative to the country's base. Not surprisingly, the TPI generally follows ASI and is larger in the Northwest Territories, Yukon, and selected regions of Alaska. The index is much lower in northern Eurasia. Remarkably, oil and gas-rich regions of the Russian Arctic have small high-technology employment: most engineers and technology workers (captured by the TI and the ASI) are employed in the extractive industry, which is not considered high-tech by the TPI.

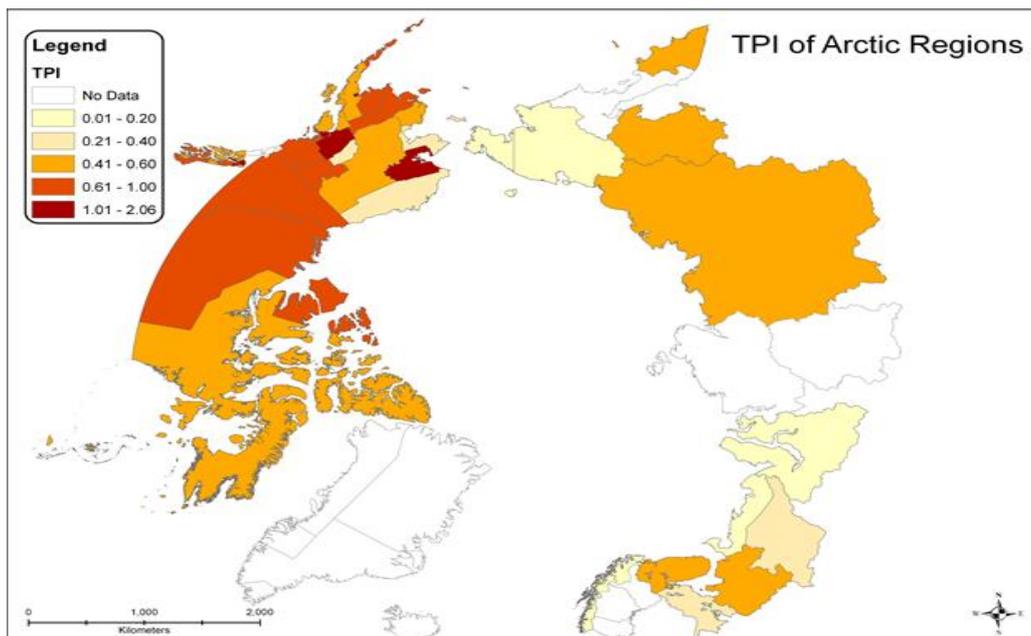


Figure 3. Location quotient of the employment in high technology sectors (TPI). Source: [3 Petrov A.]

Regional Knowledge Production: Patented Innovations in Alaska

Patents are registered and recognized instances of product or process innovations. Patent production has been routinely utilized to characterize the knowledge economy's output [18, Acs Z.J., Audretsch D; 19, Feldman M.]. In the United States, intellectual property right is granted and the patent is awarded by the U.S. Patent and Trademark Office (USPTO). The volume of patents registered to inventors in particular region is closely related to the knowledge economy output in the area [20, Archibugi D.; 21, Kogler D.].

The total number of patents granted to Alaska residents between 1976 and 2010 was 1,959 (Figure 4). Over half of these patents were issued to residents of Alaska's three largest cities: Anchorage (855), Fairbanks (191), and Juneau (73). Other towns with considerable innovation activity included Wasilla (117), Homer (64), and Palmer (58). A large concentrations of patents in urban Alaska is natural. However, if normalized by population, a more complex picture of knowledge production would emerge: many smaller areas emerged as visible hubs of innovation activity, although many of them are highly specialized and/or localized.

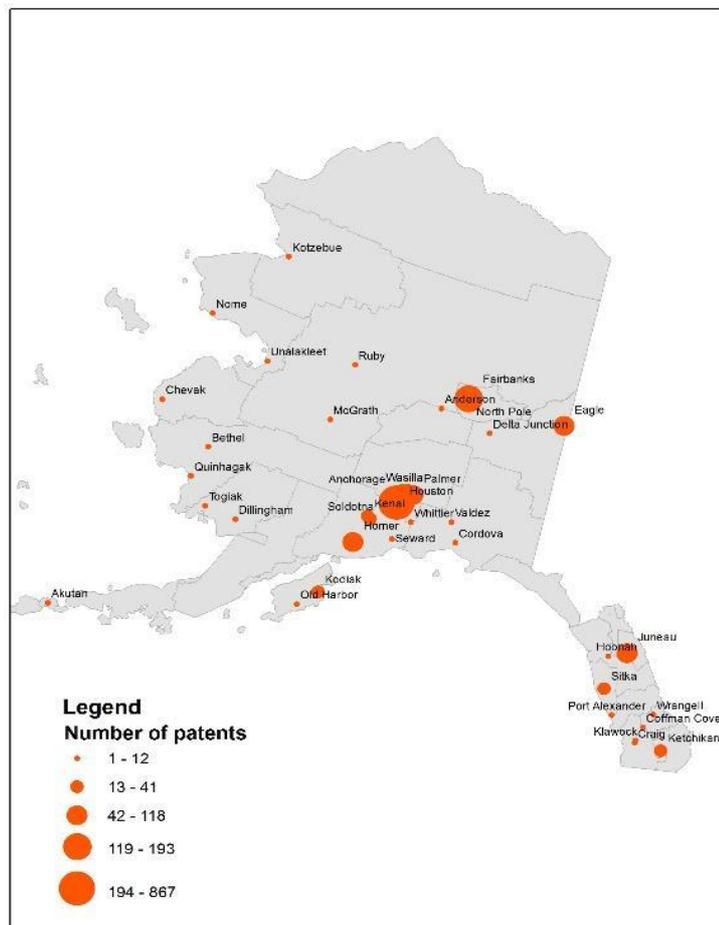


Figure 4. Number of patents (left) in Alaska cities and towns. (Source: USPTO database)

It is interesting to compare the geography of innovation to the employment in the high technology sectors (Figure 5). The TPI for Alaska's boroughs illustrates a similar picture, where Anchorage and its neighboring boroughs have the largest relative proportion of employees in the knowledge sector. Rural parts of the state with high TPI, such as the Northwest Arctic Borough, are associated with the areas of intensive resource-based activity with a relatively large knowledge labor force, but very few patents. In other words, these areas represent the end nodes of the knowledge production chain, where technology is being implemented (e.g., for mining) rather than developed.

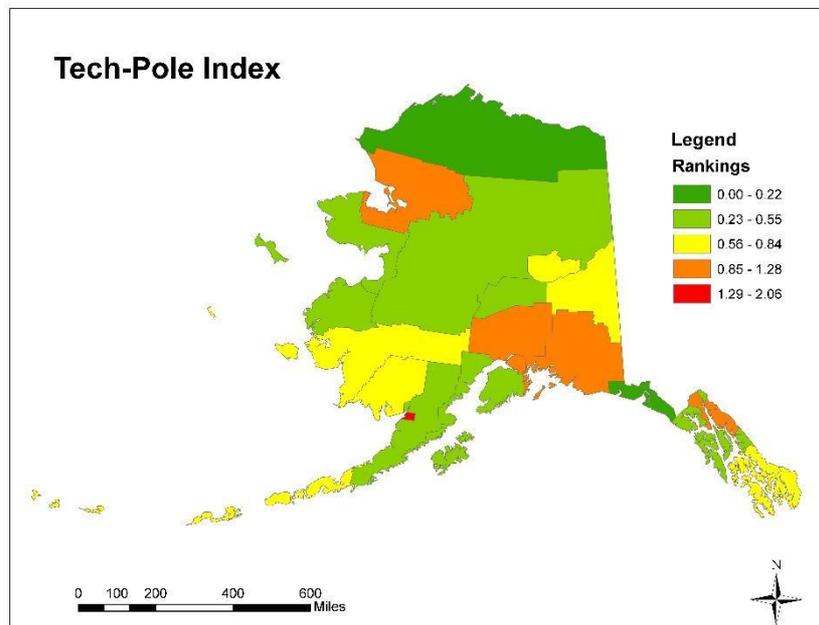


Figure 5. Location quotient of the employment in high technology sectors (TPI)
(Source: Alaska Department of Labor and Workforce Development, 2009)

Alaska innovative activity changed over time (Figure 6). There were at least four distinct periods when the dynamics of innovation and mix of leading sectors differed. In the early years (1976–1985), corresponding to the Alaska pipeline construction and the beginning of the oil boom, the number of patents was relatively small and with no clear dynamic from year to year. The top five patent-producing producing industries were: fishing, trapping and related activities (a traditional area of Alaska knowledge specialization, i.e. an “old” industry), hydraulic and earth engineering, wells (both associated with the oil extraction), land vehicles and road structure (the latter two related to the intensive construction, exploration, and drilling). The picture had changed by the mid-1980s. In 1986–1995, the dominant sector was wells, joined by hydraulic and earth engineering, boring, and liquid purification/separation. In all of these areas inventors worked on improving design, efficiency, and productivity of oil wells, drilling processes, and extraction and transportation. Needless to remind that this was the period of low oil process, so investments were channeled to increase production and productivity. In the following decades, the role of the wells sector in knowledge production remained very high, and other oil-related industries increased their knowledge production. The innovative activity dipped during the financial crisis of 2008, although it later recovered. Since the 1990s, and especially in the 2000s, the new sectors of knowledge specialization also emerged, such as medical procedures / surgery, data processing, and amusement devices.

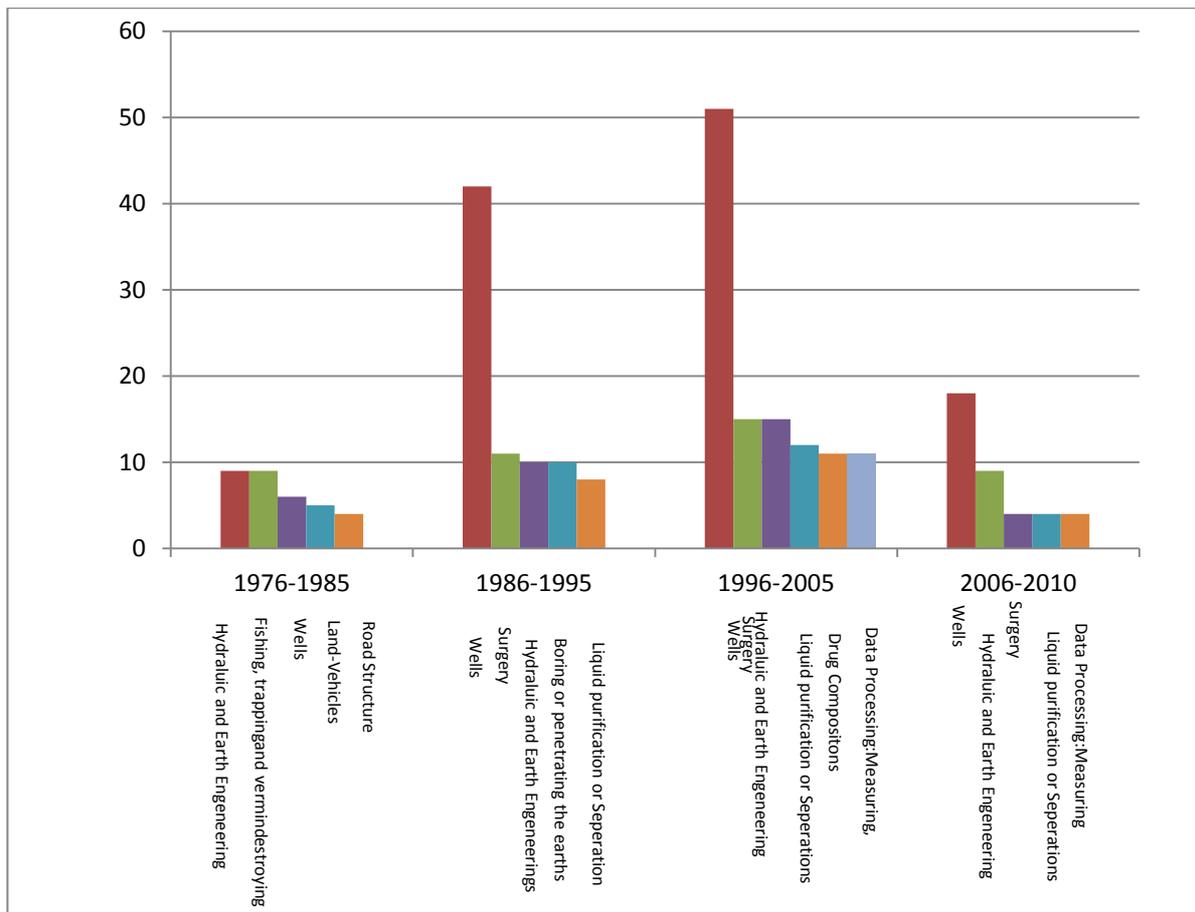


Figure 6. Leading sectors by patented innovative activity in Alaska (1976–2010)
(Source: USPTO database)

Overall, between 1976 and 2010, the wells sector produced 11% of all patents created by 18% of inventors. Most patents went to organizations, not individual inventors (8% of patents). There were 20 organizations and companies that involved in patenting activities. The dominant company was Atlantic Richfield Company with 196 affiliated inventors who have created 64 patents, with about 129 inventors were from Anchorage alone. The second largest patent applicant was for Schlumberger Technology Corporation, followed by Baker Hughes Incorporated. This sector represents a company-driven innovation, characteristic of large, vertically and horizontally integrated firms, in this case in the extractive industry. Other similar sectors included liquid purification, boring or penetrating the earth, data processing, drug, bio-effecting, and body treating compositions, measuring and testing, multiplex communications, communications electrical, and marine propulsion.

A contrasting example of individual-based innovation activity is surgery. Although this sector accounted for only 2.7% of total patents, two-thirds of inventors were individuals, mostly from Anchorage. The co-authors were scattered from Florida to Australia. However, there were six organizations involved in the patenting process, such as AutoGenesis Corporation. Other sectors with more individual inventors than company inventors, were land vehicles, fishing, ships, animal husbandry, exercise devices, package, internal engines, amusement devices, material or article handling, and others.

Table 2 illustrates the sub-sectors of knowledge specialization in Anchorage, Fairbanks, and Juneau. It shows all industries, in which the locational concentration of patents in these three cities exceeded the national baseline. Anchorage specializes in 11, Fairbanks in 12, and Juneau in six sectors. The individual areas of expertise vary and include oil-related industries (e.g., wells, hydraulic, and earth boring), “old” Alaskan industries (e.g., fishing, marine propulsion, and animal husbandry), and to new sectors of intensive innovation (e.g., surgery, geometrical instruments, games, and packaging). In large cities, the portfolio of inventions was diverse with multiple inventors, sometimes out-of-state working together. In contrast, in smaller communities (such as Ketchikan, shown in Table 3), patented inventions were frequently produced by a few individuals (repeat inventors with a narrow area of specialization). Most were also confined to one or two main industries.

Table 2

Sectors of knowledge specialization (1976–2010)

Industry Sector	Anchorage (municipality)	Fairbanks North Star Borough (administrative district)	Ketchikan Gateway Borough (administrative district)	Juneau (city and administrative district)
Wells	x			
Hydraulic	x	x		
Surgery	x		x	
Liquid purification or separator		x		
Land Vehicles				
Boring or penetrating the earth	x	x		
Fishing	x	x	x	x
Data-processing-measuring Calibrating or testing				
Drug, bio-affecting and body treating compositions				
Measuring and testing				
Ships	x			x
Animal husbandry	x	x		x
Supports		x		
Static Structure				
Geometrical Instruments	x	x		x
Exercise devices	x			
Package and article carrier's	x	x		x
Multiplex Constructions				
Communications: Electrical				
Marine Propulsion	x	x	x	
Internal combustion engine				
Amusement Devices:		x		x

games				
Material or article handling				
Fluid handling		x		
Refrigeration		x		

(Source: USPTO database)

Two peculiar clusters of patents outside larger cities, in Homer and Palmer, at least partially resulted from activities of single inventors: Alexander Hills in Palmer was responsible for multiple patents in wireless technology, and James Thacker in Homer patented dozens of inventions in electrical engineering. This example supports the thesis about the key role of individual inventors in smaller community’s knowledge economy.

At the same time, most patents registered to Alaska residents, especially in engineering and electronics, were prepared in cooperation with authors from other states and countries. In other words, Alaska inventors were involved in the external innovation networks. Figure 7 shows the growth of non-Alaska co-inventors in time, and Figure 8 maps the network for Alaska-originated patents in 2006–2010. The global connectedness of Alaska innovators is evident, although their linkages are confined to a few regions. The most intensive co-invention took place with the U.S. counterparts, mostly based in Texas (oil industry patents). There are also a few Canadian, British, Asian, and Australian connections. Unfortunately, there are no co-inventor networks with other Arctic jurisdictions. In other words, innovators in Alaska are detached from other Arctic jurisdictions, with no co-invention taking place. This lack of linkages appears to be a considerable shortcoming and a missed opportunity for Arctic innovators to work together. Therefore, enhancing circumpolar research cooperation might create new opportunities for collaborative innovation in the Arctic.

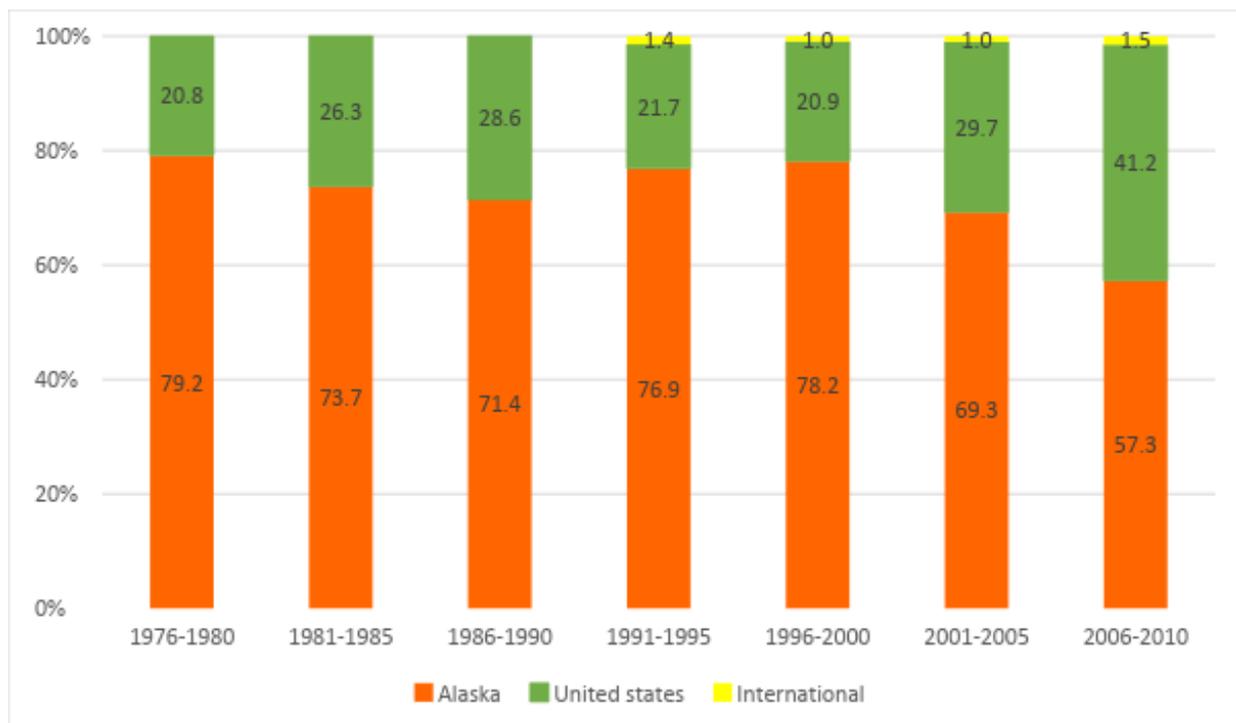


Figure 7. Distribution of the residence of the (co)inventors over between 1976 and 2010
(Source: USPTO database)



Figure 8. Global co-inventor networks of Alaska inventors in 2006–2010
Источник: База данных USPTO

Figure 9 demonstrates the affiliations of Alaska inventors and their non-Alaska counterparts. A notable distinction is the prevalence of individual inventors (not affiliated with a larger company) among Alaskans compared to their outside co-inventors. Still, 42% of Alaska and 72% of collaborating patent producers were corporate (a company held at least some of the patent’s intellectual property). Government and universities played a modest role in the innovation process, although it was not insignificant.

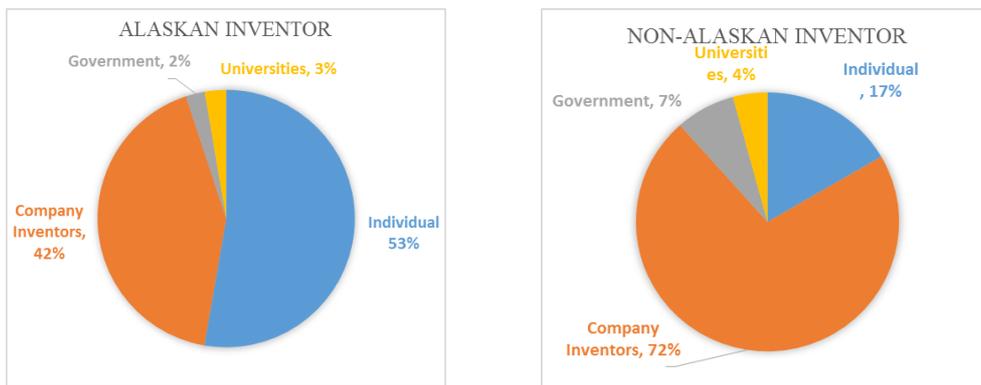


Figure 9. Affiliation of Alaska inventors and non-Alaska co-authors
(Source: USPTO database)

A first-cut analysis of the knowledge economy in Alaska as represented by patents shows that it gravitates to urban centers, demonstrates limited, albeit growing, variety knowledge-producing sectors, strong role of individual inventor, and weak connectivity with circumpolar knowledge clusters. In other words, it retains the signs of a resource frontier, such as overreliance

on resource sectors-based innovations, concentration of the knowledge production in a few urban centers, relative prevalence of individual inventors, and limited variety of inventions. At the same time, Alaska's technology sectors have been evolving to increase external connectivity, collaborative networks, and knowledge production portfolios.

Discussion and conclusions

New trends in the Arctic economy indicate that it is no longer exclusively dominated by the "pillar" sectors. Many other industries and services, the hallmarks of post-industrial era, occupy strong, and, in some areas, leading positions in regional economic systems. Given continuing globalization, urbanization, and growth of post-industrial sectors in the Arctic these 'other' will be gaining importance in the future. The urgent task is to improve our understanding of these economic activities and their relationships with the "pillar" sectors and sustainable development.

What do we know about the 'Other' economies in the Arctic as represented by the knowledge sectors and high-tech specifically?

'Other' economies, and especially high-tech, are predominantly urban. They emerge in cities (and towns) and constitute the integral part of these local economic systems, resulting from the application of local human capital and other factors of production.

'Other' economies are endogenous, i.e. embedded in local human capital, consumer market, and entrepreneurial environment. This is a sharp contrast with the oil sector that depends on external companies, global demand for fuels, and relies on non-local or highly-mobile labor force, and thus, is exogenous, and a subject to extraterritorial control. Although the knowledge sectors can be highly dynamic, and many technology inventions are reliant on external flows of information and demand, they are still entrenched in local communities, their social and economic institutions, creative capacities, and other localized factors. Embeddedness makes the 'other' sector a viable economic link between local socio-cultural models of production and modern capitalism, when 'home-grown' industries become a part of the global knowledge economy. Embeddedness also means knowledge transfer and exchange within the community (as opposed to the dominance to external flows), and works to further build local capacities.

'Other' economies in the Arctic are often less decoupled from other sectors and engage local labor force. At the same time, they are less prone to boom and bust cycles generated by the changes in resource markets. In fact, a Yukon case study found that nearly 60% of local knowledge workers reported no or limited impact of these cycles on their business [22, Voswinkel S.].

'Other' economies give the rise to the "new frontier," a new Arctic economic system, where the importance of non-pillar sectors is poised to increase. Innovations, whether business, technological, civic, or social, often spur new economic activities in northern communities.

'Other' economies, and especially knowledge production in the Arctic, have relatively weak connections to the outside flows of knowledge, and at the same time may lack internal connectivity within the region. Many inventions are completed by individual inventors, the "lone eagles,"

who lack strong linkages to either local or global networks. This lone inventor pattern is well illustrated in Alaska: the average number of innovators per patent in the 1980s was under 1.5, and, although it has increased over the decades, on average a single patent involved only a small group, 2 or 3 individuals, in 2009-2010 [23, Zbeed S., Petrov A.]. In the Yukon Territory, past research revealed that almost 60% of knowledge workers are self-employed and work predominantly with extraterritorial customers [22, Voswinkel S.].

Finally, 'other' economies have underdeveloped circumpolar linkages. The most troubling finding of this study is that Alaska inventors had no co-author relationship with innovators in the other Arctic countries. Although the tendency to be closely connected with the rest of the USA and a few other clusters of expertise pertaining to Alaska's leading oil and natural gas sectors, is natural, the absence of circumpolar connectivity is likely to exert a detrimental effect on Alaska knowledge economy. International collaboration in innovation on aspects associated with northern environments, technological needs, and operational conditions seems to be a lost opportunity for Alaskan inventors. There is little doubt that the oil sector knowledge production in Alaska could benefit from cooperation with Norwegian experts, fishing — with Iceland and Norway, animal husbandry — with Greenland, Finland, Norway, Russia and Sweden, and so forth. In other words, creating a knowledge exchange and sharing among Arctic innovators is a key economic task that to be addressed without delay.

This paper provided a first-cut analysis of the "Arctic variety" of the knowledge based economy. Further studies are needed to improve our understanding of the 'other' economies and their sectors. In the recent years, the Arctic Council advanced an ambitious agenda on fostering circumpolar scientific cooperation. Science and educational organizations, such as the International Science Committee, University of the Arctic and International Arctic Social Sciences Association introduced concerted efforts to connect Arctic scientists [24, Berkman P. et al]. However, the new challenge is to build linkages between individual, corporate and government inventors outside the universities. Perhaps, the newly established Arctic Economic Council can take responsibility for completing it.

Acknowledgments

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Recreational nature management and tourism in the new development plans of the North of Russia*

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Abstract. The article is devoted to the problems and prospects for the recreational nature management development in the Arctic in connection with the state “Strategy for the Development of the Arctic Zone of the Russian Federation and National Security for the Period up to 2020”. The author considered modern trends in the development of cruise tourism, environmental problems of the Arctic and the task of embedding recreational and tourist activities in the complex re-development of the Arctic and the North. The result of the study is the conclusion about the expediency of integration of the tourist-recreational sphere into the complex project of social and economic development of the Arctic zone of the Russian Federation.

Keywords: *the Arctic, nature management, protection of the natural resources, national parks, the Northern Sea Route, cruise tourism.*

Introduction

The main goal of this article is to draw attention to the development of recreational nature management and tourism in the Northern and Arctic areas of Russia, while implementing the strategy of integrated resource development in the Arctic Zone of the Russian Federation. Recreational nature management and international tourism should find a worthy place in the local plans and projects of the state program-target management for the Arctic areas of the Russian Federation.

The Arctic includes extensive coastal areas, islands and seas of the Arctic Ocean. In the 21st century, both in Russia and abroad, it has become a region of increased international attention, not only from perspective of extracting its natural resources and balancing the interests of indigenous people of the North, but also as a promising region for the development of transport, as a region that needs stronger environmental activities, advanced recreational use of nature and developed international tourism. In 2013, the Government of the Russian Federation adopted the “Strategy for the Development of the Arctic Zone of the Russian Federation and National Security for the Period to 2020”. This strategy contains the following provisions: “... *development of the arctic tourism and expansion of the ecotourism in the Arctic, ... assistance to the local tourist clusters, promotion of the arctic tourism at the national and international markets*”¹.

So, Russia has an urgent task of the complex use of the existing infrastructure and economic base in favor of the social and economic development of the polar territories, and it is also rele-

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¹ Strategiya razvitiya Arkticheskoi Zony Rossiiskoi Federatsii do 2020 [Strategy for the Development of the Arctic Zone of the Russian Federation until 2020]. URL: <http://government.ru/news/432> (Accessed: 25 December 2016) [In Russian].

vant for natural, ethnic, social, recreational and tourist resources of the Arctic. The modern sustainable development paradigm of the Arctic zone of the Russian Federation (AZRF), formulated by academician A.I. Tatarkin, should be based on a systematic approach to the integrated use of resources of the reference zones of the North, to the preservation of traditional lifestyles of indigenous minorities and unique Arctic ecosystems. It is rightly emphasized that it is necessary to comply with the environmental imperative in the development of the Arctic, which means an unconditional priority of environmental safety over the economic benefits of the development of territories, the need to calculate the environmental capacity of the territories when placing production, taking into account the interests of indigenous people and activities aimed at preserving the biodiversity of the Arctic territories [1, Tatarkin A.I., p. 339]. Such an approach contains an idea of “the re-development of the Russian Arctic” through the integration of the current “regional projects and development programmes for the territorial units of the Arctic zone of the Russian Federation in the interest of achieving common goals of the Arctic megaproject” [2, Leksin V.N., Porfirev B.N., p. 9]. Proposals aimed at forming the “Arctic portfolio of projects” not only at the Federal, but also at the regional and municipal levels, the introduction of an integrated project approach to the management of the socio-economic development of the Russian Arctic, the organization of the public movement “Arctic Exploration” as a mega-project supporting the “living resource” and the competitiveness of our country, put forward by Yu.F. Lukin [3, p. 80] and V.P. Fedorov [4, pp. 1–6]. It remains to add that the recreational nature management in the Arctic, aimed at the preservation of the Arctic environment and the organization of specially protected natural areas (SPNA), the development of nature-oriented forms of tourism is no less important strategic direction of development than the extractive industries of the economy.

Modern tendencies of the nature management in the Arctic

In the 21st century, the economic interests of many countries of the world crossed in the Arctic region. It was mainly Russia, the USA and Canada, as well as the Nordic countries: Iceland, Norway (with Spitsbergen), Denmark (with Greenland), Finland and Sweden. All these countries relate to the Arctic due to their geographical location, development history, science, economics and politics. They are interested in the rational use of the natural resources of the Arctic region. These countries are the main participants of the Arctic Council, established in 1998 for the good purpose of joint regulation of environmental management in the Arctic latitudes.

Russia has the longest shoreline in the Arctic seas (over 20,000 km) and the largest sector of the adjacent seas of the Arctic Ocean (AO), extending to the North Pole. This area also has the largest reserves of minerals in the Arctic sector, including about 105 billion tons equivalent fuel (Fig.1). The current economic and political interests of Russia in using the Arctic resources are obvious. The shelf waters of the AO seas, adjacent to the territory of Russia, are seasonally free from ice. They are of a great economic value, since this is not only an area of possible bio and hydrocarbon resources extraction, but also an area for navigation along the Northern Sea Route (NSR). At

present, the significance of the North for the economy of the Arctic states is determined, first, by its richest natural resources and its raw material potential. Therefore, the priorities of the economic development in the Arctic are primarily related to the extractive industries and the gradual development of transport, focused on the export of extracted raw materials. In the Arctic and northern areas of Russia, the bulk of non-ferrous and rare metals, gold and etc. provide up to 60% of the country's exports. According to the Rosstat, the Russian North provides 15-20% of the total GRP of the federal budget. Here, 72% of all oil and gas condensate is extracted; 93% of natural gas; almost all diamonds, and 37% of commercial timber are harvested. 90% of nickel and over 65% of copper are mined in the Arctic Zone of the Russian Federation (AZRF) and transported through the NSR. The contribution of the Arctic zone to total exports of Russia in the NSR is almost 25% [5; 6]. In addition, cruise trips of tourists from different countries to the North Pole and islands of the Arctic Ocean from Murmansk are now carried out. The potential volume of cargo transit through the NSR is estimated at 8–12 million tons per year. Cruise Arctic tourism along the NSR could be a significant contribution to the rational use of the Arctic resources [5, Dodin D.A. et al.; 7].

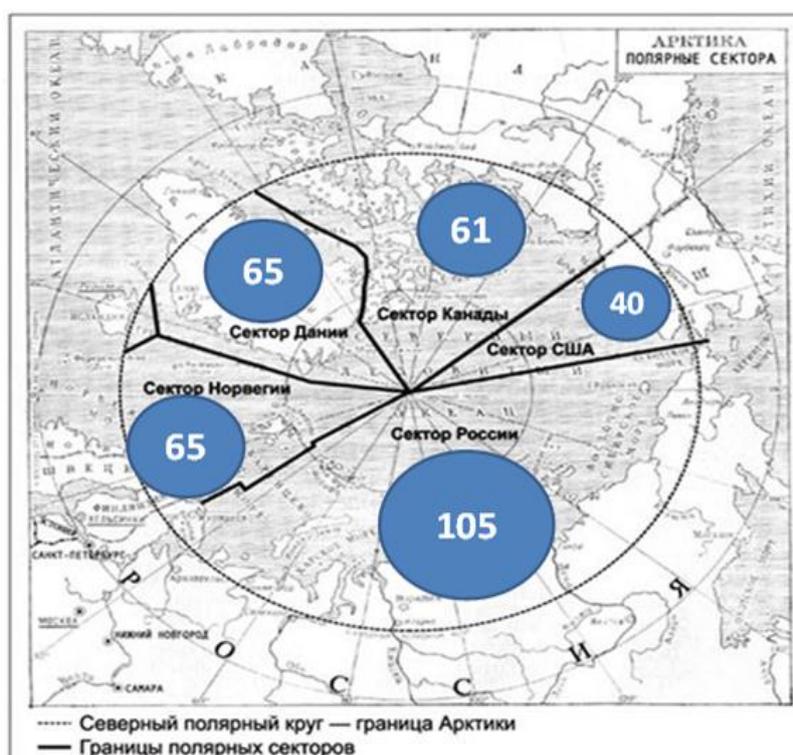


Fig. 1. Common hydrocarbon reserves in the national sectors of the major state of the Arctic region (in billion tons of equivalent fuel) [5, Dodin D.A. et al.]. Russia has the biggest reserves.

Russia is a northern, Arctic country with the widest sector of access to the Arctic Ocean and the largest area of the Arctic and polar landscapes in the world. The presence of our country in the Arctic is due to historical, scientific, economic and strategic reasons. Almost 16 thousand kilometers of the Russian Federation state border pass through the Arctic latitudes. The protection of the northern borders of the country and the rational use of natural resources of the Arctic are a task of national importance. In modern conditions, the rational nature management in the Russian Arctic should be based on the ecological imperative, accounting the climate change, protection of the

natural resources from pollution and depletion. Against the backdrop of the escalating struggle for Arctic resources, the environmental factor acquires special significance for ensuring strategic national interests and sustainable social and economic development of the northern territories of the Russian Federation. For Russia, which has access to the water areas of the 7 seas in the Arctic sector, there are the most favorable prospects for the use of the NSR, ensuring its safety, supporting commercial shipping and organizing international cruise arctic tourism.

The United States, Canada, the Nordic countries also have their own geographic sectors in the Arctic. The states defend their economic and political interests in the region, rich with biore-sources and oil and gas reserves, and are increasingly using the natural resources of the Arctic. Among the non-Arctic countries, China, Japan, South Korea and even India are increasingly showing their scientific and commercial interests to the Arctic.

China is actively introducing itself into the Arctic: it regularly conducts scientific research using its "Xue Long" diesel icebreaker and it has already started to carry out sea transportation along the NSR. Since 1999, the National Arctic Research Expedition has operated in China. It has already carried out eight large scientific missions in the Arctic on the icebreaker "Xue Long". The country has two research polar stations in Iceland and Norway. In 2003, in Ny-Ålesund (Spitsbergen), the Chinese scientific research Arctic station "Yellow River" was organized. China plans to use this station as a basis for the future tourist cluster and cruise Arctic tourism².

China received the status of an observer state in the Arctic Council in 2012 (Norway, Iceland, Denmark, Sweden, Canada, Finland, the USA and Russia are the member-states) and significantly intensified its research in the Arctic. In the same year, within the framework of the agreement with Russia, the icebreaker "Xue Long" passed along the Northern Sea Route and the Russian coastline and reached Iceland. In 2013, the China-Nordic Arctic Research Center was organized in Shanghai to support scientific, economic and tourist initiatives in the Arctic. The Chinese government established the Arctic and Antarctic Administration (CAA), responsible for scientific programs, and it is gradually increasing its activity. In 2016, China launched a new research icebreaker — "Xue Long 2". In August 2016, the first joint Arctic Russian-Chinese research was made in the exclusive economic zone of the Russian Federation in the Arctic Ocean. The export potential of the Chinese economy increases, and China has recently transformed (since 2010) into the world's first exporting power. The Chinese leadership realizes the benefits of developing trade links across the Arctic seas, incl. scientific research and tourism in the Arctic³.

Consequently, in the foreseeable future, the NSR will inevitably pass from the status of the national project to the category of the most important international one, capable of providing Russia's strategic economic interests.

² Romanova K. Kitajskij biznes idet v arktiku. [Chinese business goes to the Arctic]. URL: <http://www.gazeta.ru/business/2014/05/16/6037137.shtml> (Accessed: 10 March 2016). [In Russian]

³ Kitaj v arktike. [China in the Arctic]. URL: <https://regnum.ru/news/polit/2260803.html> (Accessed: 10 December 2017). [In Russian]

The Arctic zone in the Russian Federation is, in nature, an extremely severe region. The islands and seaside of the Arctic Ocean are dominated by the Arctic and subarctic climate, the landscapes of the arctic deserts (with fragmented vegetation) and the tundra zone (plains and mountains). Along the southern border of the Russian Arctic, fragments of the forest-tundra zone and the northern taiga appear. In this sector, the area of the Arctic seas reaches 6.8 million km², and the length of the northern coast of the Russian Federation is more than 22,600 km. This difficult-to-access and exotic region is attractive from the perspective of its resources, industrial and economic potential and from the recreational nature management point of view, for the existence of specially protected areas (SPAs): national parks and reserves as recreational and tourism facilities. In the 21st century, the Russian Arctic got such large recreational sites as the Kandalaksha Reserve and the NP "Khibiny" on the Kola Peninsula, the NP "Onezhskoe Pomorye" on the Onega Peninsula of the White Sea, and the NP "Russkaya Arktika" on the northern tip of the Novaya Zemlya Island, the Federal Wildlife Sanctuary on the Franz Josef Land, the unified Taimyr Reserve, the NP "Wrangel Island", the cluster NP "Beringia" in Chukotka (Fig. 2). Further recreational development of these Arctic natural areas will create the opportunity to use them as objects of ecotourism for the cruises along the NSR.

As it is known, in Russia, almost 20% of the territory is located to the north of the Arctic Circle. But if we account the lands referred to the Arctic zone of the Russian Federation by the Decree of the Government of the Russian Federation No. 296 of 02.05.2014, the size of this region extends to 37% of Russia's area⁴ (Fig. 2).



⁴ Lukin Yu.F. Rossijskaya arktika v izmenyayushhemsya mire. [Russian Arctic in a changing world]. Arkhangelsk. 2012 URL: https://narfu.ru/aan/Russian_Arctic_Lukin (Accessed: 25 December 2014). [In Russian]

Fig. 2. The map of the RF Arctic Zone⁵. The RF Arctic Zone (with landscape and climate conditions) is beyond the Arctic Circle and makes 37% of the territory of the Russian Federation. The stars mark the main SPAs of the Arctic Zone

Incl.: The Murmansk Oblast, The Republic of Karelia (incl. Loykhskiy, Kemskiy and Belomorskiy municipal areas), The Arkhangelsk Oblast (incl. Onezhskiy, Primorskiy and Mezenskiy municipal areas, the town districts of Arkhangelsk, Severodvinsk and Novodvinsk and legally adjacent islands), The Nenets Autonomous District, Yamal-Nenets Autonomous District, Krasnoyarskiy Krai (incl. Taimyr (Dolgano-Nenets) municipal area, town district of Norilsk, Igarka municipality of the Turukhanskiy municipal area), The Republic of Sakha (Yakutiya)(incl. Abiiskiy, Allabkhsevskiy, Anabarskiy, Bulunskiy, Verkhoyanskiy, Zhiganskiy, Olenekskiy, Nizhnekolimskiy, Srednekolimskiy, Ust-Yanskiy and Eveno-Bitanaiskiy ulus), Chukota Autonomous District, The Komi Republic (incl. the town district of Vorkuta)

One of the most important incentives for the modern activation of international economic and recreational activities in the Arctic region of the planet is undoubtedly the warming of the Arctic climate and the softening of the ice conditions in the seas of the Arctic Ocean, observed in recent decades. Researchers note that the ice cover of the Arctic is pulsating. According to Roshydromet, since the early 1980s, a significant seasonal reduction in sea ice has been recorded annually. This process was quickly accelerated in the late 1990s and reached the maximum values in 2007 (4.3 million km²), then in 2012 (3.41 million km²), and in 2016 (4.1 million km²). Thus, an increasing area of polar ice disappears in the summer time and frees the northern seas for navigation. According to the data of the Arctic sea ice cover monitoring carried out by AARI specialists: as of December 2014, the area of the polar ice cap in the Arctic Ocean was 11.67 million km², which is 4.2% less than the average multi-year norm. In the Eastern sector of the Arctic: Laptev Sea, East Siberian, Chukchi, Bering and Okhotsk seas, the ice area was less than the average multi-year value by 7.9%. In December 2017, the total area of sea ice in the Arctic Ocean 11.75 million km²^{6,7}.

Different points of view on the future of the ice situation in the Arctic exist. Supporters of the directed warming theory advocate the further reduction of the ice cover in the Arctic until its complete disappearance by the end of this century. According to other experts who study the cycles of climate change: the current climate system is in a bifurcation point, and, in the coming years, a tendency towards cooling and ice growth in the Arctic may appear. In any case, at the present stage and in the foreseeable future, it is advisable to increase the icebreaker fleet and strengthen the infrastructure of the Northern Sea Fleet.

The Arctic navigation shows that ensuring year-round safety in the NSR depends on powerful icebreakers able to navigate through the ice and escort vessels even in summer. At the same time, the difficulties associated with navigation in high latitudes are obvious: long, severe winters and heavy ice, which does not completely disappear even in the warmest months of the year. Navigation of freight and cruise ships through heavy ice in winter is possible only with the help of ice-

⁵ Ibid with the authors adds.

⁶ Global Sustainable Development Report, 2015 edition. Advance Unedited version. URL: <https://sustainabledevelopment.un.org/content/documents/1758GSDR%202015%20Advance%20Unedited%20Version.pdf> (Accessed: 10 February 2016).

⁷ National Snow & Ice Data Center, Arctic Sea Ice News & Analysis, 2016. URL: <http://nsidc.org/arcticseaicenews> (Accessed: 01 December 2016).

breakers but it is a complex and very expensive exercise. The icebreaker fleet of the Russian Federation, which is currently in operation, has 6 nuclear-powered icebreakers: four heavy icebreakers of the “Arktika” class and two “Taimyr” class icebreakers with less draft and five diesel-electric icebreakers. One nuclear icebreaker “50 Years of Victory” equipped with cabins for tourists, as well as the atomic icebreaker “Vaigach” [8, Ruksha V.V. et al., p. 29] are actively used for wiring of vessels and for cruise tourism. In Russia, the presence of the most powerful icebreaking fleet makes it possible to realize the opportunities for the development of minerals on the shelf and to provide perspectives for the continuous use of the Northern Sea Route (NSR) along the Eurasian coast in the framework of regional, national and international projects. This opens new opportunities for the development of the nature conservation and tourist-recreational activities in the polar latitudes. The icebreaking fleet and the global climate warming provide the access to the ports located at the NSR – Sabetta and Novy Port in the mouth of the Ob River; Dixon, Dudinka and Igarka on the Yenisei River; the Tiksi Port at the mouth of the Lena River, etc. These ports built in the Soviet era, require significant reconstruction, but they maintain coastal navigation in the “river-sea” system in the summer, serve as points for reloading mineral resources and wood, being the reference point and the center of life along the NSR [8, Ruksha V.V. et al., pp. 32–35].

In accordance with the modern paradigm of the complex “reassessment” of the Arctic, reorganization of the NSR and the development of supporting regions should stimulate the formation of tourist and recreational centers and cruise tourist service centers, the number of which will only grow in the Arctic. Recreative use of nature along the NSR relates to the organization of new national parks and reserves, attractive for cruise tourists and the identification and inclusion of new attractive tourist objects in tourist activity. An important aspect is the creation of new jobs and the active involvement of representatives of local indigenous peoples in environmental and tourist activities. It is necessary to emphasize that, unlike the resource-producing industrial nature management that prevails in the Arctic, recreational nature management does not have such a devastating impact on the environment, but, on the contrary, contributes to the protection of nature and the formation of an ecological outlook among tourists and the local population. The modern research on recreational nature management in the Arctic latitudes should be aimed at identifying and studying the remaining unique corners of nature and objects associated with the history of development of the northern territories of Eurasia with the goal of creating new SPAs and preserving the nature of the Arctic.

It should be accounted that favorable prospects for the development of navigation in the Arctic seas, ice-free in the summer, promise great economic benefits, but increase the danger of growth of pollution caused by the extractive industry. Therefore, the development of the maritime transport system in the North of Russia and regular navigation along the NSR should be accompanied by the creation of an independent special state service for the environmental monitoring of the Arctic environment under the Ministry of Natural Resources and Ecology.

Development of recreation and tourism in foreign countries

It should be specially noted that in recent years the water areas of the Arctic seas have been increasingly used not only for fishing and cargo transportation, but also for cruise arctic tourism. North of the Arctic countries start to bring a considerable economic benefit from its geographical position in relation to the growth of the tourists' interest to the harsh arctic landscape, natural, historical and cultural sites and other polar attractions. The most attractive objects for tourism in the Arctic are natural objects: exotic islands, glaciers, fjords, rocks, cliffs, waterfalls and icebergs, bird bazaars, sea animals, whales and polar bears, minerals, aurora etc. Tourist interests could be represented by memorable objects related to geographic discoveries and the history of the Arctic exploration. It is noteworthy that the Arctic tourism in the US, Canada, Greenland, Iceland and Norway develops with substantial state support and brings considerable profit. E.g., according to the UNWTO (2010), Alaska in the US earns up to 3.4 billion dollars in tourism, and Canada — 6.5 billion dollars a year. A sharp increase is observed in the number of tourists visiting Greenland: in the early 1990's the territory was visited by about 3,500 people per year, and in 2011 — almost 65,000 people a year. Thus, over 20 years, the tourist flow has increased by more than 18 times, exceeding the number of residents — Inuit and Danes (Fig.3). [6 Sevastyanov et al., pp. 91–92].

The other area of the Arctic with similar dynamics is Iceland. Its number of international visitors increased by more than 4 times. Norwegian Svalbard — 3 times. In other regions of the overseas Arctic (Alaska, Canadian Archipelago) the growth rates were comparable with the world average and amounted to 42 to 84% respectively. In general, in 2010 the number of tourists who visited the foreign Arctic and the circumpolar regions (excl. Russia) exceeded 700 thousand people [9, Sevastyanov et al., p. 485].

After a surge in the activity of Arctic tourism in 2006-2007, in all high-latitude regions there was a drop in the number of visitors. The acute phase of the economic crisis (2008–2009) seriously affected the dynamics of tourism in the Arctic. However, in 2012–13, in the Svalbard archipelago (Norway) and Iceland, there was a significant increase in the number of tourists. At the same time, in Alaska and Greenland, according to these indicators, there was a decline in visits (Figure 3).

The peak of the tourist flow to the Arctic falls on the summer months from June to September. It is especially typical for sea cruises, determined by the possibility of navigation. The air accessibility of Alaska, Greenland, Iceland and Spitsbergen smoothest the seasonality of visits, and the participation of residents in the use of tourist infrastructure at other times of the year makes it possible to ensure its minimum load in winter [10, Maher P.T., p. 53].

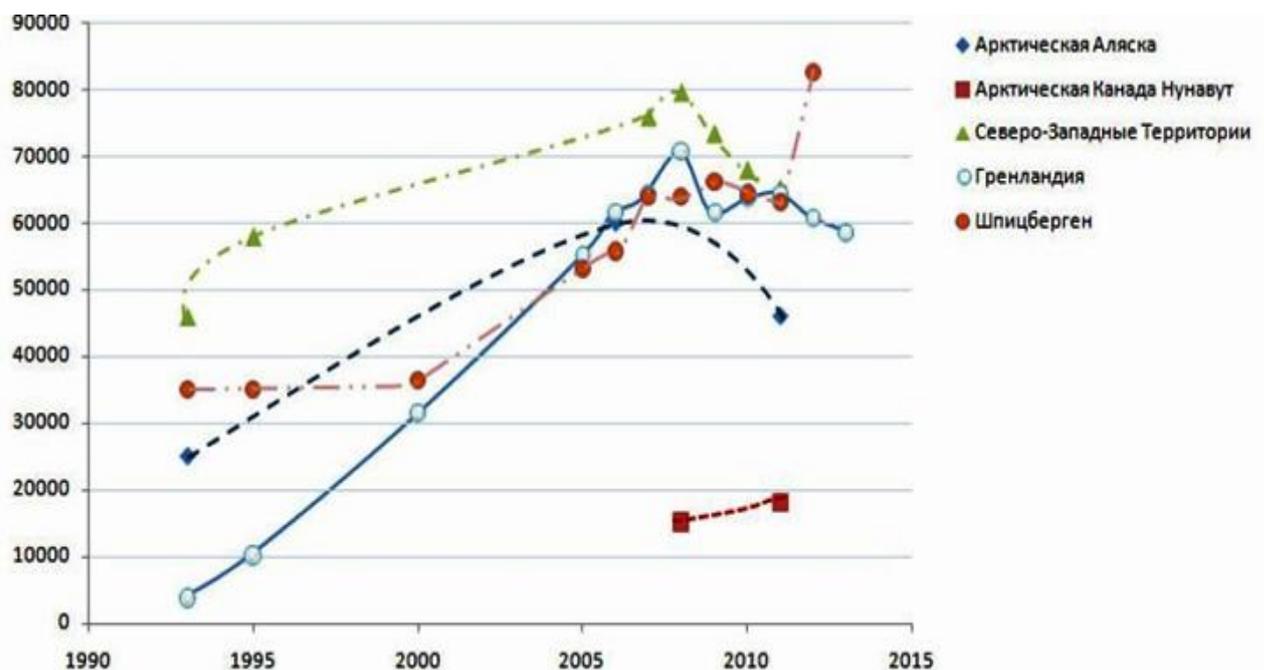


Fig. 3. Dynamics of tourist visits to the foreign Arctic zone [14]. The Arctic Alaska, the Arctic Canada Nunavut, North-West territories, Greenland, Spitsbergen.

It should be noted that the growth of anthropogenic impact on the Arctic landscapes and their vulnerability necessitates the scientific support of the Arctic tourism development programs that provide the sustainability of landscapes and their protection. E.g., Canadian experts identified the negative impacts of tourism on ecosystems: soil erosion and destruction of vegetation cover along the hiking routes, the digression of landscapes in places of tourist attractions, and anthropogenic pollution near the airports and marinas that reduce the attractiveness of tourist locations. According to Canadian researchers, in the Arctic, we should pay special attention to the control and regulation of tourist flows, minimizing the impact of tourism on the living conditions of indigenous peoples [10, Maher P.T., pp. 58–59].

Currently, one of the most visited areas of the Arctic is the Spitsbergen archipelago, located in the zone of the warm Gulf Stream influence. Cruise ships have been visiting Svalbard since 1870. The increase in the number of cruise tours in the 21st century increases in the anthropogenic impact on the nature of the islands. In accordance with the Regulations on tourist and excursion activities on Svalbard, the priority is to minimize the anthropogenic impact on the environment. Here is a special administrative zone number 10, which includes all the settlements of Spitsbergen, both Norwegian and Russian. In fact, this is the only visiting area, where the free stay of tourists and tourist groups is allowed without special registration. In addition to studying the anthropogenic pressure on landscapes, environmental services pay much attention to the “social load” for the local population. Also, a certain need to study the needs of visitors exists. It should be combined with the behavior study and a study of affects and forms of loads. Svalbard has been visited by 70–80 thousand people annually. About 80% of them are Norwegians and citizens of the other Scandinavian countries. Usually the visitors are in Longyearbyen. Russian settlement Barentsburg is less popular among tourists due to the inadequacy of the infrastructure. Although the territory where

the Russian settlements are located falls within the administrative zone No. 10. However, in recent years, Barentsburg experienced the growth in the number of visitors due to the short excursions (2–3 thousand people per year; among them — 20–30 Russian tourists). At the same time, the greatest influx of tourists at a local hotel is observed in the spring-summer period, from April to August [11, Korostelev E.M., Biletsky A.V., p. 13].

The Arctic tourism in the development strategy of the polar areas of Russia

It should be emphasized that in 2012 the Russian Federation adopted the State Program for the Development of Tourism in the Russian Federation for 2013–2020, which approves the priority of the inbound and home tourism, compare to the outbound tourism, and relies on the “Development Strategy of the Arctic zone of the Russian Federation until 2020”, which, in particular, provides the opportunity to create regional tourist clusters and promote the Arctic tourism at the national and international markets⁸.

The experience of the neighboring Arctic countries shows that rational environmental management, development of transport and hotel infrastructure should be the basis for the formation of tourist clusters in the Arctic. It is planned to use the protected areas of the Arctic region – national parks and reserves to carry out nature-oriented types of tourism and environmental education of recreators. An indispensable condition for the development of the Arctic tourism is the factor of international partnership and cooperation to ensure the safety of tourism in the Arctic and the transport for the Arctic travel. An example is the “Public-Private Partnership in Tourism in the Barents Region” (BART), mentioned by Yu.F. Lukin in his article on concepts and approaches to tourism in the Arctic [12, Lukin Yu.F., p. 61].

Analyzing the development trends of recreation and tourism in the northern and arctic areas of Russia, one cannot note the expansion of the network of national parks and reserves in recent years. First, this is the opening of the new SPAs: the NP “Russian Arctic”, united with the reserve “Franz Josef Land” in the Barents Sea; the NP “Onezhskoe Pomorie” on the Onega Peninsula of the White Sea; the cluster NP “Beringia”, located in Chukotka and Alaska, as well as reserves on the peninsula of Taimyr and on Wrangel Island. These SPAs are located within the accessibility of the NSR, which makes them attractive for cruise tourism in the Arctic seas.

One important event for the preservation of the nature of the Arctic and the development of recreational nature management in the polar latitudes happened in 2009: The Decree on the creation of the largest national park in the Russian North was signed. The national park “Russian Arctic” at the northern part of the Severniy island, the Novaya Zemlya archipelago, including the Large and Small Oranskiy Islands, Loshkin island and several other islands. The national park “Russian Arctic” is also managing the state nature reserve of federal significance – Franz Josef Land (FJL), which since 2016 is a part of the NP “Russian Arctic”. The area of the NP “Russian Arctic” is

⁸ Strategiiia razvitiia Arkticheskoi zony Rossiiskoi Federatsii do 2020 g. [Development Strategy of the Arctic zone of the Russian Federation until 2020] URL: <http://government.ru/news/432/> (Accessed: 25 December 2016). [In Russian]

14 260 km², but together with the FJL reserve with its area of 42,000 km², they make up one of the largest protected natural areas of the planet [13, Gavrilov M.V., p. 23]. The most important task of the national park is the preservation of biological diversity and the maintenance of the protected Arctic natural complexes, as well as the development of tourism within the jurisdictional territories. The main problem with this is a serious threat to the destruction of the vulnerable Arctic nature, cultural and historical objects located on the islands.

In the FJL archipelago, on the Bell island, there is the house of “Eyre” — the site of the British explorer Arctic Benjamin Lee Smith, named in memory of the yacht “Eyre”, crushed by ice at Cape Flora in 1881. The main object of tourist interest on the island of Hooker is “Tikhaya Bay” — the place of G.Ya. Sedov’s expedition wintering in 1913–1914. The same place — a colony of sea birds more than 10 000 pairs (*Fulmarus glacialis*, *Alle alle*, *Uria lomvia* and *Rissa tridactyla*). No less interesting is Champ island in the central part of the archipelago. Unique stone formations of an ideally round shape, known as spherulites. Southeast of Champ island is Hall Island, the southern point of which is Cape Tegethoff. The camp of the Austro-Hungarian expedition of J. Payer (1874) was located there? As well as the wintering remains of the expedition of the American journalist Walter E. Wellman (1898–1899). On the rocky slope of the island, there is an object of tourist interest of a geological nature — the dolerite dike of the Tegethoff cape.

According to news agencies, in 2013, 636 tourists from 35 countries visited the “Russian Arctic” national park. About 30% of them are Chinese citizens, the next is the US and Switzerland is the third. In 2014, 738 persons visited the territory of the NP “Russian Arctic” and the federal reserve “Franz Josef Land” (FJL), and in the summer of 2015 — 1,225 people (70% increase). 32% of tourists were representatives of China, about 10%—citizens of the Russian Federation [14, Ershov R.V., p. 118]. In 2016, the cruise visit of the “Russian Arctic” decrease, but in 2017 it exceeded the amount of one thousand tourist arrivals.

The dynamics of tourist visits of the NP “Russian Arctic” is presented in Table. 1.

Table 1

The dynamics of tourist visits of the NP “Russian Arctic”

Years	2011	2012	2013	2014	2015	2016	2017
Number of tourists	865	1005	636	738	1225	954	1142

According to a report of the NP “Russian Arctic”, in 2015, 7 of 11 cruises in the Arctic Seas, were sent to the North Pole on the nuclear-powered icebreaker “50 Years of Victory” and visited FJL; 3 — on the ship “Sea Spirit” along the route Spitsbergen — Franz Josef Land — Spitsbergen; and the cruise ship “Bremen” passed along the Northern Sea Route with visits to Cape Zhelaniya (Novaya Zemlya) and Franz Josef Land. Thus, the development of cruise travel and the growth in the number of tourists will increase the recreational load on the Arctic islands. It has already worried the nature protection service of the reserve. Despite small number of tourists, recreational digression has been already observed in places of tourist landings on the islands, due to trampling

of soils on excursion routes and disturbance of soil and vegetation cover. Research and calculations of the ecological capacity and justification of visits are becoming more and more popular [15, Chizhova V.P., p. 19].

At the same time, the Norwegian archipelago Spitsbergen, which is almost at the same latitude, is visited by tens of thousands of tourists annually. Back in the early 1990s, increase in the recreational loads on the islands pushed experts and the public to develop approaches to regulating the tourist flow. The method was called "local management plans for the territory". It includes information on valuable sites, scientifically based zoning of sites in the areas of tourist impact and a map of the area.

Many experts have already addressed the issue of assessing the loads and regulating tourism in the NP "Russian Arctic". Nevertheless, if we talk about the development of ecologically safe tourism, then we should have systematic studies: monitoring of environmental changes, reasonable arrangement of trails, management decisions on regulation of recreational loads on the Arctic landscapes, as many experts point out [11; 15]⁹.

The NP "Onezhskoe Pomorie", formed in 2013, is located at the northern tip of the Onega Peninsula, which extends into the White Sea, 40 km from the famous Solovetsky Islands. The area of the national park is 201 668 hectares, incl. lands, forest and waters. The creation of the NP "Onezhskoe Pomorie" is aimed at preserving the northern taiga and historical and cultural sites on the Onega Peninsula of the Arkhangelsk Oblast. This concerns rare and endangered animals and plants, listed in the "Red Book" of the Russian Federation, unique massifs of seaside old-growth taiga forests, as well as the culture and lifestyle of the Pomor people of the Russian North. The Onega Peninsula is a place of mass accumulations of waterfowl and near-water migratory birds during the spring and autumn migrations. Unskaya Bay meets the criteria for identifying wetlands of international importance and is included in the list of key ornithological territories of the Russian Federation.

The peculiarity of the national park is the presence of marine and forest protection zones, indigenous north-taiga forests, reaching the very shore of the sea, coastal dunes, numerous and diverse lakes, marshes and rivers. Glacial deposits create unusual stone piles; megaliths are found there. On the seashore one can find rookeries of the White Sea seals, belugas, sometimes moose, brown bears and wolves. The historical and cultural heritage on the territory of the NP "Onezhskoe Pomorie" is represented by several ancient wooden churches and chapels in the Pomor villages, ancient worship and vow crosses, and old beacons attractive for tourists. However, most wooden buildings require restoration. Therefore, the NP "Onezhskoe Pomorie" is extremely prudent for organizing ecological and historical and cultural tourism. The location of the NP "Onezhskoe Pomorie" is in the neighborhood (40 km from the White Sea) from the well-known tourist

⁹ Kak sovместit turizm i okhranu okruzhaiushchei sredy v Arktike. [How to combine tourism and environmental protection in the Arctic] WWF Report. URL: <http://www.panda.org/resources/inthefield/arctic> (Accessed: 21 February 2016). [In Russian]

destination — the Solovetsky Islands. In our opinion, it is a positive aspect for the further development of tourism and recreational activities, based on cruise tourism in the White Sea. In 2016, this national park was transferred to the administrative department of the NP "Kenezersky" in connection with the tragic death of the director of the Onega Pomorye NGO O. Prodan in a plane crash¹⁰.

The National Park "Beringia" located in the north-eastern part of the Chukota Peninsula. It is declared as an international national park, planned jointly with the natural reserve in Alaska (the USA) "Bering Land Bridge". The decree on the creation of the national park "Beringia" was signed on January 17, 2013. The Russian part of the park is represented by several clusters on the peninsula of Chukotka on a total area of 18,194 km².¹¹ The project of this international (or transboundary) national park appeared in the late 1980s. It is regarded as an ancient unified historical-geographical region, the so-called "Beringia" - an extensive part of the land, which, 12—15 thousand years, ago united Eurasia and North America. This land connection is now the Bering Strait. The symbolic role in the linking the two continents became the main idea of the co-building of the International National Park "Beringia". Visiting this corner of the Arctic is advisable to plan in connection with the development of cruise sea tourism along the Northern Sea Route and the organization here in the future of an "ecological isthmus" between Chukotka and Alaska [11, Korostelev E.M., Biletsky A.V., pp. 15—16].

In addition to attractions, the ecotourism potential of the park includes the culture of the indigenous peoples living here - the Chukchi and the Eskimo. The rich natural and ethnic potential of this region creates prerequisites for the development of recreational use of nature, ecological and ethnic tourism. It is necessary to implement a number of common activities to all the Arctic SPAs: to improve the level of servicing of the existing infrastructure for accommodation and food for tourists; to train qualified personnel for the organization of environmental and ethnic tourism in the Arctic; to involve indigenous peoples of the North to the tourism activities; to ensure the conservation of natural and cultural heritage in the polar areas; to modernize the existing port facilities and arrivals for cruise ships.

Conclusion

Summing up the plans for the complex social and economic development of the Arctic, its features and tourist and recreation activities in the polar regions, it should be noted that most of the tourist attractions in the Arctic are difficult to reach and they are mainly located in specially protected natural areas (SPAs). It is possible to see the primordial world of nature reserves and national parks, to get acquainted with the Arctic nature, the history of the development of the North and the culture of the indigenous peoples of the North only with the help of aircrafts or

¹⁰ Natsionalnyi park "Onezhskoe Pomorie". [The National Park "Onezhskoe Pomorie"] URL: <http://onpomor.ru/work/nauchnaya-deyatelnost/stepen-izuchennosti.php> (Accessed: 23 January 2018). [In Russian]

¹¹ Natsionalnyi park «Beringia». [The National Park "Beringia"]. URL: <http://www.beringiapark.ru> (Accessed: 25 December 2017). [In Russian]

cruise ships. The availability of Arctic territories and tourism facilities will increase as the transport and infrastructure of the North develops. This will be possible only if modern equipment and a relevant service of transport communications and ports along the NSR is provided, the infrastructure of settlements is reconstructed, the number of sea berths and airports in the Northern areas of the Russian Federation is increased. Thus, Russia is gradually increasing its defense, social and economic presence in the Arctic and is focusing its efforts on the exploration and development of natural resources, on the organization of new Arctic protected areas (PA) and on ensuring the security of Russia's polar frontier. The success of further development of the country depends on a balanced and harmonious relationship in the development of industrial and tourist-recreational use of natural resources during the "reconstruction" of the Arctic territories of the Russian Federation. Environmental management in Arctic latitudes should be carried out under the close supervision of an independent state service for environmental monitoring of the Arctic environment. This will ensure protection against destruction and contribute to the preservation and restoration of the unique ecosystems of the Arctic and the North of the Russian Federation.

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Approaches of foreign countries to legal regulation of the oil and gas development on the Arctic continental shelf*

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Abstract. The article studies the legal approaches of the USA, Canada, Greenland, Norway and Iceland towards regulation of the oil and gas drilling on the Arctic shelf. Similarities and differences in the legislation are highlighted based on analyzing the legal provisions of each state. The criteria for the comparative analysis are the extent of legislation development, flexibility of provisions, division of regulative and control functions among the state bodies, etc. The author concludes that while legislation of Iceland and Greenland is only on its way to a final drafting and mainly refers to international standards, Norway, on the contrary, is an example of a state with well-developed legislation enabling it to be one of the leaders in oil and gas industry. Though the USA and Canada have elaborated system of regulation of oil and gas companies' activities on the Arctic shelf. Both are notable for strict provisions that contributed to the outflow of private operators from the Arctic shelf.

Keywords: *the Arctic, oil and gas activity, national legislation, the USA, Canada, Norway, Iceland, Greenland.*

Introduction

Reducing the ice cover of the Arctic opens significant prospects for the economic expansion of the coastal states in this region. This concerns the extraction of marine bioresources, the development of transport and, undoubtedly, the development of oil and gas fields. The development of the North deposits is not only related to the work in severe climatic conditions, which is a serious challenge for companies, but also with the harming the vulnerable environment and the traditional way of life of the indigenous people.

As it is shown by the resolutions of the Arctic forums at the highest level, the authorities of the coastal states are seeking to find a balance between the economic advantages, given by the access to the Arctic Ocean, and the need to minimize the negative effects of anthropogenic impact on the Arctic ecosystems, i.e. to achieve sustainable economic development of the region. This goal, first, requires a well-developed regulatory framework at the national and international levels. Thus, let us move to the considerations on the foreign legislation of the states with an access to the Arctic waters. The development of oil and gas resources in the Arctic, as well as the state bodies for the supervision of this activity is in the focus.

The USA: the territory of imperative norms

The United States is one of the leaders in the oil extraction on the Arctic shelf. The most

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developed oil and gas basin of the Arctic is the northern slope of Alaska, the only Arctic state in the country. The Arctic hydrocarbon shelf reserves in the USA are in the bowels of two seas: the Beaufort Sea and the Chukchi Sea. In 1968, the largest oil field in North America, Prudhoe Bay, was discovered off the coast of Alaska. Currently, the Arctic continental shelf of the United States is producing oil in the Beaufort Sea. All offshore oil projects are located no more than 10 miles from the coast [1, Panichkin I.V., p. 167].

In connection with the decline in oil prices and the lack of positive results of offshore drilling in 2015—2016, some companies, working on the shelf of Alaska, announced the suspension of further activities in this region¹². Much in view of this fact, in December 2016, the US president made a statement, supported by the Canadian authorities, and it became a big surprise for the public of both countries. According to the document¹³, the United States decided to close the possibility of obtaining licenses for drilling in significant water areas of the Chukchi Sea and the Beaufort Sea. Making this decision, Barack Obama took advantage of the law on the outer continental shelf of 1953, giving the US President the authority to withdraw a region from the general shelf fund to be distributed. At the same time, the ban did not concern the existing oil production projects in the Beaufort Sea (Fig. 1: marked brown), and the water areas under the jurisdiction of the state of Alaska.

Since the offshore exploration is potentially associated with a risk of environmental damage, it is under the strict control of the US government. However, the legal norms relating to work on the shelf of Alaska generally do not differ from the national legislation on oil and gas activity.

The borders of the Arctic territories and waters are defined by the US Arctic Research and Policy Act of 1984.¹⁴ The US offshore oil and gas fields and reserves are owned by the state. According to the US Law on the outer continental shelf lands of 1953¹⁵, the coastal 3-mile zone of the Arctic shelf is under the jurisdiction of the State of Alaska, but the outer Arctic continental shelf (out of the waters of the State) is under federal jurisdiction. The same law gives the US Department of Interior¹⁶ the functions of general oversight of activities on the outer shelf and powers to control the necessary legislative framework in this field with a view to ensuring environmental protection and industrial safety.

¹² Shell abandons Alaska Arctic drilling. URL: <https://www.theguardian.com/business/2015/sep/28/shell-ceases-alaska-arctic-drilling-exploratory-well-oil-gas-disappoints> (Accessed: 20 February 2018).

¹³ United States-Canada Joint Arctic Leaders' Statement. URL: <https://obamawhitehouse.archives.gov/the-press-office/2016/12/20/united-states-canada-joint-arctic-leaders-statement> (Accessed 20 February 2018).

¹⁴ Arctic Research and Policy Act of 1984. URL: http://www.nsf.gov/geo/opp/arctic/iarpc/arc_res_pol_act.jsp (Accessed: 20 February 2018).

¹⁵ 43 U.S. Code Subchapter III — Outer Continental Shelf Lands. URL: <https://www.law.cornell.edu/uscode/text/43/chapter-29/subchapter-III> (Accessed: 20 February 2018).

¹⁶ Literal translation of the name of the *Department of Interior* (eng.) as the “Ministry of interior” (rus.) can lead to confusion since, in the United States, the functions of the traditional Russian Ministry of Interior are performed by the Ministry of Justice and the Ministry of National Defence. – authour’s note

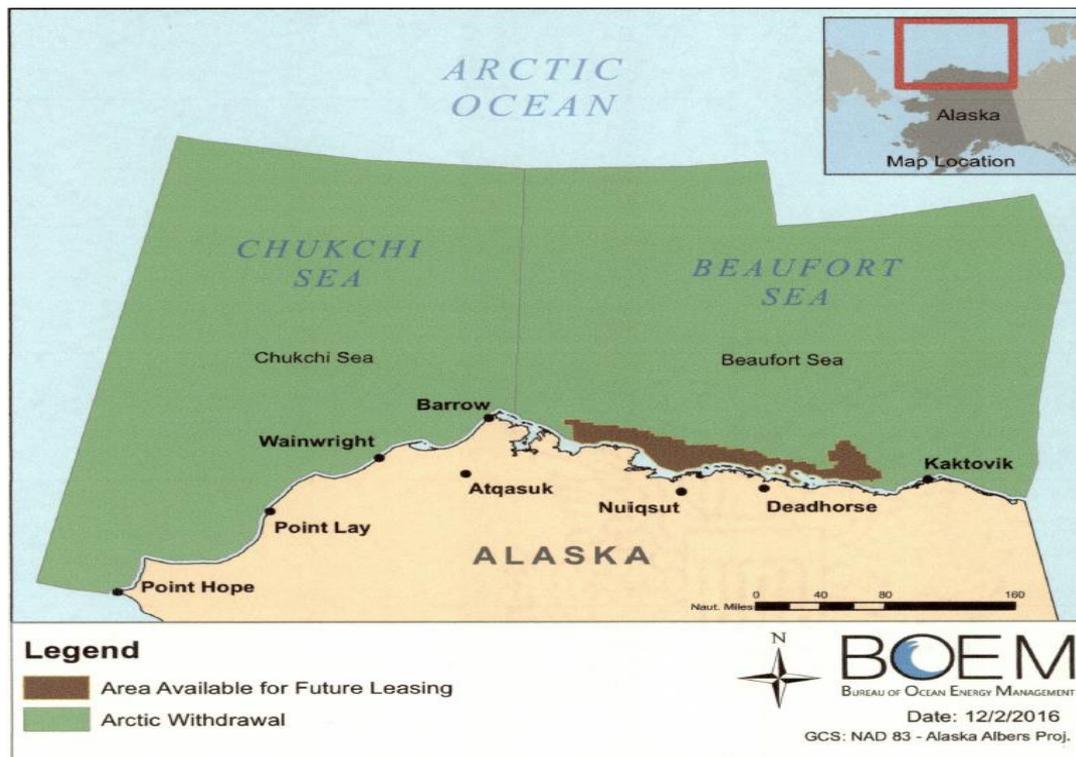


Fig. 1. The US water areas where the development of resources is forbidden (green fill)

In 2010, after the accident on the *Deepwater Horizon* oil platform in the Gulf of Mexico, the state managing offshore development had undergone structural changes. The Minerals Management Service, part of the Department of Natural Resources, was renamed and divided into three independent bodies: The Bureau of Ocean Energy Management (BOEM), the Bureau of Safety and Environmental Enforcement (BOSEE) and the Office of Natural Resources Revenue — (ONRR).

The goal of the reform was to prevent the concentration of resource management, monitoring compliance with safety and environmental standards and revenue collection [2, Baker B., Sidortsov R., p. 17]. According to the authorities, this should help to reduce the risk of corruption in the distribution of licenses and to verify companies' compliance of with environmental requirements, which ultimately will help to avoid accidents such as the *Deepwater Horizon* incident.

The control of the activities on the inland continental shelf within three miles off the coast is the duty of the state bodies of Alaska: the Alaska Oil and Gas Conservation Commission, the Alaska Department of Environmental Conservation, the Alaska Department of Fish and Game and others.

The allocation process of shelf areas among companies intending to conduct exploration begins with the development of a five-year program by the US Department of Natural Resources that defines specific shelf areas to be distributed (the National Outer Continental Shelf Oil and Gas Leasing Program), as well as the auction schedule. The program can be reviewed once a year. When approving the program, the needs of the energy sector and the results of compulsory environmental impact assessment are considered. After the approval of the five-year program, BOEM distributes the licenses through an auction: the winner is the participant who offers the highest price for the plot. The lease agreement is for 10 years, but in case of receiving an industrial inflow

and the need for further exploitation of the field this period can be extended [3, Kaznacheev P.F., Bazaleva R.V., p. 113].

Before drilling on the Arctic shelf, companies approve their exploration plan at BOEM. The document should contain the schedule of the proposed works, the description of the equipment, the location of the wells and other information¹⁷.

In addition, the license holder is required to obtain a special permit from the US Environmental Protection Agency, demonstrating the safety of the equipment used and providing developed measures to reduce oil leakage and an emergency response plan. When working on the shelf, companies must comply with the environmental requirements contained in the US laws: on preventing water and air pollution, on coastal zone management, and others.

In April and July 2016, new safety rules on drilling on the continental shelf were adopted in the United States. They tightened the requirements for the development and operation of equipment used in the development of oil and gas fields. New standards of equipment used to control wells were introduced, and for the first time — the requirement to monitor certain types of drilling operations in real time mode appeared¹⁸.

In general, the admission of oil and gas companies to the Arctic continental shelf in the United States is characterized by a high level of environmental standards and safety requirements. Unlike the other Arctic countries, where the state provides companies with certain flexibility in choosing the means to achieve the statutory tasks, the US laws contain many imperative norms that prescribe specific technical and procedural requirements [4, Dagg J., Holroyd P., p. 30]. After the accident on the oil platform in the Gulf of Mexico, the standards were tightened, and the state functions for protecting the environment, managing licensing processes and collecting oil revenues on the shelf are distributed among different bodies.

Since the beginning of the D. Trump's presidency in the United States, a radical review of state policy in the oil and gas field has been taking place. In January, the Department of Natural Resources submitted a draft new five-year program for the allocation of shelf areas for 2019–2024 and it meant that 90% of the US continental shelf would be under federal jurisdiction¹⁹. This is an unprecedented indicator in the country's history. If approved, the new program would abolish President Obama's decree 2016 on the prohibition of the distribution of most of the shelf, including the Arctic one. This step of the Trump administration met with fierce protests from both environmentalists and opposition-minded authorities. The governors of most states, affected by the

¹⁷ OIL AND GAS. Bureau of Land Management, Department of the Interior. URL: <https://www.blm.gov/programs/energy-and-minerals/oil-and-gas> (Accessed: 20 February 2018).

¹⁸ Vlasti SShA utverdili okonchatelnye pravila provedeniia burovykh rabot na shelfe Arktiki. [The US authorities have approved the final rules for drilling operations on the Arctic shelf]. URL: <https://neftegaz.ru/news/view/150941-Vlasti-SShA-utverdili-okonchatelnye-pravila-provedeniya-burovyh-rabot-na-shelfe-Arktiki> (Accessed: 20 February 2018). [In Russian]

¹⁹ Trump administration aims to open nearly all U.S. offshore to oil drilling. URL: <https://www.reuters.com/article/us-usa-drilling-offshore/trump-administration-aims-to-open-nearly-all-u-s-offshore-to-oil-drilling-idUSKBN1ET1OW> (Accessed: 20 February 2018).

decree of the Department of Natural Resources, stated that drilling offshore could undermine the economic balance of coastal regions, engaged in fisheries and tourism. It is noteworthy that among the few governors who supported the new course of Trump, was the head of Alaska²⁰.

Canada: the priority of environmental security

Among the main directions of Canada's strategy in the Arctic, outlined in the "Canada's Northern Strategy. Our North, Our Heritage, Our Future", 2009, the development of oil and gas fields and diamond mining were named as the main sources of welfare in the short term²¹. Along with oil and gas, in the coastal zone, Canada owns significant reserves of methane, diamond, copper, zinc, mercury, gold, and rare earth metals hydrate.

At the same time, Canada is cautiously approaching the development of the shelf's mineral resources, making the protection of the vulnerable northern environment the priority [5, Konyshov V.N., Sergunin A.A., p. 76]. In 1970, e.g., the Canadian government adopted an act on the prevention of the Arctic water pollution, in which the state reserves the right to control all vessels entering the ice-covered areas of the Northwest Passage (NWP), along the Canadian coast, to protect the environment. At the negotiations on the adoption of the UN Convention on the Law of the Sea 1982, the Canadian delegation was one of the initiators of the adoption of the Art. 234, which provides the coastal state with the special rights to protect the environment in its EEZ in ice-covered waters. For the same reason, Canada took an active part in the development of the Polar Code, which came into force on January 1, 2017, and regulates the safety of vessels and pollution prevention in polar waters.

The focus of the Canadian authorities on the Arctic environment is due to the existence of legislative requirements for companies developing oil and gas deposits on the Canadian shelf. The rules for obtaining licenses for exploration of hydrocarbons in the Arctic, like in the US, were tightened in 2010 after the incident with *Deepwater Horizon*. Such measures are also dictated by the government's declared concern for the rights and needs of the people living on the territories adjacent to the Arctic shelf. According to the National Energy Council of Canada, 70% of food for this people is produced through subsistence farming on land and fishing at sea²².

Responsibility for the regulation of the Canadian shelf development is divided between the two main state bodies. The issuance of licenses for the development of oil and gas resources is the responsibility of the Ministry of Aboriginal Affairs and Northern Development. The Ministry is also engaged in distribution of financial revenues from offshore development, and the solution of a question on expediency of allocation of a fair share of Canadian companies in issuing the licenses. The National Energy Council of Canada is the body responsible for monitoring the company's com-

²⁰ Congress and Governors Resist Offshore Oil Drilling. URL: <http://www.eesi.org/articles/view/congress-and-governors-resist-offshore-oil-drilling> (Accessed: 20 February 2018).

²¹ Canada's Northern Strategy: Our North, Our Heritage, Our Future. URL: <http://www.northernstrategy.gc.ca/cns/cns-eng.asp> (Accessed: 20 February 2018).

²² Review of offshore drilling in the Canadian Arctic. URL: <https://www.neb-one.gc.ca/nrth/rctc/fshdrllngrvw/2011fnlprtr/index-eng.html> (Accessed: 20 February 2018).

pliance with environmental and safety requirements²³. Thus, in Canada, like in the United States and in contrast to, for example, Greenland and Iceland, financial and legal regulation (licensing and revenue sharing) and supervision of environmental and safety regulations are divided between two independent entities.

The licensing process is governed by the hydrocarbon act of Canada²⁴. The exploration license is issued for up to 9 years and grants companies the exclusive right to conduct exploration and offshore drilling for exploration purposes. The validity of the mining license should not exceed 25 years.

Once the company has obtained a license from the Ministry of Aboriginal Affairs and Northern Development, it must apply to the NEB for a special permit for work on the Arctic shelf. The permit is issued after verification of the company's plans compliance with the requirements of environmental protection, industrial safety and subsoil protection. These requirements are in the laws of Canada on the operation of oil and gas fields^{25, 26} and in a great amount of sub-laws.

The company - operator is also obliged to submit a plan for emergency response and a description of the administrative management system to the NEB for approval. In addition, the company's plans are subject to environmental assessment by various environmental impact monitoring committees. These environmental authorities have the right to make recommendations on measures to mitigate the possible negative impact of companies' activities on the environment.

The intensification of work on the Arctic shelf of Canada in the past was largely due to the subsidies and grants provided by the authorities to oil companies, operating in the Beaufort Sea. However, the incentives were repealed in the mid-1980s, which together with the decline in the world oil prices led to a complete cessation of drilling operations in the Beaufort Sea in 1989 [1, Panichkin I.V., p. 165]. Environmental-oriented resource exploration and development regulations do not facilitate the return of oil and gas companies to Canada. In June 2016 *Shell* returned its licenses in the Canadian part of the Beaufort Sea. It happened because of the Canada's government refusal to mitigate legal requirements for drilling in the Arctic.

According to official website of the National Energy Council of Canada, now there are no applications for exploration permits in the Arctic²⁷. Probably, this factor became decisive in the decision of the Canadian Prime Minister to join the request of the US President on the closure of Arctic waters for exploration and production of petroleum at the end of 2016 and to announce the intention to do the same in Canadian waters soon. The intention to ban offshore drilling also

²³ Fact Sheet: Management of Oil and Gas Resources in the Canadian Arctic Offshore. URL: <https://www.neb-one.gc.ca/nrth/pblctn/mngmntlgsrscrcctfs-eng.html> (Accessed: 21 February 2018).

²⁴ Canada Petroleum Resources Act. URL: <http://laws-lois.justice.gc.ca/eng/acts/C-8.5/index.html> (Accessed: 21 February 2018).

²⁵ Canada Oil and Gas Operations Act. URL: <http://laws-lois.justice.gc.ca/eng/acts/O-7/page-1.html> (Accessed: 21 February 2018).

²⁶ Canada Oil and Gas Drilling and Production Regulations. URL: <http://laws-lois.justice.gc.ca/eng/regulations/SOR-2009-315> (Accessed: 21 February 2018).

²⁷ Review of offshore drilling in the Canadian Arctic. URL: <https://www.neb-one.gc.ca/nrth/rctcfffshrdllngrvw/2011fnlprtr/index-eng.html> (Accessed: 21 February 2018).

means that next five years, the Canadian authorities do not expect serious activity from oil and gas companies on the shelf. By the way, this was the reason for the sarcastic comments of Canadian experts: “it is easy to ban drilling on the Arctic shelf, which currently does not exist”, while this step will add political bonuses for demonstrating concern for the environment²⁸.

Thus, the Canadian legislation on regulation of oil and gas activity on the Arctic shelf and the structure and level of requirements to companies has much in common with the US approach in this matter. Minor differences boil down to the fact that Canada has a less extensive system of regulatory legal acts and regulatory agents of the state departments. As in the United States, the functions of oversight of operators’ requirements to ensure environmental and industrial safety, issuing licenses and collecting revenues from the activities of companies are divided between several authorities. The proximity of the two systems is evidenced by the joint decision of the two States to close the Arctic areas for exploration and production of oil and gas. High environmental standards and stricter safety requirements could become one of the reasons why the oil companies reduced interest in the shelf and froze the resource extraction projects in the Arctic waters of Canada.

Iceland: on its way to legal foundations

Iceland lies South of the Arctic Circle, and the state's access to the Arctic Ocean is blocked by exclusive economic zones and the continental shelf of Denmark (Greenland) and Norway. But since the country is near the Arctic waters, it is one of the eight members of the Arctic Council.

Due to the geographical proximity to the Arctic Ocean, Iceland faces almost the same climatic difficulties in the development of the shelf resources as the States of the Arctic “five”. There are also specific challenges. Oil and gas reserves on the Icelandic shelf are located at great depths, and the surface above the sea is often covered with thick fog²⁹. On the other hand, in this region, there is no typical Arctic problem of ice, due to the action of the warm Gulf Stream.

The exploration and production of hydrocarbons on the shelf is not as acute for Iceland as for other Arctic States. Iceland was one of the first European countries to account for almost all the electricity consumed by renewable energy. According to the International Energy Agency (IEA), the share of alternative energy in the energy balance of the state is almost 100%, or 99.99%. The main source of energy is hydroelectric power plants, which account for 71% of the total energy produced. Next – geothermal sources with a share in the total balance of 28%. Much smaller volumes of wind power are used, but the share of oil and coal sources of energy in the country is very

²⁸ Canada, U.S. to ban offshore oil and gas licences in Arctic waters. URL: <https://www.ctvnews.ca/canada/canada-u-s-to-ban-offshore-oil-and-gas-licences-in-arctic-waters-1.3211436> (Accessed: 21 February 2018).

²⁹ Iceland, like all Arctic nations, is Drilling for Oil. URL: <https://www.americansecurityproject.org/iceland-like-all-arctic-nations-is-drilling-for-oil> (Accessed: 21 February 2018).

small — less than 0.01%³⁰. Reliance on renewable energy is laid down in the strategy of sustainable development of the state.

Nevertheless, the transport sector of the Icelandic economy remains dependent on oil imports. Thus, according to the International Energy Agency, in 2014, Iceland imported more than half a million tons of petroleum products for home use³¹.

To reduce the country's dependence on oil supplies in 2009, the government of Iceland announced the opening of its continental shelf for the exploitation of hydrocarbons [6, Erlendsson G., p. 57]. In 2013, it was decided to start oil production at the seabed in the Dreki area on the Jan Mayen ridge. At once two licenses for development of fields were received by the *Petoro Iceland* as a company, subsidiary of the *Norwegian Petoro* which is in state ownership. Other license holders were Chinese *CNOOC* and British *Ithaca Energy*³².

Iceland has The Territorial sea, Exclusive Economic Zone and Continental Shelf Act of 1979. This act was drawn up based on international law in force at that time. The 1979 law did not regulate specific issues of developing oil and gas fields on the shelf. The government of Iceland adopted the detailing legal acts after requests of the oil companies to begin development of a legal framework on drilling on the continental shelf [6 Erlendsson G., p. 59]. Among them we should mention: the law on the Icelandic state ownership of resources on the shelf, 1990; the law on supervision over the use of reserves of mineral resources, 1998 and a law on the prospecting, exploration and production of hydrocarbons, 2001. These acts were repeatedly amended. In addition, Icelandic executive bodies issued some sub-laws on the development of offshore resources, it's the environmental aspects, production safety standards, occupational safety, etc.

In addition to domestic legislation, international agreements should also be mentioned. In 1981 and 2008, Iceland and Norway signed treaties on the delimitation of the Jan Mayen continental shelf and on the establishment of a regime for the transboundary deposits development. The Contracting States have a mutual right to a 25% stake in the mining activities proposed by the opposing party³³. This contract is also aimed at attracting Norwegian companies that have rich experience and modern technologies for shelf oil extracting.

Iceland is part of the European Economic Area, it has also implemented the EU directives on granting licenses for prospecting, exploration and production of hydrocarbons (e.g., Directive 94/22 / EC).

³⁰ Islandii teper neft i gaz ne nuzhny. [Iceland now does not need oil and gas] URL: <http://pro-arctic.ru/10/12/2016/news/24479#read> (Accessed: 21 February 2018). [In Russian]

³¹ Iceland: Oil for 2014 International Energy Agency Official Web Site. URL: <http://www.iea.org/statistics/statistics-search/report/?country=ICELAND&product=Oil&year=2014> (Accessed: 21 February 2018).

³² Iceland, like all Arctic nations, is Drilling for Oil. URL: <https://www.americansecurityproject.org/iceland-like-all-arctic-nations-is-drilling-for-oil> (Accessed: 21 February 2018).

³³ Agreement between Iceland and Norway on the Continental Shelf in the area between Iceland and Jan Mayen. URL: http://www.nea.is/media/olia/JM_agreement_Iceland_Norway_1981.pdf (Accessed: 21 February 2018).

In the law 2001³⁴, it is enshrined that the state owns hydrocarbons on its shelf. However, the owner of the license to develop the field can get the rights to the resources it has obtained. The authority responsible for issuing licenses is the National Agency for Energy (Orkustofnun). The National Agency consults with the Ministries of Environment and Fisheries before granting the license. Moreover, if the application covers the water area within one nautical mile from the shore, the agency is obliged to seek the opinion of the relevant municipality.

Licenses for the search of hydrocarbons are issued for up to 3 years, for exploration — up to 16 years, for extraction - up to 30 years, from the moment of issuing a license for exploration. Exploration and production licenses give operators exclusive rights to the relevant work on the shelf.

Permission for work is granted to companies that fully meet the requirements for the offshore experience and financial resources. The law 2001 empowers the National Agency to use more stringent requirements for companies than prescribed by the rules. The license holder pays an annual fee for the development of the deposit to the state budget. The need for state participation in the exploration and production of oil and gas resources is decided by the Ministry of Industry, Energy and Tourism in each case of issuing licenses.

The law defines the obligations of operators to ensure the safety of production and environmental protection. The license holder ensures “responsible” performance of works “in accordance with the current legislation”. And further “in the course of work on the exploration and production of hydrocarbon resources, public interests should be taken into account” (Article 10). Specific requirements are determined by the National Energy Agency. In addition, companies are required to comply with the best international drilling standards on the shelf (Article 13). Supervision over compliance with the appropriate level of safety and environmental protection measures is carried out by the National Agency.

Thus, in Iceland, where the level of development of the oil and gas industry is significantly inferior to the renewable energy sector, the legislative regulation of offshore hydrocarbon production is not detailed. The main normative act in this sphere is the law of 2001, which defines only the general framework for the behavior of offshore operators. In fact, the only authority that oversees the companies and develops specific requirements for them in the field of production safety and environmental protection is the National Energy Agency.

Iceland is aware of the inability to extract oil and gas on the shelf without the help of foreign companies. To attract technology and finance from outside, the state is gradually expanding the necessary national legal framework. In addition, the authorities are making efforts at the international level. So, the agreements with Norway on the regime of joint development of cross-border deposits, as well as the establishment of close economic ties with Chinese enterprises in-

³⁴ Act on Prospecting, Exploration and Production of Hydrocarbons No. 13 of 13 March 2001. Unofficial translation. URL: <https://nea.is/media/olia/Act-No-13-2001-03102011.pdf> (Accessed: 21 February 2018).

vesting in the island's infrastructure, indicate the course of the Icelandic authorities to develop their arctic possessions by opening the country foreign countries and companies.

Greenland (Denmark): emphasis on the international standards

Greenland, like the Faroe Islands, is a self-governing territory and a part of Denmark. Because of Greenland, Denmark today is a full participant in the Arctic “five” and an applicant for significant areas of the Arctic continental shelf.

In 2008, a referendum on self-government was held in Greenland. On May 20, 2009, the Danish Parliament passed a law on the extended autonomy of Greenland³⁵. In accordance with it, Greenland Self-Government Bodies have wide autonomous powers on home policy issues. The regulation of the mineral deposits development is still within the competence of local authorities. Nevertheless, the Greenland Self-Government authorities can only negotiate and conclude agreements with foreign states on behalf of the Kingdom of Denmark. In addition, the island remains largely dependent on subsidies.

Greenland owns wide variety of minerals. Thus, the results of geological exploration revealed the presence of conglomerates of deficit chemical elements (lithium, beryllium, niobium, etc.), rare earth metals, uranium and thorium. The island has large reserves of gold, diamonds, iron, nickel and zinc [7, Tulupov D.S., p. 4].

The development of oil and gas resources on the continental shelf of Greenland dates to the 1970s. In 1976 and 1977 American and European companies drilled 5 exploratory wells on the Greenland shelf that were “dry”, and therefore their interest to continue exploration had been lost. Several attempts to find commercial oil and gas reserves were undertaken in 1990s, but they also failed [1, Panichkin I.V., p. 164].

In 2006–2012 The Greenland government issued several licenses to foreign companies working in the Baffin Sea. Exploratory wells were drilled into the shallow water in Baffin Bay, but commercial oil reserves could not be found. The decline in world oil prices affected the plans of the oil and gas companies, many of which rejected the continuation of work on the Greenland shelf³⁶.

Nevertheless, in the development strategy of the mineral resource industry in Greenland for the period 2014–2018, the goal is to accelerate the economic development by creating new opportunities for profit and creating jobs in the oil and gas production. One of the means of achieving this goal is also the improvement of the legislative base about the licensing of offshore exploration and production activities. Until 2018, the Government of Greenland planned to put up

³⁵ Act on Greenland Self-Government. Act no. 473 of 12 June 2009. URL: <http://naalakkersuisut.gl/~media/Nanoq/Files/Attached%20Files/Engelske-tekster/Act%20on%20Greenland.pdf> (Accessed: 21 February 2018).

³⁶ Razrabotka morskikh neftegazovykh resursov Arktiki. [Development of the marine oil resources in the Arctic] Rider RSM. URL: <http://russiancouncil.ru/arcticoil> (Accessed: 21 February 2018). [In Russian]

for sale several licensed sites on the west coast of the island³⁷.

Act on Greenland Self-Government 2009³⁸ found that the revenue from the mining in Greenland goes to the local government budget. However, the annual subsidy of Denmark is reduced by an amount corresponding to half of the profits from mineral resource development.

A characteristic feature of Greenland's legislation on offshore hydrocarbon development is that all aspects of this activity are regulated by a single normative legal act — the Mineral Resources Act 2010³⁹. The Exploration Drilling Guidelines was developed in accordance with this act⁴⁰. At the same time, these regulatory acts contain a minimum of specific requirements for companies and refer to the need to apply the best international standards and technologies.

In each oil and gas license, the state's share is 6.25% due to the participation of the fully state-owned company *Nunaoil*⁴¹. In accordance with the Law on Mineral Resources, licensees for the offshore development in Greenland must use local labor and enterprises to ensure their core business within reasonable limits (with their accessibility and competitiveness).

Regulation of the all the activities on the shelf of Greenland belong to one agency — the Bureau of Minerals and Petroleum [4, Dagg J., Holroyd P., p. 34]. Licenses for exploration are issued for a period of 10 or 16 years (depending on the location of the exploration area). If the company finds commercial oil or gas reserves, the license may be renewed for up to 30 years. Typically, the applicant must submit a production program with a description of the specific work carried out during the validity of the license. The total term of the license is divided into three stages. After each of these stages, the license holder decides either to refuse or to continue the work. In the second case, the company must refuse from 30% of the exploration area⁴².

The new mineral and raw materials strategy for 2014–2018 introduced some changes to attract new investments. Moreover, a special licensing regime was introduced, and made companies submitting a work program for three years. The license period in this case is not divided into stages, as in the standard procedure. If by the end of three years the company considers the exploration area promising, it has the right to apply for renewal for another three years⁴³.

Under this regime, the license holder has greater flexibility in revising its program of work. It is expected that the special regime will apply to the poorly studied areas of the shelf. The great-

³⁷ Kay J., Thorup S. Oil and Gas in Greenland — Still on Ice? URL: <http://www.mondaq.com/x/366832/Oil+Gas+Electricity/Oil+And+Gas+In+Greenland+Still+On+Ice> (Accessed: 21 February 2018).

³⁸ Zakon Danii o samoupravlenii Grenlandii [Danish Act on Greenland Self-Government]. URL: <http://worldconstitutions.ru/?p=300> (Accessed: 21 February 2018). [In Russian]

³⁹ Greenland Parliament Act of 7 December 2009 on mineral resources and mineral resource activities (the Mineral Resources Act). URL: https://www.govmin.gl/images/stories/faelles/mineral_resources_act_unofficial_translation.pdf (Accessed: 21 February 2018).

⁴⁰ Exploration Drilling Guidelines. Greenland Bureau of Minerals and Petroleum. URL: https://www.govmin.gl/images/stories/petroleum/110502_Drilling_Guidelines.pdf (Accessed: 21 February 2018).

⁴¹ Oil and Gas Regulation 2018. Greenland. URL: <https://iclg.com/practice-areas/oil-and-gas-laws-and-regulations/greenland> (Accessed: 21 February 2018).

⁴² Kay J., Thorup S. Oil and Gas in Greenland — Still on Ice? URL: <http://www.mondaq.com/x/366832/Oil+Gas+Electricity/Oil+And+Gas+In+Greenland+Still+On+Ice> (Accessed: 21 February 2018).

⁴³ Ibid.

est benefits in this case are small companies that do not have significant financial resources and technologies but have experience in research on the shelf at an early stage. After they receive information about the prospects of the field, they can involve large enterprises in the development. In addition, the mineral resource strategy for 2014–2018 made changes in Greenland's tax legislation and make it possible to expand the range of companies applying for licenses. The amount of tax payments should not exceed 52.5%⁴⁴. This is lower than interest rates in other states in the region.

So, by 2018, the Greenland legislative base in the oil and gas sector has been under construction. Unlike other Arctic States, the authorities have shown a willingness to replace specific technological and administrative requirements for companies with reference to the best available international practices.

Low oil and gas prices, the harsh climate conditions in Greenland and lack of infrastructure pose serious challenges to the development of the oil and gas industry. Despite this, the authorities of Greenland demonstrate optimism in this matter due to the recent measures to change local laws on the offshore development, aimed at attraction of new investment.

Norway: self-regulation as a factor of the sustainable development

At the conference “Arctic frontiers” held in Norway in January 2017, the Prime Minister E. Solberg expressed confidence that the economic benefits that the Arctic provided to coastal countries did not contradict the thesis about the need to protect the vulnerable nature of the region⁴⁵. Norway was indeed a Prime example of the effective development of the biological and mineral resources of the Northern region while meeting a high level of environmental standards.

In short time, Norway has become one of the world's largest oil and gas exporters since the discovery of hydrocarbon reserves on its continental shelf. The Kingdom is an undoubted leader in the underwater technologies for the development of offshore oil and gas fields. The oil and gas industry has become a powerful impetus in the rise of the country's economy. In many ways, Norway's current and future economic prosperity depends on energy resources⁴⁶. This was facilitated by a well-developed and balanced legal regime of subsoil use on the Norwegian continental shelf.

The main coordinator of the offshore oil and gas activities is the Ministry of Oil and Energy. Its structural units carry out general administrative functions and develop relevant by-laws. The supervision of compliance with the rules and requirements for offshore activities related to the protection of life and health in the workplace, environmental protection and other aspects of activity, from the stage of prospecting to preservation of drilling wells. All this is carried out by the

⁴⁴ Oil and Gas Regulation 2018. Greenland. URL: <https://iclg.com/practice-areas/oil-and-gas-laws-and-regulations/greenland> (Accessed: 21 February 2018)

⁴⁵ Speech by Prime Minister Erna Solberg at the Arctic Frontiers conference, 23 January 2017. URL: <https://www.regjeringen.no/en/aktuelt/arctic-frontiers/id2528099/?selectLanguage=no/id4> (Accessed: 20 February 2018)

⁴⁶ Ryzhova A.V. Norvegiia osvivaet resursy Arktiki. [Norway develops the Arctic resources]. URL: <https://riss.ru/analytics/28154> (Accessed: 21 February 2018). [In Russian]

Petroleum Safety Authority (PSA) — a subdivision of the Ministry of Labor of Norway⁴⁷. The collection of taxes from oil and gas activities falls within the competence of the Ministry of Finance⁴⁸.

In addition, the authorities, that controls the development of offshore fields. include the Norwegian Environment Agency, the Petroleum Safety Authority of Norway, etc.

The main legal act on oil and gas production on the continental shelf of Norway is the Law on Petroleum Activities, adopted in 1996⁴⁹. This law secures the state ownership of all hydrocarbon deposits in water areas. The whole continental shelf of Norway is divided into geographic rectangular blocks measuring 15' long and 20' latitude. In Norway, companies are also given a corresponding license for exploring or extracting resources, to develop the oil and gas resources of the Norwegian shelf. Before licensing, a mandatory assessment of the impact of oil and gas activity on the environment is usually conducted and social, economic and other effects industrial activities are identified.

The license for exploring is non-exclusive and does not provide a priority right to the holder for obtaining a production license. A license for exploration is valid no more than three years.

In contrast, production licenses are exclusive and issued by the state for 10 years. Applications for licenses are submitted to legal entities and individuals, either singly or in groups. After carrying out geological exploration, the license holder, as a rule, has the right to retain up to half of the license area for up to 30 years, and in some cases up to 50 years (articles 3–9 of the Law 1996) [8, Kokin V.]. If the results are negative, the license can be returned. The holder of a license becomes the owner of the resources obtained.

According to the Law 1996, the state has a share and direct participation. In 1973–1991, such a share could not be less than 50%, but in the subsequent licensing rounds it was constantly reduced. Until recently, direct financial participation on behalf of the state was managed through *Statoil*. In recent years, the state has established two specialized companies: *Petoro AS* — for the management of public direct financial participation, and *Gassko AS* — for the operation of the gas transportation system⁵⁰.

Legal acts on the exploration and production of oil and gas on the shelf also include laws on the protection of life and health of employees, on safety at work, on the prevention of harmful emissions, etc.

Norway differs from the other Arctic States. The Kingdom's approach to the legal regulation of oil and gas activities on the shelf is based on the principle of self-regulation of companies. The role of the state is to define safety standards. The law sets out the obligations of companies to

⁴⁷ Role and area of responsibility. Petroleum Safety Authority Norway. URL: <http://www.psa.no/role-and-area-of-responsibility/category916.html> (Accessed: 21 February 2018).

⁴⁸ State Organisation of Petroleum Activities. URL: <http://www.norskipetroleum.no/en/framework/state-organisation-of-petroleum-activites> (Accessed: 21 February 2018).

⁴⁹ Act 29 November 1996 No. 72 relating to petroleum activities. Norwegian Petroleum Directorate. URL: <http://www.npd.no/en/Regulations/Acts/Petroleum-activities-act/> (Accessed: 20 February 2018).

⁵⁰ State Organisation of Petroleum Activities. URL: <http://www.norskipetroleum.no/en/framework/state-organisation-of-petroleum-activites> (Accessed: 21 February 2018).

systematically identify risks associated with offshore operations, minimize and control them, as well as to respond in emergency situations. In this case, the operators have the choice of a means of achieving the law's task [4, Dagg J., Holroyd P., p. 38]. E.g., the Petroleum Safety Authority does the controls the implementation of laws on environmental protection, recommends certain practices, but usually offers the possibility of applying an alternative method of performing the task. Mandatory standards and requirements prevail in the US and Canada's laws, but in the legislation of Norway, they are minimized. At the same time, this approach assumes that the responsibility for the safety of exploration and production lies primarily with the companies⁵¹. In addition, the Kingdom has an extremely high level of the marginal rate of profit tax — 78% [3, Kaznacheev P.F., Bazaleva R.V., p. 123].

Thus, compare to the other Arctic states, the Norwegian regulation system for oil and gas activities on the shelf is highly developed; it has a more clearly defined hierarchy of regulations and provides companies with considerable flexibility in achieving the goal of ensuring environmental and industrial safety. At the same time, freedom of action means increased responsibility for the result and in terms of meeting the requirements for protecting the environment of the Arctic.

The described advantages of the Norwegian system seem to be one of the key factors in the attractiveness of the Kingdom for foreign investment in the oil and gas industry and the preservation of the leader status in oil and gas production in the Arctic. At the same time, Norway remains a state that successfully combines active economic activity in the region and eco-orientation.

Conclusion

The legislation of the Arctic States on regulation of oil and gas activities on the continental shelf has both similarities and distinctive features. The commonality of approaches is due to natural and climatic challenges and technical difficulties associated with the development of offshore fields in the Far North and the need for state control. Thus, all coastal states issue for the offshore field development, and have a system of state bodies to make the norms for such activities and monitor their implementation. As a rule, before obtaining a license from the state, companies are required to submit a schedule of works, a plan to respond to emergencies, and prove their financial, administrative and technical status, etc.

However, distinctive features in national regulatory frameworks exist. The United States and Canada have a high level of environmental standards and safety requirements. At the same time, considering the course of D. Trump on the active development of the oil and gas industry in the country, the United States is likely to make liberal changes in the national legislation. In contrast to the United States and Canada, Iceland, Greenland (Denmark) and Norway are more liberal in relation to choosing the means of achieving the goals, secured by home legislation.

⁵¹ Report OLF/NOFO — Summary of differences between offshore drilling regulations in Norway and U.S. Gulf of Mexico. URL: <https://www.norog.no/contentassets/4ed0dc5bf143402ea7ef4c6fb9953eb2/report-no-2010-1220-summary-of-differences-rev-02-2010-08-27-signed2.pdf> (Accessed: 21 February 2018).

Some differences in the structure of the supervisory authorities are also significant. In the USA, Canada and Norway, the supervision of production safety, environmental protection, licensing and collection of revenues from oil production on the shelf are distributed among different state bodies. In Iceland and Greenland, they are administered by one agency.

The legislation of the Arctic states also differs in degree of elaboration. Norway has the most structured and developed system of legal acts, which largely determines the leading position of the Kingdom in the extraction of oil and gas resources not only in the Arctic, but also in the world.

An extensive system of laws and regulations is made in the United States and Canada, but each act is dedicated to only one area of regulation (e.g., oil spill prevention, protection of life and health at the workplace, etc.). So, these acts and regulations do not form a single structure.

Iceland and Greenland have just started the development of the legal framework for the development of the Arctic hydrocarbons. In these states, all aspects of the offshore extraction are regulated through a single law, which contains a minimum of specific rules and refers to the best available international practices and standards.

The experience of foreign countries in the legal regulation of oil and gas exploration and production in the Arctic can be applied to improve our national legislation. So, one should consider a special mode of licensing for geological study and exploration, the way it has been done in Greenland. This mode involves the benefits for small companies, experienced in the research of the offshore areas, at the beginning. After exploration work is done, such enterprises will sell the results of their work to larger companies involved in production. Norway's legislation is an example of a successful combination of the effective economic performance and environmental orientation. The Kingdom places the companies at a higher level of responsibility for the results by providing them with considerable flexibility in the means of achieving environmental and labor safety. Such a form of interaction should serve an effective tool for mutually beneficial relations between the state and oil and gas companies in the Arctic, given the established system of state control.

One of the areas of international cooperation in the Arctic is the synchronization of national approaches to regulating the development of resources. Attempts have already been made to develop common legislative requirements for the Arctic coastal states within the framework of the Arctic Council. In 2009, the Arctic Council worked out the Offshore Oil and Gas Guidelines aimed at a unification of the standards and practices of the offshore resource extraction. The Guidelines contain recommendations on security issues related to the searching, exploration and production of oil and gas in the Arctic. However, the Guidelines do not have binding legal force. One of the three pan-Arctic binding international agreements directly but partly relates to the exploration and production of hydrocarbons — on cooperation in the liquidation of oil spills.

Under these conditions, an important step forward in ensuring sustainable development of the Arctic would be the establishment of the legal framework for the development of hydrocar-

bons on the Arctic shelf, exchange of information and best practices, cooperation to prevent the negative impact of oil and gas activities on the ecosystems of the North. Such work could be undertaken by the Arctic Council, experienced in this field.

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Russian-Norwegian borderland in the foreign historical literature in the 20th — beginning of the 21st centuries*

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Abstract. The article presents a review of foreign research on the history of Russian-Norwegian borderland in 16th — early 20th centuries. The dominance of the empirical positivism and historical nationalism in the history of the Northern frontier delimitation led to the formation of relatively stable and unilateral interpretations of the Russian-Norwegian border in the first half of the 20th century. The state was perceived as an a priori objective phenomenon. That's why historians and legal scholars understood the "border" as a static instrument of political power, ignoring its multipotential phenomena and variety of its subjects. The Scandinavian historiography has developed a historical tradition of perception of the Treaty 1826 on the delimitation of "common districts" as a fair act of institutionalization of borders over the common possession. As a part of this tradition, it may seem that Norwegian territorial claims did not look expansive in relation to Russia. However, for a long time the Scandinavian historians advocated the theory that the Russian Empire, driven by the idea of permanent territorial extensions, had posed a threat to the Norwegian Finmark. So, the delineation of the Northern frontier was a diplomatic deal aimed at creating legitimate barriers to further Russian expansion in Western Europe through the Norwegian Arctic. Thus, the author concludes that from the methodological perspective, the evolution of the Russian-Norwegian borderlands is still not sufficiently developed in foreign historiography and requires closer attention to create high-quality reconstruction of the Russian-Norwegian borderland evolution from the territory with frontlines configuration of political boundaries in the 13th century — the early 19th century to the space with a sealed political boundary in the 20th century.

Keywords: *history, border, frontier, historiography, the Russian-Norwegian relations, the Russian-Norwegian borderland, the Sami.*

Introduction

The definition, control and protection of the state border are the most important functions of the state. It underlines the sovereignty and demonstrates national independence and exclusivity. However, the classical perception of the boundary as a line that forms the limits of territoriality of the border states, did not exist at all periods of human history.

In time of Antiquity and the Middle Ages, in Europe, a frontier line conditionally limited the sovereignty of kingdoms in relation to each other instead of a clear system of borders. Frontiers left the physical borders of the state open to migration and development by other ethnic groups and ruling subjects [1, Paasi A., pp. 19–22].

In 1648, the Westphalian Peace Treaty put an end to the bloody conflicts for the inheritance rights for territories that devastated Europe. A new system of interstate relations was es-

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tablished. The principle of “state sovereignty” emerged in international legal practice and introduced a fundamentally different content in the meaning and functions of the border, completing the medieval practice of joint possessions. Because of the agreement, the autonomy of the power was limited to the boundaries of natural and geographical boundaries [2, Minghi J., pp. 36–37]. Clear physical boundaries served an important criterion because they allowed to preserve the state sovereignty from an external threat and to legitimize the state's powers within a single outlined territory.

Since the 16th century, the restriction of the physico-political space of sovereignty led to a rethinking of the relationship of the authorities and their powers to the subsequent consolidation of the state, i.e., it changed the functions of the state from collecting taxes and judicial proceedings to the expansion into the economic, social and cultural spheres of societies [3, Häkli J., p. 11–12]. Nevertheless, the institutionalization of the European borders system as clear, permanently protected lines was completed only in the 19th century.

In the 18th–19th centuries the development of science, the rationalization of government, the growth of the state's knowledge on its own territory, population and resources, the spread of nationalism and the formation of “people's sovereignty” played a key role in creating new forms of territoriality and criteria for demarcating borders [3, Häkli J., pp. 12–13].

Thus, in 19th century, in time of the national consolidation in Europe, the concept of “people's sovereignty” emerged. It was based on the idea of national exclusivity and the right of every nation to its own sovereignty and territory. The transition from dynastic to popular sovereignty marked a significant expansion of the actors, as well as criteria for the delimitation of territories [1, p. 21]. The socio-cultural space of ethnic groups in the neighboring territory played the role of determining factor in the delimitation of the physical landscape. This affected the overall perception of the border as a historically established line dividing the formed socio-cultural boundaries of nation-states.

A short excursion into the history of the perception of the border and the territoriality of the European states shows the apparent multidimensionality of the boundary phenomenon and the complexity of its formation. Often, the problem of delineating political boundaries is the main reason for establishing the first diplomatic relations between states. It plays a key role in the development of their relations and serves a motive for conflicts and closer cooperation. The Russian-Norwegian relations are not an exception to these rules.

Historical introduction to the issue

By the 16th century, the development of the Northern territories and the expansion of the Moscow state and Norway in Union with Denmark had led to the collision of two consolidation centers of the political space and the two socio-cultural communities: Western European, Protestant and Russian, Orthodox. The interest of both states in the expansion of the political space and tax zones led to the first contacts and relations [4, Johnson O.A., pp. 231–236].

By the beginning of the 17th century, the Russian-Norwegian frontier – the frontier in adjacent areas of Eastern Finmark and the Western part of the Kola Peninsula – had decreased significantly and attained the borders in which it existed until 1826. According to Danish legal documents, the frontier was called “common districts” (fellesdistrikter); according to the Russian — “dvoedannie pogosti” — the territory of three cemeteries/districts between the Sami settlements along rivers Navdemo (Neiden), the Groove (Pasvik) and Pechenga (Pasen). The absence of a common historical terminology in Norway and Russia led to the search for a more universal concept. From the point of view of the location, the common area can be identified unconditional “North” in relation to the centers. So, we proposed the concept of “Northern frontier” as the most acceptable for the common border of Russia — Denmark/Norway, Sweden/Norway in 17th — early 19th centuries.

Despite a certain irritation, the authorities of Norway and Russia mutually recognized the common rights to use the resources of the three districts and collect taxes from the indigenous population. However, the right to economic development of the districts was not strictly regulated. This led to local conflicts caused by the collision of economic interests of Russian and Norwegian industrialists and conflicts between the newly arrived Norwegian Sami and indigenous Russian Sami-Skolts.

The political map of Europe changed after the Napoleonic wars (1805–1814) and the necessary prerequisites for delineating the political boundary between Russia and Sweden-Norway in the Far North were formed. In 1814, following the conclusion of the Swedish-Norwegian Union, Norway was gained wide autonomy. The functions of the Norwegian authorities in the management of their territory had significantly expanded, serving as a catalyst for national consolidation and the pressure of the Norwegian elite on the Swedish leadership in the direction of an early delineation of the three common districts, the availability of which limited the ability to create effective forms of control, management and development of the adjacent territory. At the same time, the alliance between the Russian Empire and the Swedish kingdom against Napoleon's France played a key role in changing the nature of Russian-Swedish relations from confrontation to cooperation. Thus, the positive attitude of the Russian government towards its northern neighbor and the desire of the King of Sweden-Norway, Karl Johan, to solve the problem of the frontier quickly contributed to the success of diplomatic efforts for joint delimitation of the border and the ratification of the border convention on May 2/14, 1826.

The boundary, established in 1826, affected the economic interests of the inhabitants of the Arkhangelsk Province. After the demarcation, a part of the disputed territories – the Nyavdem pogost and the northwestern part of the Pazretsky pogost remained outside Norway. However, the population of the Arkhangelsk Province considered all three settlements Russian land. They argued that the Russian-Norwegian border had already existed, and it was much more northwest than the one established by the convention of 1826. Therefore, immediately after the ratification of the convention, the emergence of a “new frontier” caused its condemnation by the regional

authorities and a broad discussion among the political and scientific elites of the province, actively involved in the evaluation of the treaty and its impact on the further development of the border area. In the 1860s, some well-known researchers of the Russian North — Dolinsky and Sidorov raised the issue of the unfair delineation at a meeting in the Imperial Free Economic Society and initiated a nationwide discussion of the border issue. Participants in these discussions were the Arkhangelsk historians and local folklore specialists of the second half of the 19th — early 20th centuries.

Setting the issue

Almost always hidden or obvious dissatisfaction with the results of differentiation gradually turns into the plane of subsequent scientific, historical and political discussions, accompanied by attempts to correct existing boundaries. The controversy in the assessments of the demarcation of 1826 between Norwegian and Russian scientists does not cease to this day [5, Zaikov K., pp. 1164–1172].

At the beginning of the 21st century, the increased interest in the theme was caused by the dynamics of Russian-Norwegian relations over the past three decades. They were characterized by a variable increase in cooperation and, at the same time, competition in the issue of delimitation in the Barents Sea, which finally culminated in the signing of a treaty on the delimitation of the maritime boundary in 2010. In this regard, the author of the article sets himself the task of studying the foreign historiography of the northern frontier in the 18th — early 20th centuries and determines the current state of the studies on this theme.

Diplomatic and political history of the Russian-Norwegian Borderland

The most complete work on the history of the northern frontier in the 14th–19th centuries is the monograph of the Norwegian historian O.A. Jonsen's "The Political History of Finmark", published in 1923. It is based on a wide range of sources from the central archives of Norway, Sweden, Denmark and Russia. The author tried to reconstruct the political history of the border area, and to explain the architecture of the border of 1826 [4].

Considering the Norwegian-Novgorod treaty of 1326 the starting point for the political status of Finmark and the Murmansk coast of the Kola Peninsula, O.A. Jonsen admitted the absence of political boundaries in the Far North in the 14th — first half of the 16th centuries. Instead of political boundaries, there were only borders of the general fiscal jurisdiction of Norway, Sweden and Russia. These zones were much larger than the territory of the "common districts" of the 17th–19th centuries. The author believed that the desire of states to set up clear boundaries led to the consolidation of governance and colonization, which became the main factors in the gradual reduction of cross-zones in the 16th–18th centuries. Jonsen O.A. referred the emergence of the conditional political and ethno-cultural borders of Norway and Russia that passed through the territory of the "common districts" — the three settlements of the orthodox Sami (Skolt) — Njàvdàn (the Norwegian Neiden, the Russian Nyavdem Pogost), Báhcaveadji (The Norwegian Pasvig, the Russian

Pazrecki Pogost), Beahcan (the Norwegian Peisen, Russian Pechenga Pogost) in the Southern Va-ranger — to the end of the 16th century [4, p. 84, 195–210].

Norwegian scholar first revealed the growth of fishing activity of Norwegian Sami on the territory of the common districts and transition from fishing to settler colonization, observed since the second half of the 18th century [4, pp. 203–215]. This caused discontent among the indigenous population — the Russian Sami — and was reflected in the growth of commercial conflicts. This accelerated the setup of the “districts” issue in the early 19th century. Johnson O.A. made an accurate historical reconstruction of the Russian Skolt Sami boundaries, comparing the protocol by major P. Schnitler and Norwegian and Swedish maps of the 18th — beginning of 20th century [4, pp. 195–200, 211–215]. The reconstruction of the siits borders was supplemented by anthropologist V. Tanner and Russian historian M.G. Kuchinsky [6, Tanner V.; 7, Kuchinsky M.G.].

Jonsen O.A. noticed that the Norwegian regional authorities of the 17th century considered Russian fishing activity near the Norwegian coasts as a possible threat to the security of Eastern Finmark. This predetermined the aspirations of the Finmark officials to the delimitation of the districts and their subsequent attempts to organize diplomatic negotiations with the Russian Empire at the end of the century [4, pp. 217–225]. The O.A. Johnson’s idea on the impact of the growing Pomor fisheries on the delimitation issue was refined by T. Christiansen and reflected in the publications of Y.P. Nielsen and E. Niemi [8, Christiansen, pp. 26–52; 9, Niemi, pp. 387–415; 10, Nielsen J.P., Zaikov K., pp. 67–86].

The undoubted merit of the scholar is the introduction of many sources into scientific circulation: documents of the Storting committees and the Finance Department, responsible for the boundary projects and the protocols of the Galiamin — Spork Delimitation Commission 1825 and the Galiamin - Meilander Demarcation Commission 1826 [4, app.].

Despite the rich source material, in methodological terms, O. A. Johnson’s study was written in the era of empirical positivism and therefore it has significant shortcomings. The author perceived the state as an objective and ideologically static historical subject. The main feature of its territorial policy was the desire for territorial expansion and the acquisition of clear borders of sovereignty [4, pp. 284–258]. This approach to the public policy has led to a significant distortion of the local and regional actors’ roles in the spatial standardization of Norway and Russia and exaggerated perception of the border state policy. The facts, related to the administrative and economic activity of Russian citizens and officials on the territory of the districts, O.A. Johnson saw hidden motives of the Russian government. Thus, the scholar explains the growth of taxation, attempts to map the disputed area and expansion of fishing activity of Pomors by territorial expansion of Russia in the North-West [4, pp. 210–211, 219–222, 231–235]. Therefore, O.A. Johnson considered the aspirations of the Norwegian Finmark authorities to territorial surveying in the late 18th century to be a response to the hidden Russian expansion from the East [4, pp. 233–234]. This position is expressed by the governors of Finmark Fjellstedt and Sommerfeldt. However, the author ignored the subjective nature of the sources and considered these judgments as an objective,

credible fact. Moreover, he extrapolated them to explain the local interactions with Russia in 18th — early 19th century [4, pp. 221–225, 233–235].

The reconstruction of the socio-economic and political space of districts made by O.A Johnson is based on the 18th century governors' reports and P. Schnitler's Protocol. The scholar concluded that in economic terms, two West districts — Nademski and Petrecki were fully integrated into East Finmark [4, pp. 214–215, 228–230]. Johnson O.A. was sure that the economic factor had been decisive in considering these districts Norwegian, when delimitating the territory [4, p. 257]. This interpretation of social and economic processes could be also found in modern Norwegian historiography: A. Lund, S. Vikan, and A. Andresen [11; 12; 13; 14]. At the same time, it should be noted that O.A. Johnson, working on the reconstruction of the history of the Borderlands, was not able to correlate Norwegian sources with their Russian counterparts. Therefore, we assume that its interpretation has significant distortions of the real historical situation.

In the chronological approach to the stage of differentiation, the researcher mentions the problems of Russia from territorial delimitation in the late XVIII and early XIX centuries but does not try to explain their reasons [4, pp. 235–236]. The main factor of territorial land surveying, Johnson believes personal factor and change in the geopolitical picture of the Northern European at the end of the Napoleonic wars.

Strategic partnership of Russia with Sweden 1812 with the strong friendship of the Russian Emperor Alexander I with the crown Prince, later king Karl Johan, those two components that, as I thought scientist were the main reasons for the consent of the Emperor with the Swedish proposals for the delimitation of districts, despite resistance from Arkhangelsk Governor S. I. Minitage [4, p. 236–239, 258]. These findings are reflected in the works of A. Lunde, S. Wikan, A. Andresen, E. Niemi, J.P. Nielsen and M. Lähteenmäki [11; 12; 13; 9; 15, 10; 16]. Identical conclusions were made by the Russian researchers V. Roginsky, B. B. Cristman and A. S. Casian [17; 18; 19; 20].

Diplomatic history of the Russian-Norwegian demarcation 1823-1826 was partly studied in the monograph of the Swedish researcher C.F. Palmstierna, dedicated to the premises of the November Act of 1855. The historian tried to trace the influence of the delimitation of common districts on the foreign policy tension in the 1850s. and to determine the impact of a large policy on the negotiation. Although the author did not find any facts confirming the influence of big politics on diplomatic negotiations or the delimitation effect, he first introduced a wide range of diplomatic sources. First, these were the documents of the Swedish — Norwegian Foreign Ministry and a part of the documents of the Ministry of Foreign Affairs of the Russian Empire [21, Palmstierna C.F.].

Palmstierna C.F. believed that the reason for the delimitation was the conflicts between the Sami and Norway's aspirations to establish a border [21, Palmstierna C.F., pp. 223–226]. Analyzing the correspondence of the Swedish envoys with the Ministry of Foreign Affairs of the Kingdom, the researcher reconstructs the process of diplomatic negotiations.

Focusing on the central historical figures, he significantly reduced the influence of regional and local actors on the negotiations, limiting it to the Arkhangelsk — St. Petersburg, on the one hand, and Christiania — Stockholm, on the other hand [21, Palmstierna C.F., pp. 223–235]. According to Palmstierna C.F., the main opponent of the delimitation of the border and the initiator of the resistance is the governor of Arkhangelsk, S.I. Minitzky, who, in his reports and personal conversation with the head of the Russian Foreign K.V. Nesselrode, insisted on the old border and systematically rejected projects of delimitation of the Norwegian side [21, Palmstierna C.F., pp. 226–228, 230–231].

In contrast to the opinion of Russian historiographers, Palmstierna C.F. believed that the position of the Russian central authorities with respect to the Norwegian proposals of 1823 and 1824, was not homogeneous and benevolent [21, pp. 223–227]. After analyzing the dispatches of the Swedish envoys, Palmstierna C.F. concluded that the head of the Russian Foreign K.V. Nesselrode supported S.I. Ministry's initiatives [21, pp. 226–227]. The foreign policy of Alexander I and Nicholas I, aimed at maintaining good-neighborliness with the Kingdom, as well as the diplomatic professionalism of the Swedish — Norway envoys, who skillfully defended the interests of the Kingdom with no regard to the Russian counterarguments [21, p. 235]. The historian emphasized that it was the Swedish diplomat N.F. Palmstierna defended the Norwegian demarcation projects when the king's position was unstable at critical moments of the summer 1824 and the spring 1825–26 [21, pp. 227–233]. In the spring 1826, Karl Johan intended to accept the delimitation plan, proposed by Nicholas I. The plan significantly reduced the boundary line of the Galiamin-Spork project. The hesitation of Alexander I and Nicholas I was explained by the skeptical attitude of emperors towards the value of the disputed space and the arrest of Lieutenant-Colonel V.E. Galiamin. In December 1825 — January 1826, he was under investigation on charges for participation in the December insurrection 1825.

Writing about the contradictions of center and regions of the Russian Empire in the decision-making process, C. F. Palmstierna did not analyze and did not compare the views of Stockholm and Christiania. The idea of a consolidated position of the Kingdom in defending the interests of the inhabitants of Northern Norway had been formed. This view is in many ways contrary to the classical dichotomy of the center — periphery and, in addition, it is not confirmed by a detailed comparison of the delimitation projects of the Norwegian and Swedish sides.

We should also mention the issue of exchange of territories that arose in the 1840s. Palmstierna C.F. believed that the reason for the Russian proposals to exchange the so-called “Finnish ledge” (Finskekilen) on Norwegian land in Southern Varanger was the attempt of the Emperor to pacify the Finnish Parliament, demanding access to sea fisheries for the Finnish Sami [21, p. 277]. Russian researchers M. Borodkin and V.V. Pokhlebin believed that this proposal was caused by Nicholas I's revanchism and his awareness of the injustice of the border Convention against Russian Sami [22, pp. 313–314; 23]. Arkhangelsk historian B.B. Cristman's results are even more sophisticated. His hypothesis is that this proposal was the result of prudent foreign policy manoeu-

vre of the Emperor, who intended to expand borders in 1841 by conciliating Sweden in 1826 [19, Cristman B.B., pp. 59–60, pp. 98–99]. Sources that prove these assumptions were not listed by the Russian researchers. Palmstierna's C. F. interpretation remains generally accepted in the Scandinavian historiography of the Russian-Norwegian diplomatic history of the delineation according to A. Lund, S. Wikan, A. Andresen, E. Niemi, L. Ryvarden, M. Lähteenmäki [11; 12; 13; 14; 9; 24; 16].

The subsequent synthesis of the borderland history with constructivist approach was made by a Professor from the University of Tromsø Einar Niemi. Using secondary sources, the researcher described the evolution of the frontier in the context of the national security policy with the help of the dichotomy "center — periphery" [9]. Attaching a classical scheme, the author concluded that, at the local level, the attitude to Russia was characterized by good-neighborliness and but by xenophobia in the center (Christiania and Stockholm).

Niemi E., on the one hand, related the Finmark authorities' aspirations to the border issue with the increased economic interests of Norwegian citizens and desire to colonize the South Varanger, where the common districts are. On the other hand, the scholar linked the delimitation with the Swedish — Norwegian Central authorities and the doctrine of the Russian threat. Contradiction of differentiation factors in the center and periphery of Sweden — Norway, according to Professor E. Niemi, explains the contradictory nature of the fishing rules for the border population of Norway and Russia, established by the articles of the Convention 1826 [9, pp. 69–71].

Studying the consolidation of the Norwegian state in the border region in the second half of the 19th — early 20th centuries, E. Niemi concluded that the concept of the Russian threat in combination with the ideology of building a nation-state pushed the excessive politicization of the Sami crafts. They had become associated with part of a Russian expansionist plan. This fear seemed to be confirmed for Norwegian officials, by the fact of domination immigrant non-Norwegian ethnic element (Finns, Finnish and Russian Sami) in the ethno-cultural landscape of the Norwegian frontier. This largely predetermined the actions of the regional and Central authorities of the Kingdom, active policy of Norway and the colonization of the Southern Varanger in the second half of the XIX century. This policy implied a wide range of measures aimed at assimilation of the Sami population, isolation of the Finnish immigrant majority and reduction of external migration flows [25, Eriksen K.E., Niemi E., pp. 28–95]. According to the scholar, further attempts to restrict Pomor and Sami crafts in the early 20th century were the Norwegian reaction to the revisionist sentiments of the Russian public, who wanted to revise the Convention of 1826 [25, pp. 104–105]. It is important to note, building this concept, E. Niemi focused on documents about the dispute with Finnish Sami. In his monograph "The Finnish Threat", he considered the politicization of Russian Sami fisheries of the mid-19th century insufficiently. This omission was noticed by A. Andresen, who analyzed Norwegian documents and wrote that the politicization of Russian Sami fisheries in the Norwegian press and the administration of the Borderlands were significantly politicized in relation to the Finnish Sami fisheries [13, pp. 70–73]. The author argued that, the politici-

zation of the Russian Sami fisheries was significantly different from an identical process in relation to the Finnish Sami [14, pp. 210–211; 13, pp. 73–75, pp. 83–84].

E. Niemi considers the shaping the cultural borders of Norway through the construction of Church facilities in the border area one of the elements of the Norwegian border policy in the second half of the 19th — early 20th centuries. The researcher also believed that the use of cultural and religious space to ensure security and prevent territorial expansion was caused by the influence of Russia, which “traditionally” used objects of religious cult to expand its political limits [26, pp. 153-155].

Researchers J.P. Nielsen and T. Christiansen continued to develop the theme of the Russian threat in the history of the Russian-Norwegian borderland. Professor J.P. Nielsen concluded that the Russian threat was not related to the real Russian policy towards Norway. This doctrine was only an asymmetric perception of Russian politics in Norwegian interpretation, i.e. the myth, the system of belief that Norway needs to accelerate its own consolidation. At the same time, this myth proved to be suitable for Sweden and the UK and their political interests [27, Nielsen J.P., pp. 75–94; 15, pp. 13–14]. The most important J.P. Nielsen’s contribution to the development of the borderland history is the assumption about the possible reason for the long removal of Russia from the border issue — the different views of the elites of both countries about their own territory. An essential characteristic of these differences is the liberal attitude of the Russian authorities to open frontier zones, unacceptable for a small nation-state, which aspired to get clear and hermetically sealed boundaries [28, Nielsen J.P., pp.241–246; 15, pp. 10–13].

Professor T. Christiansen reviewed the reports of Professor Erickson (1772), the governors Feldstedt (1776) and Sommerfield (1789) and journals of the naval expeditions of the Norwegian fleet (1816-1818). The researcher concluded that the Russian threat as a belief system was widespread not only among the elite of the United States, but also among the population of Eastern Finmark [8]. The researcher insists that this myth was considered not just an ideological construct of the elites, but a product of the daily experience in trade relations between the border population of Norway and Russia. It is the growth of the Russian commercial expansion in the second half of the 18th century. According to T. Christiansen, this pushed Norwegian officials to consolidate in the North [8, pp. 29, 36–37]. Unlike the O.A. Jonsen, the modern researcher stressed that the commercial expansion of the Pomors was a spontaneous uncontrolled process not related to the policy of the Russian authorities [8, p. 44].

Sami people in the history of the Russian-Norwegian borderland

It is necessary to admit the writings devoted to the local space on the border and its indigenous population. This theme was developed in the framework of Scandinavian historiography. The main issues were the legal status of the siits of the Skolt Sami people, the nature of the state policy towards the indigenous population, the impact of the border convention and the Russian-Norwegian relations on the Sami transboundary fisheries.

Regarding the legal status of the siits, the historian of law S. Tonnesen, the anthropologist W. Tanner, the historians A. Andresen and S. Wikan agree that the Skolt Sami collectives considered the borderlands and their resources as their private property [6; 29; 14; 12]. In this context, S. Tonnesen and A. Andresen compared the policies of Norway and Russia towards Skolt Sami collectives. They concluded that Russia recognized the mono-legal right of Skolt Sami to the resources of the siits, while Norway aspired territorial expansion without integrating the traditional rights of the Sami into the Norwegian legal system [29, pp. 114–122; 14, pp. 28–31]. This, stressed A. Andresen, was the main distinguishing feature of the territorial policies of Norway and Russia, which influenced the delimitation process [14, pp. 49–50]. The authors believed that Russia recognized the territory of the pogosts as private property of Skolt Sami. Without any documentary evidence, A. Andresen suggested that this could be based on Russia's legal practice, which included the traditional norms of the peoples of the empire in the legal dimension of the state [14, p. 41]. Such reflections look speculative. Nevertheless, the author's conclusion about the significance of territorial — legal practice of Russia and Norway in relation to the Skolt Sami and their political self-identification is obvious in our view.

The most important consequence of the delimitation, according to A. Andresen, was the deformation of the Nyavdem and Pazrets pogosts [13, pp. 44–45, pp. 165–169]. The negative result of the delimitation for Skolt Sami, according to the author, was the consequence of Alexander I's unsuccessful attempt, to balance between the interests of the Pomors and the indigenous population of the borderland and to maintain friendship with Karl Johan [13, pp. 32–33, p. 44]. At the same time, the author noted that in the long historical perspective, the Sami did not feel the restrictive measures of the convention. After studying the trade conflicts of the 1850-90s and comparing them with the concept of E. Niemi, the researcher identified a link with the current security policy. The fear of a possible Russian expansion made the central and regional authorities tolerant in relation to the Russian Sami trades [13, pp. 60–87].

The modern Norwegian historiography has some uncertainty when assessing the nature of the administrative jurisdiction of Norway and Russia over the disputed area. The identical documents of the 18th century trade disputes made the researchers A. Andresen and S. Wikan come to the opposite conclusions. A. Andresen argued that the siits were under double jurisdiction, while the Finnish historian S. Wikan believed that the jurisdiction over the siits was exclusively Russian, and Norway only tried to expand its judicial jurisdiction with the aim of strengthening their territorial claims in the region [14; 12, p. 39].

The main drawback of the research on local space has become an excessive interest in the analysis of the central state in the process of territorialization of the border area. The indigenous population in the works of W. Tanner, A. Andresen, and S. Wikan looks like a historical object and a victim of state policy. Focusing on the analysis of socio-economic effects of the convention, scholars left outside the scope of research questions about the influence of the Sami on the territorialization of the border space and the formation of spatial images. We believe that the answers

could qualitatively improve the existing interpretations of the territorial policies of Norway and Russia in the border area.

In this context, an interesting article was written by the Japanese-British historian Maria Ishizuki. Its emphasis is on analyzing the roles of various actors in the Russian-Norwegian and Finnish-Norwegian negotiations 1825–1852. [30, Ishizuka M.]. The researcher noted that the regional actors occupied a central place in the design of the border images and the formulation of policies [30, pp. 95–96], which is at variance with the generally accepted in historiography descending model of the relationship between the center and the region.

Conclusion

Summarizing the review of the foreign scientific literature on the history of the Northern Frontier, we can note that in the Norwegian historiography the “region — state” dichotomy in the perception of the border area and the indigenous population is leveled. The extrapolation of the classical “center — periphery” scheme looks synthetic against the backdrop of the apparent contradiction of facts, pointed out by T. Christiansen. In the context of reconstruction of the social and economic system of siits of the Skolt Sami, both Scandinavian and Russian historiographies are dominated by the one-sidedness of sources and spatial fragmentation. Both works of S. Wikan and A. Andresen are devoted to the two of the three siits in the disputed areas. The system of their relations with Norway and Russia was analyzed with the use of the Norwegian sources. This significantly reduces the historical reliability of the reconstructions made by the authors and strengthens the need for a qualitative reconstruction of the Northern Frontier history with the analyze of sources from the archives of all countries, involved in the formation of political and socio-cultural borders in the Far North of Europe (Norway, Sweden, Denmark, Finland and Russia).

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ETHNIC DIVERSITY OF THE RUSSIAN ARCTIC

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Rights of the indigenous peoples of the Russian Arctic: problems and solutions*

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Abstract. The article reveals the situation of the indigenous small-numbered peoples of the North of the Russian Federation; it draws attention to the unresolved issues of the collective rights of the indigenous peoples, legal aspects of their ethnicity, public health, and reindeer husbandry, industrial development of the territories, education and language. The author has noted activities of the Russian Association of Indigenous Peoples of the North, Siberia and the Far East. In conclusion, the author states that despite the existing shortcomings because of the self-sufficient public-state and ethnic policy, in the Russian Arctic, there is an ongoing system of ensuring rights of indigenous small-numbered peoples, their traditional way of life and economic activities.

Keywords: *indigenous small-numbered people, the Arctic natives, traditional way of life, traditional economics, Russian legislation, Russian Association of the Indigenous Small-numbered Peoples of the North, Siberia and Far East.*

Introduction

The reason for this article was the recent publication of Maxim Zadorin and Oleg Minchuk in the “Arctic and North” journal no. 29 [1], where the authors analyze, in detail, constructively, from the standpoint of jurisprudence, the variety of acute problems of small peoples of the North, Siberia and the Far East of the Russian Federation. It is the ethnic groups with a number less than 50 thousand people. Their total number is 247 thousand people; they represent 42 ethnic groups [2, Tishkov V.A., Novikova N.I., Pivneva E.A.; 3, Garipov Sh.; 4, Gorbunov S.N., Zadorin M.Yu.]. 502 thousand of 2 million people are living in the Arctic zone of the Russian Federation (Russian Arctic)¹; representatives of the indigenous small numbered peoples are 82.5 thousand people². They live in the seven subjects of the AZRF in extreme climatic conditions and identify themselves as distinct ethnic communities. They are characterized by a traditional, incl. nomadic, way of life and traditional economy, which is regulated in whole or in part by their own customs and special legislation.

Speaking on March 30, 2017 in Arkhangelsk at the IV International Arctic forum “Arctic - Territory of Dialogue”, President of Russia V.V. Putin said: “Our goal is to ensure sustainable de-

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¹ Lukin Yu.F. *Arkticheskaia entsiklopediia: naselenie Arktiki*. [The Arctic encyclopedia: the population of the Arctic] URL: http://narfu.ru/aan/Encyclopedia_Arctic/Encyclopedia_Population.pdf (Accessed: 27 February 2017). [In Russian]

² Tishkov V.A., Novikova N.I., Pivneva E.A., Stepanov V.V. *Korennyye narody rossiiskoi Arktiki: istoriia, sovremennyi status, perspektivy*. [The indigenous people of the Russian Arctic: history, status and perspectives]. URL: <http://docplayer.ru/26670607-Korennyye-narody-rossiyskoy-arktiki-istoriya-sovremennyy-status-perspektivy-1.html> (Accessed: 14 March 2018). [In Russian]

velopment of the Arctic, and this is the creation of modern infrastructure, development of resources, development of industrial base, improving the quality of life of the indigenous peoples of the North, preserving their culture, their traditions, and careful attitude of the state to them”³.

Russian legislation on the indigenous people's rights

The current legislation and the Constitution of the Russian Federation, in accordance with generally recognized principles and norms of international law and international treaties of the Russian Federation, guarantee special rights of the indigenous small-numbered peoples and support for traditional way of life and economic activities. Indigenous small-numbered peoples are not the only indigenous peoples of Russia, but their low number and the vulnerability of the traditional way of life in terms of urban and industrial development require special attention of the state. Therefore, the federal bodies of state power, the authorities of the subjects of the Russian Federation, local self-government bodies, and public organizations of the indigenous small-numbered peoples of the North, Siberia and the Far East of the Russian Federation pay special attention to the problems of indigenous small-numbered peoples. Appropriate measures are taken to improve conditions of their socio-economic and national-cultural development.

The legislation of the Russian Federation is aimed at preserving the distinctive traditional way of life that these people have on, the one hand, and ensuring their sustainable development, on the other.

Among the main vectors for the implementation of the state policy with respect to indigenous peoples of the North, key areas are:

- preservation of the traditional way of life, support and promotion of the diversity of culture and traditional knowledge of the indigenous small-numbered peoples of the North;
- improving the access to educational services for indigenous small-numbered peoples, considering the use of the native language in the educational process;
- modernization of the health and medical system in the traditional areas of the indigenous small-numbered peoples of the North;
- promotion of employment of the indigenous small-numbered peoples of the North, development of their traditional economic activities;
- development of civil society institutions among the indigenous small-numbered peoples of the North, various forms of self-government.

In the Russian Federation, the collective rights of the indigenous minorities of the North, Siberia and the Far East of the Russian Federation are primarily associated with the protection of the original habitat and the traditional way of life, based on the historical experience of their ancestors in the field of nature management, the original social organization of residence, and preservation of customs and beliefs.

³ Vystuplenie Prezidenta Rossiiskoi Federatsii Vladimira Putina na plenarnom zasedanii IV Mezhdunarodnogo arkticheskogo foruma “Arktika — territoria dialoga” 30 marta 2017 g. v Arkhangel'ske. [The speech of President of Russia V.V. Putin at the IV International Arctic forum “Arctic — Territory of Dialogue”, March 30, 2017 in Arkhangelsk] URL: <https://www.arctic.gov.ru/FilePreview/6bf7cc0d-2c6d-e711-80d2-00155d006312?nodeId=4370391e-a84c-e511-825f-10604b797c23> (Accessed: 11 January 2018). [In Russian]

The legal basis for guaranteeing the guarantees of indigenous minorities in preserving the traditional way of life, in addition to the Constitution of the Russian Federation, is the following federal laws: the Federal Law “On Guarantees of the Rights of Indigenous Peoples of the Russian Federation”⁴, Federal law “On general principles of organization of communities of indigenous peoples of the North, Siberia and the Far East of the Russian Federation”⁵, Federal law “On territories of traditional nature use of indigenous peoples of the North, Siberia and the Far East of the Russian Federation”⁶, as well as the Concept of sustainable development of indigenous small-numbered peoples of the North, Siberia and the Far East of the Russian Federation⁷.

It is important to note that there is a layer of regional laws and regulations, which, at the level of the subject of the Russian Federation, allow detailing what is not explained in the Federal acts.

Among the main types of traditional economic activities of indigenous minorities, the activities of persons living in the Arctic region are:

- animal husbandry, including nomadic (reindeer herding);
- traditional fisheries, including marine animal hunt;
- commercial hunting;
- gathering (harvesting, primary processing of food forest resources, collection of medicinal plants) [5, Zhuravel V. P., p. 130].

Protecting the rights and traditional lifestyle of the indigenous peoples of the Russian Arctic

At the same time, many problems have accumulated in support of indigenous peoples' representatives living in the Arctic territories of Russia, and they need to be addressed soon. There is an urgent need for the development of new regulations and amendments to existing legislation in the field of ensuring the rights of indigenous peoples to conduct traditional nature use and traditional way of life.

Definition of the national identity of small indigenous peoples. This issue is currently the most acute. According to the participants of the meeting of the Presidium of the Expert Council on

⁴ Federalnyi zakon ot 30.04.1999 № 82-FZ “O garantiakh prav korennykh malochislennykh narodov Rossiiskoi Federatsii” (red. ot 13.07.2015). [Federal law of 30.04.1999, No. 82-FZ “On guarantees of rights of small indigenous peoples of the Russian Federation” (as amended on 13.07.2015)]. URL: <http://docs.cntd.ru/document/901732262/> (Accessed: 12 January 2018). [In Russian]

⁵ Federalnyi zakon ot 20 iulia 2000 g. № 104-FZ “Ob obshchikh printsipakh organizatsii obshchin korennykh malochislennykh narodov Severa, Sibiri i Dalnego Vostoka Rossiiskoi Federatsii”. [Federal law No. 104-FZ of 20 July 2000 “On general principles of organization of communities of indigenous peoples of the North, Siberia and the Far East of the Russian Federation”]. URL: <http://base.garant.ru/182356> (Accessed: 12 January 2018). [In Russian]

⁶ Federalnyi zakon ot 07.05.2001 № 49-FZ “O territoriiakh traditsionnogo prirodopolzovaniia korennykh malochislennykh narodov Severa, Sibiri i Dalnego Vostoka Rossiiskoi Federatsii” (red. ot 31.12.2014). [Federal law No. 49-FZ of 07.05.2001 “On territories of traditional nature use of indigenous peoples of the North, Siberia and the Far East of the Russian Federation” (as amended on 31.12.2014)]. URL: <http://docs.cntd.ru/document/901786770/> (Accessed: 06 July 2017). [In Russian]

⁷ Ob utverzhdenii Kontseptsii ustoichivogo razvitiia korennykh malochislennykh narodov Severa, Sibiri i Dalne-go Vostoka Rossiiskoi Federatsii. Pravitelstvo Rossiiskoi Federatsii. Rasporyazhenie ot 4 fevralia 2009 goda № 132-r. [On approval of the concept of sustainable development of indigenous peoples of the North, Siberia and the Far East of the Russian Federation. Russian Federation government. Order No. 132-R of 4 February 2009]. URL: <http://docs.cntd.ru/document/902142304> (Accessed: 06 July 2017). [In Russian]

the Arctic and Antarctic under the Chairman of the Council of Federation of the Federal Assembly of the Russian Federation held on 26 February 2014, in order "to make the most of the rights and privileges guaranteed by the indigenous peoples of the North, Siberia and the Far East, it is necessary to document their national identity to them. The current law, such a procedure is not installed. This seriously hinders the realization of specific rights guaranteed to indigenous peoples in the traditional use of natural resources and the maintenance of traditional lifestyles" [6, Ivanov G.V.]. This was discussed at the VIII Congress of the Association of indigenous peoples of the North, Siberia and Far East of RF (RAIPON) in Salekhard in March 2017 After the change of the passport system and the abolition of the article on the mandatory indication of origin there is no document that reaffirmed the status of indigenous peoples in the state and their special rights. The introduction of the register of indigenous minorities, the criteria by which citizens can acquire the status of indigenous minorities, has been debated for several years. According to the RAIPON President and the State Duma Deputy G.P. Ledkov, as well as his colleagues in the Association A.V. Permyakov and V.S. Istomin, it is necessary to unify the terminology used in normative legal acts to regulate relations with the participation of indigenous peoples [7].

Health issue. In the field of health care, with all the positive results, as shown by the results of numerous studies of the research Institute of Arctic medicine of the Northern state medical University (Arkhangelsk), in areas inhabited by indigenous minorities there are not enough doctors and medical personnel, the number of hospital and outpatient clinics, first-aid stations, women's and children's consultations are decreasing. A significant part of the premises of medical institutions need major repairs, equipment by modern medical equipment. Transport accessibility of qualified medical assistance is difficult for small Arctic settlements [8, Gorbatova L.N., Degteva G.N., Zubov L.A.], the maternal mortality rate is high, and the life expectancy of people is much lower than the national average. In this regard, it is necessary to radically change approaches to medical care, improve the training of medical personnel and working conditions in the places of residence of the indigenous minorities of the North, multiply the number of equipped mobile outpatient clinics, as well as medical and obstetric stations.

One of the major social problems of "aboriginal" is the extremely high level of mortalities due to alcoholism, infectious and oncological diseases and suicides. The high level of consumption of alcoholic beverages in the Northern regions of Russia is significantly aggravated by the specifics of the structure and forms of consumption: prevalence of strong alcoholic beverages, "shock doses", low quality of alcoholic beverages, a significant amount of falsifications, insufficient nutrition, etc. Under the influence of these circumstances and because of the extremely adverse socio-economic conditions, especially characteristic of the Northern regions, and biological features of Northern ethnic groups, the consequences of excessive alcohol consumption for aboriginal peoples be more severe, and the intensity of their manifestation is higher [9, Melnikov A.V.]. According to N.G. Khairullina, the statistics given cannot be an objective indicator of the prevalence of drunkenness and alcoholism, since the bulk of those suffering from this disease is not recorded by

any services. Meanwhile, based on the number of alcoholics and drug addicts officially registered and under dispensary supervision, it can be concluded that the spread of alcoholism continues [10, Khairullina N.G.]. This problem is sometimes in the media and public opinion is increased or decreased, based on the situation or party preferences. Ministry of Health of Russia and regional authorities are trying to solve this problem, reduce its malevolence.

The urgent problems of reindeer husbandry. Currently, the main problems of reindeer husbandry are the depletion of the forage base of reindeer pastures in the tundra natural zone; the increase of the reindeer herding over the permissible reindeer grazing capacity; the intensive growth of the number of domestic deer, both in private and collective farms; the negative impact of the industrial development of the region on the reduction of reindeer pastures (seizure of land near main pipelines, unauthorized industrial landfills, roads, lands that have fallen into the center of industrial and infrastructure objects of domestic deer); the lease of pastures to large reindeer herding enterprises for a long period of time, which, given the limited fodder resources, leads to disruption of pasture rotation; lack of pastures leads to domestic and legal disputes between reindeer herders.

In these conditions, it is important for the state to understand as much as possible all the problems of reindeer husbandry, to distribute suitable reindeer pastures between reindeer herders of private households and reindeer herding enterprises in strict dependence on reindeer herding and the number of reindeer herders employed in the industry, to monitor the use of reindeer pastures, to develop taiga reindeer husbandry through state support of the aboriginal population, especially in the construction of fences. It should be noted that several constituent entities of the Russian Federation improve its own regional legal framework in relation to the rights of the "natives", including on the issues of deer production. The most advanced and appropriate, from the point of view of sustainable development of the indigenous population, is the activities carried out by the authorities and host entities in the Yamal-Nenets Autonomous Okrug, Nenets Autonomous Okrug, the Republic of Sakha (Yakutia).

Reindeer husbandry today represents the way of life, the form of self-organization, the sphere of preservation of languages, and the field of entrepreneurship. According to the beliefs of the Nenets people, the deer always belongs to a specific person, but pastures, without which its contents and the reproduction is impossible, is the area of collective rights.

Difficult issues of interaction with industrial enterprises. It should be noted that, in places of traditional residence and traditional economic activity of small indigenous peoples, the territory is being actively developed industrially, which will displace small indigenous peoples from their ancestral lands, restrict, and sometimes make it impossible to implement the usual and traditional way of life [8, Gorbatova L.N., Degteva G.N., Zubov L.A.; 11, Kolomiets O.P.; 12, Kryazhkov V.A.; 13, Nikitina E.E.; 14; 15, Potravny I.M., Melnikova D.M., Popova I.M.; 16, Smorchkova V.I.]. Deputy Chairman of the State Duma of the Federal Assembly of the Russian Federation in December 2017, during the seminar-meeting of the Committee on nationalities Affairs, Epifanova O.N., noted that

indigenous peoples have a special mission. "It is these peoples — she said—that today are the last barrier to resource — producing companies that ruthlessly exploit nature. These peoples are a reminder of the relationship between human beings and the environment"⁸. Her position is supported by the scientist A. Zenkina, who notes that "industrial development of land in most cases leads to the impossibility of their subsequent use both for the residence of indigenous small peoples and for their traditional way of life" [17, Zenkina A.B., p. 15]. All these issues are often the cause of conflict and litigation.

Under these conditions, federal and regional authorities and public organizations need to constantly monitor the situation of indigenous peoples of the North in the areas of industrial development based on several certain indicators and make timely decisions to improve the situation for the better.

Prior to commencing economic and other activities in places of traditional residence and traditional economic activities of the indigenous small-numbered peoples of the North, Siberia and the Far East of the Russian Federation, industrial companies must necessarily assess the direct or indirect damage to the original habitat and the traditional way of life of indigenous small numbers of people and to perform the calculation of compensation for damages resulting from such activities. At the same time, according to the participants of the round table in the State Duma, "Legislative Provision of Rights of Indigenous Peoples of the North, Siberia and the Far East of the Russian Federation in the Field of Land Relations and Admission to Renewable Natural Resources" held on April 28 2017, it is necessary to apply the "Methodology for calculating the amount of losses caused to associations of indigenous small-numbered peoples of the North, Siberia and the Far East of the Russian Federation as a result of economic and other activities of organizations of all forms of ownership and individuals in places of traditional residence and traditional economic activities of indigenous small peoples of the Russian Federation ", approved by Order No. 565 of the Ministry of Regional Development of the Russian Federation of 09.12.2009. It is also important to conclude treaties on observance of business conditions and compensation payments with organizations of indigenous peoples of the North, Siberia and the Far East of the Russian Federation and persons belonging to indigenous small-numbered peoples⁹.

It is important for authorities and governments to actively involve industrial corporations as a source of financial investments in the socio-economic development of the traditional abode and economic activities of the northern aborigines, directing efforts to revive small settlements and creating conditions for the self-organization of indigenous small-numbered peoples of the North, their plans and programs to promote the development of indigenous peoples.

⁸ Epifanova napomnila ob osoboi missii korennykh malochislennykh narodov Rossii. [Epifanova recalled the special mission of the indigenous peoples of Russia] URL: <https://www.pnp.ru/politics/epifanova-napomnila-ob-osoboy-missii-korennykh-malochislennykh-narodov-rossii.html> (Accessed: 16 January 2018). [In Russian]

⁹ See: Tishchenko M. Sovety mestnykh: dobychu resursov v Rossii predlagaiut soglasovyyat s korennyimi narodami. [Local tips: the extraction of resources in Russia are offered to negotiate with indigenous peoples]. Russia Today website 12 February 2017 r. URL: <https://russian.rt.com> (Accessed: 17 March 2017). [In Russian]

Oil and gas companies Sakhalin Energy Investment Company, PJSC Novatek, PJSC Gazprom, and PJSC Lukoil in their activities demonstrate their attention to the culture and traditions of indigenous peoples, their national professional holidays, motivation of young people to receive a profession. They are characterized by a timely transfer of taxes, the solution of accumulated issues in the social sphere, the emergence of small settlements, a timely response to conflicts of interest. During their activity, they organize the fight against fires, pollution of forests and tundra with industrial waste, try not to allow destruction by heavy equipment of tundra and taiga landscapes.

Within the framework of the Plan for Assistance to Industrial Companies, grants and micro-loans are allocated for the purchase of machinery, transportation, and the arrangement of processing facilities. The allocated funds are also spent for the purchase of autonomous power installations, information and communication technologies, electrical appliances that can be used for their commercial activities. So, in 2017 Sakhalin Energy Investment Company Ltd. supported the project on participation of masters from representatives of indigenous peoples in the European Exhibition of National Crafts in Budapest, where the master classes of Sakhalin masters were very popular on the production of fish skin, birch bark, traditional needlework.

One of the main components of discrimination against indigenous peoples is the stereotyped view that they represent an obstacle to development or that their economic activities do not contribute to the economies of the countries where they live. Economic models of indigenous peoples are often perceived as wasteful in terms of resources. These preconceptions are based on a system of concepts that have been and are being used to justify land seizure and economic marginalization.

There is a need to inventory the List of places of traditional residence and traditional economic activities of indigenous small peoples of the Russian Federation¹⁰ in accordance with the native environment of the indigenous minorities, including inter-population areas.

We agree with the doctor of historical Sciences, the employee of the Institute of Ethnology and anthropology of the Russian Academy of Sciences N. And. Novikova, who emphasizes that in this issue "public policy should be based on active cooperation with indigenous peoples, control over how corporations fulfill their social and environmental obligations. The policy of industrial companies in the North of Russia in recent years has also been gradually changing, comes the realization that they are not pioneers of the Northern and Arctic territories, that their activities should be included not only in the legal field in the first place environmental, but also to meet moral standards" [18, Novikova N. And ... p. 135].

¹⁰ Rasporiazhenie Pravitelstva RF ot 08.05.2009 № 631-r "Ob utverzhdenii perechnia mest traditsionnogo prozhivaniia i traditsionnoi khoziaistvennoi deiatelnosti korennykh malochislennykh narodov Rossiiskoi Federatsii i perechnia vidov traditsionnoi khoziaistvennoi deiatelnosti korennykh malochislennykh narodov Rossiiskoi Federatsii" (red. ot 01.03.2017). [Order of the Government of the Russian Federation No. 631-R of 08.05.2009 "On approval of the list of places of traditional residence and traditional economic activities of indigenous small-numbered peoples of the Russian Federation and the list of traditional economic activities of indigenous small peoples of the Russian Federation" (ed. of 01.03.2017)]. URL: <http://docs.cntd.ru/document/902156317> (Accessed: 17 October 2017).

As the analysis shows, historically traditional nature management was complex, did not require special permits and was not subjected to strict regulation [19, Minchenko N.V. p. 21]. Acting as the natural resources legislation, though it contains General provisions on the traditional use of natural resources to indigenous peoples, however, require special permits, licensing (including regulation), and in relation to each of the types of natural resources. We should support the provisions (given in the literature) on the simplification of licensing procedure of traditional nature use or its total cancellation [20, Sokolova I.B., p. 46].

Difficult questions of education and preservation of aboriginal language. Even though according to the 2010 all-Russian census, 98% of the representatives of the indigenous minorities of the Russian Federation over the age of 15 are covered by the system of General education, 40% of them have a corresponding secondary vocational education, and 12% higher education. At the same time, in our opinion, it should be recognized that the quality, the level of this education at such high quantitative indicators, wants to be the best.

The problem of education of indigenous peoples, its positive and problematic issues are recently at the center of the study of several researchers [21, Malysheva E.V., Nabok I.L.; 22, Terekhina A.N.; 23, Egorov V.N.; 24, Malinovskaya S.M.; 25, Neustroev N.D., Neustroeva A.N.; 26, Frumak I.V.], bodies of Executive and legislative power. Non-scientists (N. Neustroev and A. Neustroeva) the need to improve the education and upbringing of indigenous minorities is justified by the fact that some of the population is characterized by " the loss of ethnic and cultural identity, the erosion of ethnic consciousness, which gave rise to marginal moods and various forms of deviant behavior (from vagrancy and alcoholism, reluctance to work to suicide and crime) [25, Neustroev N.D., Neustroeva A.N.].

Summarizing the authors ' opinions, assessments and proposals on the problem of education, it should be noted that they draw attention to the need to develop special educational standards, special programs that take into account the inclusive nature of education of the indigenous peoples of the Arctic [21, Malysheva E.V., Nabok I.L.], study and dissemination of best practices in the work and functioning of small nomadic and communal garden schools, training of teachers of the native language, support of special education; 23, Egorov V.N.; 26, Frumak I.V.]. The importance of ethno-cultural education of small indigenous peoples, preservation and transfer of their traditions, culture and customs from generation to generation [26, Frumak I.V.], development of skills necessary for conducting traditional economic activity is emphasized.

The authorities carry out activities aimed at the introduction of information technologies in the educational process, including distance learning. The teaching staff is aimed at systematic work on the preparation of students for study in high school in urban conditions.

According to scientists from the Russian state pedagogical University A.I. Herzen (Saint Petersburg), "one of the Central problems of the Arctic indigenous population formation is connected with the solution of the main dilemma: either education is oriented to the traditional occupations of peoples and prepares young people for traditional productive activities (reindeer breed-

ing, hunting, fishing, various crafts); it is focused primarily on obtaining modern professions, on adaptation to modern postindustrial civilization" [21, Malysheva E.V., Nabok I.L., p. 141].

According to the State Duma Deputy G.P. Ledkov, the main cultural value for indigenous peoples is their traditional knowledge, which unites a wide range of proposals on interaction with nature and human place in the natural and social environment, skills of everyday life. Their strong links with the natural environment make it possible to recognize the threats posed by climate warming and other environmental changes. Unfortunately, in the practice of many States, including Russia, this contribution remains invisible. And in public opinion, the collective responsibility of indigenous peoples is often perceived as a manifestation of their conservative and dependent moods, and the importance of their traditional knowledge is not considered.

Tailored to the needs of their traditional way of life more than just indigenous peoples requires the training of teachers of the native language, experts in the field of reindeer breeding (livestock), fisheries (fish processors industry). We need doctors, paramedics, and qualified specialists in the field of ensuring the activities of traditional natural resources, workers, craftsmen and engineers in the oil and gas sector.

In modern conditions of formation of native business its new perspective is highlighted: it acts as a new form of the social organization. The activities of indigenous enterprises are based on family and kinship ties and are oriented towards the traditional use of the natural resources, knowledge and culture of the peoples of the North. In society, their right to original development is not perceived as a cultural asset, as a means of ensuring well-being, resulting in the inevitable multiplicity of conflicts affecting cultural and economic rights and as an obstacle to their becoming full citizens.

It was important to train indigenous lawyers to negotiate with extractive companies and protect aboriginal rights in the courts. This need is caused by the fact that the situation with the protection of the traditional way of life is burdened by the law enforcement practice of the courts. According to the analysis of the decisions made, the courts often deny representatives of small indigenous peoples and their communities the right to establish territories of traditional nature use of Federal significance, restrict communities in the implementation of business activities. The courts sometimes characterize traditional hunting and fishing as poaching; exclude the possibility of traditional fishing and traditional hunting by an authorized person in favor of those who authorized them—communities or family members, relatives. They show inconsistency in the interpretation of tradition, when in some cases require the use of modern fishing gear instead of the use of legal traditional methods of extraction of wildlife, and in others — recognize incompatible with the traditional way of life, the use of technical means. In cases the courts do not rely on international law norms on indigenous peoples, do not consider their customs and traditions [27, Kryazhkov B.A., p. 52].

It should be noted that improving the education of indigenous peoples also addresses the problem of their languages. There is a potential risk of the disappearance of indigenous languages.

Thus, the ATLAS of the world languages of UNESCO, endangered, includes all languages of the indigenous minorities of the North—even, Evenk, Dolgan, Chukchi, Yukaghir (tundra Yukaghir, Kolyma Yukaghir)—the official languages, as well as the Yakut language, which is the official language of the Republic of Sakha (Yakutia) [28, Borisova U.S., p. 102].

The most successful issues of education and culture of indigenous peoples are being addressed by the Executive and legislative bodies of the Yamal-Nenets Autonomous Okrug.

The Position of the Association of Indigenous peoples of the North, Siberia and the Far East of the Russian Federation

Much attention is paid to the development of civil society institutions among indigenous minorities of the North. In recent years, the institution of commissioners (ombudsmen) on the rights of indigenous peoples has been developing in the subjects of the Russian Federation, and Advisory councils of Plenipotentiaries of the Russian Federation in the North-Western, Ural, Siberian and far Eastern Federal districts are actively functioning. Representatives of indigenous peoples' organizations are members of international organizations and have the status of permanent participants and observers in a number of intergovernmental bodies.

An important event in the life of indigenous minorities was the international forum “Indigenous minorities of the North, Siberia and the Far East of the Russian Federation”, which was held in Salekhard on 23–25 March 2017. The VIII Congress of the Association of indigenous minorities of the North, Siberia and the Far East of the Russian Federation was organized, where Gregory Ledkov, a member of the state Duma of the Federal Assembly of the Russian Federation of the sixth and seventh convocations, was unanimously elected President for a second term. Before being elected to the State Duma, he worked as Chairman of the agricultural production cooperative “Tazovsky” in the Taz district of the Yama-lo-Nenets Autonomous district. Now he heads the Subcommittee on legislative support of protection of the rights of indigenous peoples of the North, Siberia and the Far East of the Russian Federation of the State Duma Committee on nationalities, is a member of the presidential Council on interethnic relations, the Presidium Of the state Commission for Arctic development.

Today the RAIPON:

- has special consultative status with the UN Economic and Social Council (ECOSOC), is an active participant in the sessions of the UN working groups on indigenous issues and the draft Declaration on the rights of indigenous peoples, as well as the sessions of the Commission on human rights and the UN Permanent forum on indigenous issues;
- is a Permanent member of the Arctic Council, whose experts are engaged in various working groups and programs;
- has observer status with the governing Council of the United Nations environment Program;
- has observer status with the Committee on intellectual property and genetic resources, traditional knowledge and culture of the world intellectual property organization.

In recent years, the Association has significantly intensified its public activities, increasing its authority and influence within the framework of the Arctic Council, and has adopted a principled position on the protection of the legitimate interests and rights of small indigenous peoples. G. P. Ledkov at the meeting of representatives of authorities of all levels, representatives of scientific and expert community in his speech on “On the representation of indigenous peoples of the North, Siberia and the Far East in the structures of the Federal bodies of state power, bodies of power of subjects of the Russian Federation and bodies of local self-government and their role in the implementation of the state national policy on indigenous peoples” in 2017. It was noted that “in recent years, vital issues of indigenous minorities of the North, Siberia and the Far East of the Russian Federation have been moving at the state level very difficult, legislation on guarantees of rights at the Federal level has tended to deteriorate, new amendments to the legislation aimed at changing the current situation have not been adopted”. At the same time, he noted that the creation in 2015 The Federal Agency for nationalities Affairs and the state Commission for Arctic development have somewhat improved the level of interaction and understanding of problematic issues with the state, but the effectiveness of their activities, in his opinion, does not fully meet the real in this matter.

In the expert community, RAIPON has a list of decisions that must soon be taken at the Federal and regional levels. About them at the scientific conference “Modern Arctic: issues of international cooperation, politics, economy and security” at the RAS Institute of Europe on the 22nd November 2017, said in his speech, the adviser of the President of RAIPON V. Istomin.

Most relevant, in the opinion of the coordinating Council of RAIPON, are the following questions:

- lack of a procedure for determining nationality: it is necessary to document the nationality of indigenous peoples to obtain most of the rights guaranteed, but the current legislation does not provide for such a procedure.;
- problems in traditional fisheries in terms of priority access to fishing grounds, expansion of subjects of traditional economic activities, types and volumes of quotas;
- development of legal mechanisms to ensure the establishment and functioning of indigenous peoples' traditional natural resource management areas;
- the establishment of an effective mechanism for considering the views of indigenous peoples in decisions on the industrial development of territories that are traditional territories. Today, the indigenous peoples in pain most of his excluded from the decision-making processes;
- evaluation of the impact of industrial activities on the primordial habitat and traditional lifestyle of indigenous peoples and the order of the who location of the losses caused because of economic activities of industrial companies;
- increased funding to support indigenous peoples, with the development of a system of public control over cash flows;
- restoration of regular statistical monitoring of the socio-demographic and economic situation of indigenous minorities. This includes monitoring the demographic situation, health, education, employment, income and other aspects of the quality of life of indigenous minorities;

- the realization of the legitimate right of indigenous peoples to early retirement.

Exploring the issue of indigenous peoples, it should be noted that for the Arctic region of Russia is characterized by significant outflow of the population [29, Zaikov, K.S., Tamitskiy A.M., p. 46; 30, Sokolova F.Kh., pp. 154–155; 31, Fauzer V., p. 25], the high degree of depreciation of fixed assets, poor infrastructure. At the same time, regarding the rights of indigenous minorities, there is an insufficiently developed legal and regulatory framework at the regional level [32, Zaikov K., Tamitskiy A., Zadorin M.].

Indigenous small-numbered people of the Yamal-Nenets Autonomous District

The problems of small indigenous peoples in the Arctic regions of the Russian Federation are addressed in different ways, considering their size, established practice and the availability of money. In our opinion, this activity is most successfully organized in the Yamal-Nenets Autonomous district. Yamal is an ancient and amazing land of indigenous peoples of the North-Khants, Nenets, and Selkups. The number of historically local population over the past 10 years has increased by 11% and is 42 thousand people. This is 20% of all indigenous minorities of the North of the Russian Federation. At the same time 14 thousand of tundra residents lead a traditional nomadic way of life, grazing the world's largest herd of reindeer [33, Kobylkin, D.N.]. The main activities are fishing, hunting, gathering and traditional crafts. On the preservation of traditional lifestyles of indigenous peoples of the North and protection of their ancestral habitat on the Yamal Peninsula aimed 14 state programs; the regional legislative base has been formed: there are more than 40 laws, more than 300 subordinate normative legal acts in different directions: the development of affordable and effective medicine, education, housing, support for agro-industrial complex, etc. [20, Sokolova I.B.].

In 2016, the laws “on reindeer husbandry” and “on fisheries” were adopted, a Strategy for the development of the indigenous minorities of the North until 2022 was created, and councils of authorized representatives of the indigenous minorities of the North were created under the heads of municipal entities. All new laws, as well as key industrial projects, in the district pass the procedure of public hearings with the participation of representatives of the tundra population.

The Autonomous region has developed a standard for the minimum material security of persons who have the traditional way of life of the indigenous minorities of the North in the Autonomous region. It includes things necessary for nomads: the plague and equipment for it, stoves, tarps, cloth, fishing nets, medical kits and much more. The travelling population receives a monthly social benefit from the budget of the Autonomous region. For this purpose, more than 330 million rubles are allocated annually. In addition, the applied measures of support for the citizens of the indigenous peoples of the North, related to preferential categories; a program to provide residents of the tundra means of communication: the budget of the Autonomous district purchased satellite phones and packages of communications services. Over the past four years alone, about 730 such kits have been purchased for a total of over 94 million rubles.

State support for reindeer husbandry as one of the most important conditions for the well-being of the indigenous population remains in Yamal. Organizations of agro-industrial complex involved in the field of reindeer husbandry, including the communities of indigenous numerically small peoples of the North, given the measures of state support in the form of subsidy and grants. Over 1.5 billion rubles are allocated for this purpose each year. Representatives of the district in 2017 took part in the VI Congress of reindeer herders in Jokkmokk (Sweden), in which the Deputy Chairman of the Legislative Assembly of the Yamal-Nenets Autonomous district S.N. Haruki was elected President of the Association “World Reindeer Herders”.

Yamal pays special attention to the preservation of the culture of the indigenous peoples of the North. In the national languages of the Northern peoples published books and books, held inter-regional competitions in local lore and native languages among schoolchildren and students. To realize the rights of the indigenous minorities of the North to preserve their cultural identity, the Autonomous Okrug has adopted programs for the development of boarding schools for 2013-2020, considering the social and cultural peculiarities of revealing the talents and abilities of children living with their parents in the tundra. The outcome of the programs will be the transformation of boarding schools into centers of ethno-cultural education covering all areas of traditional residence and traditional economic activities of the indigenous peoples of the North.

The Autonomous district has successfully implemented the Nomadic school regional project aimed at improving the accessibility and quality of education for children from the indigenous minorities of the North. Annually for approximately 180 young people are allocated funds for payment of the first higher education by correspondence in higher education establishments of the country. The district provides additional social benefits to students from low-income families of the indigenous minorities of the North and reimburses living expenses. This assistance is received by about 40–60 people each year.

The management of the Yamal-Nenets Autonomous district in its activities seeks to preserve the original culture of the indigenous peoples of the North and their centuries-old traditions for the next generations of Yamal people.

Conclusion

The indigenous minorities of the North, Siberia and the Far East of the Russian Federation have so far managed to preserve their unique identity, culture, language, crafts and trades, and their commitment to the traditional way of life. The traditional way of life has not changed in centuries.

Unfortunately, not everyone has been able to preserve their traditional way of life, as well as their identity. For example, indigenous minorities such as Kerek and Yuga are extinct ethnic groups in 2018, although the former are still on the official government list as an existing ethnic community.

It should be noted that, in the context of active industrial activity, the habitat of indigenous minorities is adversely affected, which in some cases leads to the complete loss of territories and water areas where traditional economic activities are carried out. Significant areas of reindeer pastures and hunting grounds are being taken away, some of the previously used fishing rivers and reservoirs lose their fisheries importance.

The optimistic scenario for the development of indigenous minorities is found only in such entities as the Yamal-Nenets Autonomous Okrug, the Republic of Sakha (Yakutia) and the Khanty-Mansi Autonomous Okrug. The success is achieved by appropriations through the extraction of energy resources by large companies in these regions.

Despite the existing gaps in the Russian Arctic in the result of self-sufficient public-state ethno-national policy, gradually working system, ensure the observance of the rights of indigenous institutions of the peoples, their traditional lifestyle and economic activities. Legislation alone would not solve the problems of aboriginal people without the adoption of appropriate development programs supported by real funding.

In this regard, it is important to study the experience of solving similar problems in the countries of the Arctic Council, in whose activities the status of "permanent participant"¹¹ along with the Association of indigenous minorities of the North, Siberia and the Far East of the Russian Federation, five other indigenous organizations have been provided: the Inuit Circumpolar conference, the international Aleutians Association, the Sami Council, the Arctic Council of Atabascas and the international Council of Guichen. In addition, there is an international working group on indigenous Affairs, the Arctic circumpolar route, and the world reindeer herders Association. For example, the international working group on indigenous Affairs encourages efforts to encourage indigenous Northern peoples to participate democratically in the work of the responsible bodies of Arctic States. These organizations, representing the indigenous peoples of the Arctic, deal with human rights, environmental protection, the preservation of traditional lifestyles, social and economic development and education, based on the characteristics of the States in which they live. The Arctic Council within the framework of the activities of the working groups implementing the Plan of action to strengthen the community of indigenous people. This experience is reflected in the recently published book "Ethnic-national processes in the Arctic: trends, problems and prospects" at the Northern (Arctic) Federal University named after M.V. Lomonosov [34], which was highly appreciated by experts and practitioners.

It is important to improve law enforcement practices in the area of ensuring the collective rights of small indigenous peoples, to provide them with opportunities for traditional environmental management and the conduct of their usual way of life, to take their interests into account when making managerial decisions on the development of Arctic territories, as well as to develop

¹¹ This status gives the right to participate in the discussion of all issues in the Arctic Council, but does not provide a "vote".

and introduce mechanisms for compensation for damage, to develop international cooperation, which, unfortunately, has been severely limited in recent years.

It is important to step up joint efforts of all branches of the Executive authorities and legislators to address issues that are the ***minimum necessary for the sustainable development of the indigenous minorities of the North, Siberia and the Russian Far East***. They belong to special ethnic groups whose rights and legitimate interests are subject to special protection by the state.

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Methodical issues of the ethnopolitical and ethnosocial processes' empirical researches in the regions of the Russian Arctic*

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Abstract. The article considers the methodic aspects of empirical ethnopolitical and ethno-social research in the regions of the modern Russia. It is demonstrated that the tools for quantitative sociological research of interethnic and interdenominational relations should be adapted for large-scale cultural-historical groups of the regions. E.g., in the case of the Russian Arctic, the indigenous small-numbered peoples are an important subject of the ethnic policy, which requires the use of additional indicators that represent their cultural development and participation in ethnopolitical relations. The toolkit of empirical cross-regional studies usually includes the measurement of individual variables. The article proposes a more complex and systematic methodology based on the idea of constructing integral indices, aggregating the values of a set of related indicators. To analyze the dynamics of the ethnic components of the region's social system, a set of categories is proposed, through which it is possible to describe the configuration of the main ethnic actors and the state of political and cultural institutions. The categories were operationalized for the political, societal and socio-cultural subsystems of the region, resulting in a system of indicators for monitoring ethnopolitical and ethno-social processes. The article shows an example of the procedure for constructing an integral index of the ethnic policy' quality (nationalities policy index) based on indicators proposed by the authors for measuring ethnopolitical processes in the region. In the end of the paper, the major issues for the measuring the data unification got with the use of different methods from qualitatively different sources is set.

Keywords: *ethnopolitical processes, ethno-social processes, integral indices in sociology, ethnocultural diversity, interethnic consolidation, ethnic policy, the Russian Arctic.*

Введение

Issues of ethno-political regulation are traditionally one of the most difficult in any modern state, which is multi-ethnic, and therefore multicultural. Through political and scientific doctrines, comprehensive research [1, K. Zaikov, M. Zadorin, A. Tamitskiy; 2, Zaikov K.S., Zadorin M.Y., Tamitskiy A.M.; 3, Karelin V.A., Zaikov K.S.; 4, Goldin V.I., Zaikov K.S., Tamitskiy A.M.; 5, Goldin V.I., Zaikov K.S., Tamitskiy A.M.; 6, Zaikov, K.S., Tamitskiy A.M.] attempts to elaborate "models" to "automate" the process of making management decisions to maintain the balance of the system. Monitoring is undoubtedly one of the most important tools in this spectrum of ethno-social processes.

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To date, empirical research on socio-political processes in Russian regions has become a standard tool for the scientific support of the authorities in managing public attitudes and social relations, as well as forecasting and preventing the risks of conflict interaction. The geography of research of Russian sociologists stretches from the North Caucasus to the Volga region and Siberia, and themes — from evaluation of inter-ethnic relations to a broader range of issues related to the dynamics of social tension [7, Astvatsaturova M.A.; 8, Bogatova O.A., Kargin A.I.; 9, Poddubko V.V.; 10, Stepanov E.I., Arsentiev V.A., Golovin Yu.A., Kukonkov P.I.].

Regarding the sphere of ethno-political and ethno-social processes (including components reflecting the content of state policy), experts of the Federal Agency for nationalities specially developed methodological tools for monitoring interethnic and interfaith relations, consisting of three modules [11, Khaykin S.R., Berezhkova S.B., p. 98]:

- mass representative surveys in all regions of the Russian Federation based on a unified system of indicators;
- monographic studies in the "regions of risk";
- panel surveys of experts.

This kind of uniform all-Russian system of monitoring was certainly an important step in the coordination of expert efforts for cross-regional comparison of the dynamics of the processes of inter-ethnic interaction. However, according to experts, the set of indicators used needs to be supplemented, including considering contextual parameters reflecting the specifics of different regions [12, Drobizheva L.M.]. This remark corresponds to the realities in which the Russian society develops, namely the significant geographical, demographic, socio-economic and ethno-cultural heterogeneity of the country with trends towards unification of the system of public administration and regional legislation.

Thus, it seems that the unified all-Russian system of monitoring interethnic and interfaith relations needs additional methodological developments that consider the specifics of individual groups of Russian regions as a kind of cultural and historical integrity. Among these groups of regions belong to the subjects of the Russian Federation, which together form the Russian Arctic. The purpose of this article is to propose several methodological solutions and developments to improve the analytical potential of empirical research in the field of interethnic relations.

Theoretical background of the descriptive modeling of the ethnic-political and ethnic-cultural processes on the territories of the RF Arctic Zone

To date, there is a sufficient number of both regional and generalizing studies of social processes in the territories of the Arctic zone of the Russian Federation (further — AZ), which was recorded as inter-ethnic relations, including such components as the levels of ethnic tension and mutual tolerance of the ethnic majority and minorities, old people and immigrants [13, Zmeeva O.V., Razumov I.A.; 14, Zmeeva O.V.; 15, Malachova E.G., Osipova O.V.; 16, Maksimov A.M., Tamitskiy A.M.; 17, Oparin D.A.; 18, Tishkov V.A.; 19, Novikova N., 20, Kharlampieva N. K.].

In the part where these studies touch upon ethno-social and closely related ethno-political problems, it is possible to find both a qualitative description of the situation and quantitative measurements of public attitudes and assessments. However, in the latter case, all these works are related to the use of mainly individual indicators. That is why it seems necessary to address the construction of integrated indices that would aggregate the values of the complex of related variables and thus in a more generalized form would Express the state of certain aspects of the life of the regional community. The use of integral indices is more convenient from the point of view of further analytical procedures during empirical research, as well as conceptual understanding of its results. The unity of the principles of building integrated indices for a group of regions belonging to the same cultural and historical integrity, gives a reliable tool for cross-regional comparisons.

The description of the procedures for the development of indicators and calculation based on their aggregated indicators should be preceded by theoretical reasoning about what is behind the concepts of ethno-political and ethno-social processes and relations formed by the course of these processes. The authors proceed from the idea that these processes should be interpreted as functions of the dynamics of structural changes in the social system of the region. The latter is differentiated into functionally interdependent subsystems allocated based on classical models of structural functionalism T. Parsons: social-reproduction model ("socio-cultural subsystem", note. authors), economic and political [21, Parsons T., pp. 23–32]. Typologically uniform sets of elements of these subsystems, the most significant for their reproduction and functioning, are allocated based on developments of neoinstitutional approach [22, North D.K., Wallis J., Weingast B., pp. 56–63]. Three types of elements deserve attention: resources, actors and institutions.

Fig. 1 presents the descriptive model of the the general structure and connections between elements / subsystems of the social system of the region. The social subsystem is a set of stable associations between individuals (social groups) and the structure of relations between them. The socio-cultural subsystem is represented by the values and normative patterns of behavior, as well as cultural institutions that ensure their reproduction. The political subsystem consists of institutions that provide goal-setting and goal-setting for the social system, as well as its adaptation to changing environmental conditions. Finally, the economic subsystem includes institutionalized practices for the production and distribution of goods and services, as well as mechanisms of control (regulation) of these practices [23, Parsons T., pp. 45–54].

"Resources" means different types of capital in form and origin (and, as a rule, mutually convertible), that is, means, the amount of which determines the chances of winning in the competition for power (in the broad sense) in a sphere of human relations [24, Bourdieu P., pp. 15–17].

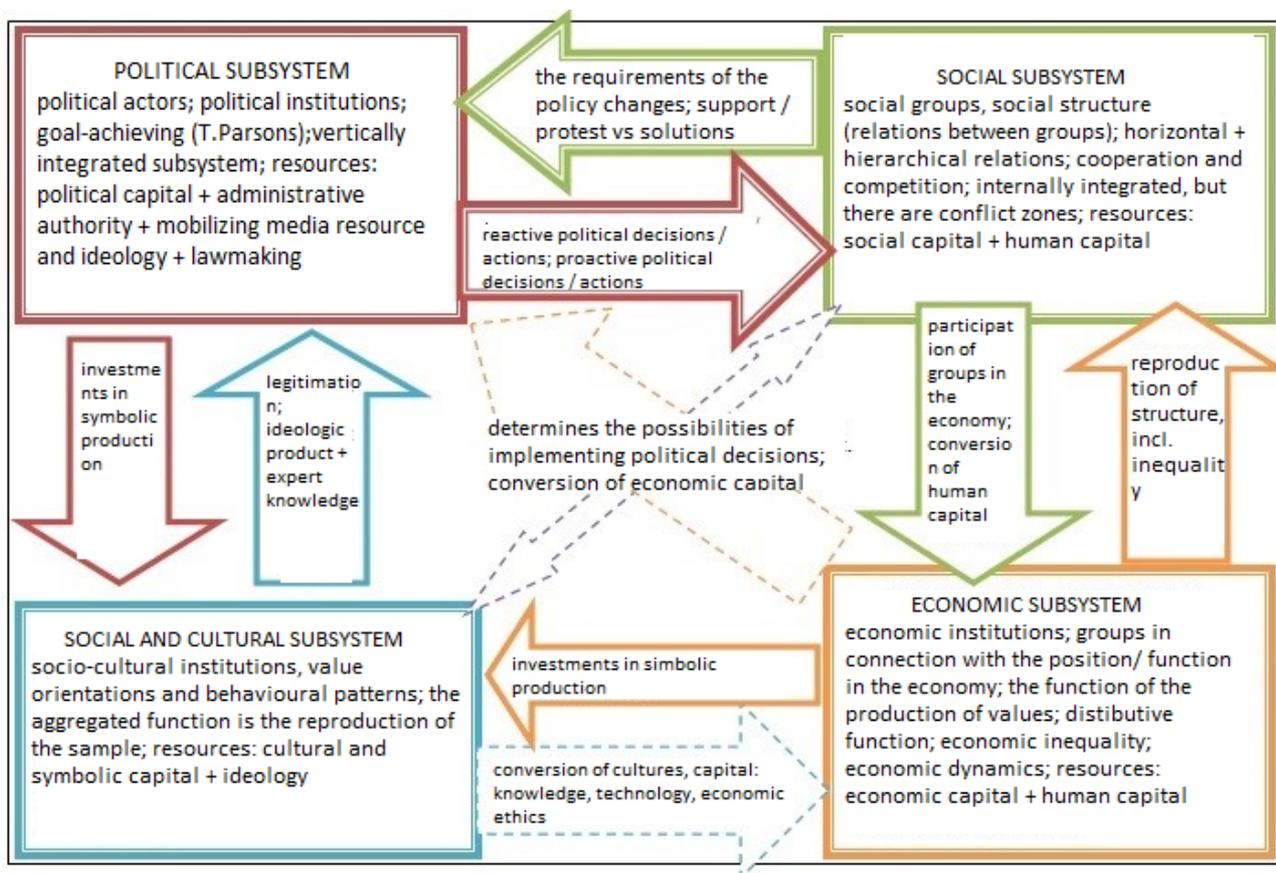


Fig. 1. Block diagram of the descriptive model of the social system of the region

"Institutions" are considered in this case in the generally accepted meaning of the term as standardized procedures of social interactions, ensuring stable and predictable reproduction of the processes of distribution of different types of capital (resources).

"Actors" means individuals, social groups or organizations that can mobilize resources to solve problems of achieving or maintaining dominant positions in a field of specific social relations (economic, cultural production, political in the narrow sense of the word). In other words, the actors carry out purposeful activities, in the process of which they achieve the advantages of control (power) in any subsystem by converting one type of capital into another (for example, the exchange of economic resources, cultural or symbolic capital for political influence).

Despite the importance of the analysis of the economic subsystem of the region in the context of the increase / decrease of ethnic tensions in the multiethnic environment [25, Walter M., pp. 71–74, 132; 26, Mukomel V.I., p. 40], from our point of view, the analysis of the dynamics of interethnic relations, cultural development of ethnic communities and the effectiveness of the state national policy requires only common economic characteristics of the study region or territory. This position is explained by the fact that we could not find in the scientific literature [27, Drobizheva L.M.; 28, Brednikova O., Pachenkov O.; 29, Kuznetsov I., Mukomel V.; 30, Ryazantsev S.V.; 31, Firsov E.Yu.], devoted to the economic situation of the peoples of Russia, empirical studies that would reliably record the correlation between ethnicity (or rather, ethnic identity) and material status. That is, the boundaries within the regional community, which are based on stratification based on inequality in income and ownership, do not coincide with ethnic

boundaries (the division of the population into groups with different ethnic identities). It is reasonable to assume that the General economic conditions prevailing in a region will form a similar structure of economic inequality for all ethnic communities living in the territory of that region¹. Rare exceptions may be associated either with the historically conditioned fact of compact residence of a certain ethnic group in the territory unfavorable for economic activity or being in a state of economic stagnation, or with the preferences of a significant part of the ethnic community to engage in traditional (less productive and profitable) forms of economic management [32, Bugulov M.; 33, Lashov B.V.; 34, Sirina A.], or with a special cultural and everyday way, which we can observe in some groups of Roma.

In connection with the above, we believe that the characteristics of the economic subsystem of the subject of the Russian Federation act as a "background factor", which can significantly affect the overall social tension in the region, but while maintaining the relative constancy of economic characteristics (stable "depression" or, conversely, sustainable economic growth), the dynamics of interethnic relations and ethno-cultural development to a much greater extent depends on the parameters of other subsystems. If, in a region, ethnic entrepreneurship or traditional environmental management play a significant role in the life of the local community, then to date techniques have been developed to measure individual characteristics of these phenomena in connection with the ethno-social situation in the region [35, Sadova A.N., Belozerova M.V.]. In relation to the regions of the Russian Arctic, this situation can be useful in the case of the study of places of traditional residence and traditional economic activities of indigenous peoples of the North, Siberia and the Far East. As for the urban areas of the Russian Arctic, where the bulk of the population of the Arctic regions lives, different ethnic minorities are either part of the old-age population or seasonal migrant workers. The latter are poorly integrated into the life of local communities, and their social interactions with the old-age population, as a rule, are limited to the sphere of labor relations. In this regard, ethnic groups of migrant workers in the Arctic can hardly be reasonably considered as collective actors influencing the main parameters of the social system of the region (even though they, of course, can be a significant indirect factor of inter-ethnic tension). Thus, the issue of methodological aspects of building integrated indices reflecting the state of social, socio-cultural and political subsystems of the Arctic regions will be considered.

Interpretation and operationalization of the main categories of description ethnopolitical and ethno-social processes

In the previous section, an interpretation of the key types of elements ensuring the functioning of each of the subsystems of the social system of the region is given. In this section,

¹ Of course, this is not about labor migrants occupying certain niches in the structure of the regional labor market, since in most cases they are not integrated into the social system of the region. Equally the facts of ethnically tinted branch specialization in the sphere of small and medium business are also taken into account, since the stratum of entrepreneurs from among ethnic minorities in no way represents the socio-economic status of the corresponding ethnic community.

the substantive differences between types of actors, capitals and institutions are specified in the framework of the three subsystems outlined above, and it is also proposed to operationalize the concepts used by introducing several latent variables and their corresponding indicators.

Let's start with the specification of the main categories in the context of the functioning of the political subsystem of the region. We interpret the political actor as a specific person or organization that has the potential to legitimately influence the process of making and implementing meaningful decisions in the public sphere. Among the political actors involved in the adoption and implementation of decisions on the regulation of inter-ethnic relations in the Russian Federation (in other words, directly involved in the implementation of the regional national policy), first, include regional government bodies, local self-government bodies, system officials state and municipal government, advisory and advisory bodies, political parties and socio-political movements. The specific composition and number of actors, the ratio of the volumes of their *political capital* determine the value of the variable, which can be conditionally designated as the level of pluralism of the national policy. At the same time, the size of the *political capital* of each actor (more precisely, its average disposable volume at a certain time interval) is determined, first, by the official status of this actor, by the totality of its official powers, the current level of legitimacy and the opportunities for mobilizing public support. *Political institutions* as normatively fixed, organizationally designed and regularly reproducible ways of managing social processes [36, Abramov A., p. 55] it is proposed to be operationalized by means of two variables - the degree of formalization of the procedures for managing social processes² and the degree of publicity of organizational forms (measures) that mediate the managerial process. The first variable can be recorded through the assessment of the quality of regulatory and legal support for management activities, and the second — through the total number of events for a certain period and the average number of their participants.

Within the societal subsystem of the region, if the subject of research interest is limited only by ethno-social processes, very specific types of actors operate that have a common property - ethnic identity as the basis for constructing a group, but differing in the number, development of social networks, status (as an intersubjective notion of place in the hierarchy, and official in some cases), the representation of interests in power structures and other parameters. The authors propose to distinguish three main types of such actors: a dominant ethnic group, an ethnic minority, an indigenous minority (in the case of the Russian Arctic, the indigenous people).

Dominant ethnos is a concept used as an analogue of the out-of-use term "titular nation". The dominant is understood to be an ethnos that predominates within a region over other ethnic communities in terms of political and cultural capital [37, Tishkov V.A., Shabayev Yu.P., pp. 144–145]. At the same time, the numerical superiority of representatives of one or another ethnic community, of course, does not guarantee either political or cultural domination. Dominant ethnos quite often manifests its political dominance symbolically using the ethnonym as the

² In this case – management of interethnic relations.

official name of the region (country), and cultural - through the appropriation of the national language as a state language (that is, the main or only language of education, record keeping and state mass media).

Following the Additional Protocol on the Rights of Minorities to the European Convention on Human Rights, the ethnic minority is understood by authors to be an ethnically homogeneous group, politically, culturally and, as a rule, not numerically dominant in its territory, self-organizing to protect its linguistic, cultural and religious identity and transfer them to future generations. An *ethnic minority* can be both an autochthonous (indigenous) and an alien population. At the same time, it seeks to preserve the specific characteristics of the group, since they allow maintaining relative autonomy from the state due to a certain cultural isolationism, as well as solving local issues within the community based on common values and interests³.

As an actor, an ethnic minority can be organizationally organized in various ways: through the formation of formal structures for representation of ethnic interests (national-cultural autonomy, association, etc.) or the maintenance of informal networks of social contacts and mutual support (diaspora).

Indigenous peoples in the context of studying the dynamics of ethnopolitical and ethno-social processes in the Russian Arctic, due to the peculiarities of Russian legislation, should be singled out as a special category of actors. The "indigenous minorities" of the North, Siberia and the Far East of the Russian Federation are understood to be peoples living in areas of the North, Siberia and the Far East in the territories of the traditional resettlement of their ancestors, preserving the traditional way of life, management and crafts, numbering less than 50 thousand people and aware self-reliant ethnic communities⁴.

As in the case of ethnic minorities, the indigenous people act like collective actors through various associations - associations and communities.

The main resource used to reproduce the unity of the above actors and ensure solidarity and mutual support within ethnic communities is the so-called social capital. It is a collection of real or potential resources associated with the possession of a stable network of institutionalized relationships of mutual acquaintance and recognition [38, Bourdieu P., p. 247]. In other words, social capital is a category that describes the individual's involvement in various social and communication networks, the possession and use of his social connections. Indicators of the available volume of social capital can serve as a level of social confidence and social distance. In addition, the communicative competence of individuals - the practical skills of mastering a language

³ Recommendation 1201 (1993), Additional protocol on the rights of minorities to the European Convention on Human Rights. URL: <http://www.assembly.coe.int/nw/xml/XRef/Xref-XML2HTML-en.asp?fileid=15235&lang=en> (Accessed: 28 December 2017).

⁴ Federalnyi zakon ot 20 iulia 2000 g. № 104-FZ "Ob obshchikh printsipakh organizatsii obshchin korennykh malochislennykh narodov Severa, Sibiri i Dalnego Vostoka Rossiiskoi Federatsii". [Federal law No. 104-FZ of 20 July 2000 "On general principles of organization of communities of indigenous peoples of the North, Siberia and the Far East of the Russian Federation"]. URL: <http://docs.cntd.ru/document/901765288> (Accessed: 28 December 2017). [In Russian]

as a dominant ethnic group, and (if it is a question of an ethnic minority or an indigenous small people) its own ethnic community, is an important factor in increasing the volume of social capital in a multiethnic environment. In the case of fluency in several languages, the network of social contacts is obviously expanding, which, even with a pronounced heterogeneity in the ethnic composition of the population of the region, increases the integration of the societal subsystem and the level of interethnic consolidation. In the case of a mass predominance of the language of its ethnic community with a poor knowledge of the language of the dominant ethnos (including the state language), a certain level of its communicative isolation will be preserved.

Ethnic (non) homogeneity, the level of self-organization of individual ethnic groups, social trust and social distance between the main ethnic groups, the level of language competencies, as well as intersubjective assessments of inter-ethnic tensions, provide a comprehensive description of the ethno-social components of the societal subsystem of the region.

As for the sociocultural subsystem, in terms of the composition of actors, substantial intersections with the societal subsystem are observed within its framework: the same public associations articulating the interests and opinions of certain ethnic communities in the public space act as key actors in the field of cultural activity. Along with them, specialized institutions (educational, cultural, leisure, museum and other organizations) act as actors. The institutional component is represented not only by the legal and regulatory framework of cultural policy, but also by cultural events, including national holidays and religious rituals.

In connection with the latter, it is necessary to single out a special type of actors, which can be designated by the term "confessional commonality". By "confessional commonality" we mean an organized group of believers united by adherence to a special doctrine within a religious tradition. At the same time, ethnic and confessional borders do not always coincide, and within the confessional community there can be a mixed ethnic composition. At the same time, one cannot ignore the role of the activity of confessional associations in the construction, maintenance and mobilization of ethnic identity, which, in the context of the subject matter of the stated research interest, makes the confessional composition of the population of the region meaningful.

In the socio-cultural subsystem, the dominance of certain actors is ensured by the growth of *cultural capital*. According to P. Bourdieu, it exists in three forms: incorporated (the embedded state), objective and institutionalized. In the first case, we are talking about acquired "long dispositions of mind and body", peculiar cultural habits, signaling the features of the early stage of socialization of individuals. In a specific cultural context, these features are interpreted as a sign of the status of the family in which the socialization of the individual, as they indicate the quality, "correctness" of education. *An objective form of capital* is a combination of cultural goods (books, works of art, access to services of cultural institutions) possessed by an individual. Their volume and qualitative composition demonstrate not only the degree of readiness of a person to convert economic benefits into cultural, but also the availability of skills of prestigious cultural consumption. Finally, in its institutionalized form, cultural capital is represented by official

documents on academic qualifications (certificates fixing the level of education, availability of academic degrees and academic titles, etc.) [38, Bourdieu P., pp. 243–247].

Regarding inter-ethnic relations, the uneven distribution of cultural capital reflects the real inequality in the opportunities of representatives of different ethnic communities to master the norms of dominant culture, acquire the skills of prestigious cultural consumption (and the General tendency to such consumption), education and professional competencies. These constraints themselves are not currently institutionalized. However, the ethno-cultural specificity of the traditions of upbringing, different attitudes of different peoples to the value of education and career, differences in language competencies in conditions where prestigious education requires knowledge of non — native language—all this creates prerequisites for the preservation of the tendency to uneven distribution of cultural capital between individual ethnic groups. In these circumstances, interest is the analysis of the activities of the intellectuals from among ethnic minorities and activists of ethno-cultural organizations in the redefinition of the status of non-dominant ethnic cultures — activities that Bourdieu describes in the categories of the struggle for symbolic domination [24, Bourdieu P., pp. 78–81]. Such activities may result in an increase in the number of educational establishments teaching languages of certain ethnic minorities (e.g. indigenous peoples) or in teaching in these languages alongside with the state language.; increased support from regional and local cultural institutions for the preservation of national cultural traditions; the emergence of mass media, including those financed from the budget, in the languages of major ethnic groups living in a particular subject of the Russian Federation. All the above can be used as indicators of the state of the ethnic component of the socio-cultural subsystem of the region.

Summing up this section, it is logical to present the operationalization of the main categories of analysis of ethno-political and ethno-social processes in the regions of the Russian Arctic in the form of a summary table.

Table 1

Operationalization of categories of analysis of ethno-political and ethno-social processes in the regions of the Russian Arctic

Analysis category	Latent variable	Indicator
Political actor	Pluralism level of the national policy	presence / absence of the relevant executive authorities
		presence / absence of specialized committees in the Legislative Assembly of the RF subject
		presence / absence of core functions of agencies in local administrations
		presence / absence of party organizations, whose programs state ethno-cultural issues
		presence / absence of socio-political movements of ethno-cultural orientation
Political institute	Level of publicity of the national policy	number of public actions of ethnic subjects and the average number of their participants: a) protest, b) pro-government
		presence / absence of advisory and advisory bodies on national policy issues

		share of media materials on ethnopolitical issues
	Formalization level of the national policy	quality of the regulatory framework of the national policy
Political capital	Political capital concentration	the amount of rights and powers fixed in the legislation (for each type of actors)
		the size of staff resources of regional authorities and local authorities
		number of active members of party organizations, whose programs state ethno-cultural problems
		number of active participants in socio-political movements of ethnocultural orientation
Dominant ethnic group	Organization level of the dominant ethnic group ⁵	number of public associations of the dominant ethnic group
		level of representation of the dominant ethnos in legislative bodies and local self-government
Ethnic minority	Organization level of the ethnic minority	number and composition of public associations of ethnic minorities
		level of representation of ethnic minorities in legislative bodies and local self-government
		presence / absence of regional centers of intercultural communication ⁶
Indigenous small-numbered people	Organization level of the indigenous small-numbered people	number and composition of public associations of indigenous small peoples
		level of representation of indigenous peoples in legislative bodies and local self-government
Social capital	Density of social ties	level of interpersonal trust
		social distance
Confession	Organization level of the confessions	number and composition of religious associations in the region
Cultural capital	The level of ethno-confessional diversification in education and culture	presence / absence of schools with teaching in the language of the dominant ethnic group ⁷
		the share of schools teaching ethnic minority language
		the share of schools with the teaching of indigenous languages
		degree of diversity ⁸ of ethnic / confessional holidays celebrated in the region publicly
		degree of diversity of cultural events of ethnic / confessional themes organized jointly with authorities

Methodological issues of the sociological monitoring studies of interethnic relations

The main methodological difficulties that arise when developing tools for monitoring ethnopolitical and ethno-social processes in the region can be divided into two types. The first ones are related to the method of constructing integral indices, the latter - with the search for relevant data sources, methods of their collection and quantitative processing.

⁵ Of interest is the measurement of this variable in such subjects of the federation as republics, where the dominant ethnic groups are represented by non-Russian peoples. This circumstance gives rise to specific differences between the content of cultural policy (including the language policy and state-confessional relations) at the federal and republican levels.

⁶ E.g., clubs of "international friendship", etc.

⁷ In case when the dominant ethnos is not represented by Russians, and therefore, its language is not the national one.

⁸ The value of the indicator is determined by expert assessments. The high value of the indicator will be if all the most numerous ethnic and confessional groups could regularly celebrate their national and religious holidays.

Turning to the problem of constructing integral indices, it is important to note, firstly, the need to solve the problem of determining the boundaries of the domain, which each specific index would be able to characterize. Following the logic of theoretical analysis described above, it is intended to construct a separate index for assessing the state of each of the subsystems of the social system of the region considered in the previous section. Thus, to monitor the dynamics of the ethno-political component of the political subsystem, a nationality policy index (or p-index) can be proposed; ethnic aspects of the functioning of the societal subsystem are proposed to be characterized by an ethnic consolidation index (or c-index); the socio-cultural sphere can be reflected by constructing an index of ethnocultural diversity (ethnic cultural diversity index, or d-index).

Each index for its construction requires an optimal set of variables and corresponding indicators: it should allow the most complete and complex capture of the parameters of each of the three subsystems of the social system of the region that interests us, but do not contain redundant indicators, that is, only the key factors of the studied processes.

The above operationalization of the basic concepts of theoretical analysis basically allows us to identify key variables. However, to achieve a more comprehensive result, additional indicators or modifications of previously proposed ones may be required. So, to calculate the index of interethnic consolidation, in addition to the indicators allocated for measuring the level of organization of various types of actors and the density of social networks, it is certainly necessary to consider the level of heterogeneity of ethno-confessional composition⁹, as well as the level of language competencies of members of a multi-ethnic community reflecting the degree of language assimilation¹⁰. When calculating the index of the quality of the national policy, along with indicators of the level of ethno-confessional diversification in education and the cultural sphere, it is necessary to introduce an indicator of the presence / absence of regional legislation in the field of support of ethno-cultural and confessional diversity, as well as an indicator of the level of reflection in events and phenomena of an ethnocultural nature.

Much greater complexity in comparison with the formation of a system of indicators is the solution of the problem of bringing them to a single measurement system. Ensuring the uniformity of measurement procedures facilitates the calculation of the values of integral indices, since in this case they can be calculated as the sum of the weighted average values of all indicators used. In addition, this will ensure the validity of the toolkit for cross-regional comparisons since qualitative differences in regions can be quantified in a single measurement system. However, the obvious

⁹ The value is calculated as the product of the variation coefficients for the two indicators - ethnic heterogeneity (based on the data of the All-Russian censuses) and confessional heterogeneity (based on the data of representative surveys considering the sampling error).

¹⁰ The ratio of the proportion of those who know the state language or the language of the dominant ethnic group to the proportion of those who speak the language of their ethnic group - ethnic minority or indigenous small-numbered people.

differences sources of primary data¹¹ and the corresponding methods of their collection give rise to certain difficulties in solving this problem.

Let us turn to the consideration of the proposed methodological procedures for calculating the above integral indices.

National Policy Quality Index (p-index). The indicators deliberately did not include those by which the level of concentration of political capital is measured. First, this variable for most actors, except for government bodies and officials, reflects their situational, rather than structural, characteristics. Secondly, in the case of the authorities, the problem of the irreducibility of political capital of the specialized in the sphere of national policies of departments to their staffing and official powers due to their involvement in interdepartmental interaction and supervision by higher officials seems to be intractable.

Table 2

Indicators for the National Policy Quality Index (p-index)

Latent variable	Indicator	Data source	Scale / units
Plurality level of the national politics	presence / absence of profile executive bodies (p1)	inform. resources of government bodies and local self-government; legal documents	index, 2-rank (yes = 1, no = 0)
	presence / absence of profile committees in the legislative assembly of the subject of the Russian Federation (p2)		
	presence / absence of core functions of agencies in local administrations (p3)		
	presence / absence of party organizations, whose programs contain ethno-cultural issues (p4.1-4.4 ¹²)	data of the Ministry of Justice, party programs	index, 2-rank (yes = 1, no = 0)
	assessment of the political role of the ethnocultural social movements (p5)	expert survey	index, 5-rank ¹³
Publicity level of the national politics	number of public actions of ethnic subjects and the average number of their participants: - protests (p6.1), - pro-state (p6.2)	media content analysis	metric (in natural units, during the period T)
	presence / absence of advisory bodies on ethnic policy issues (p7)	inform. resources of government bodies and local self-government; legal documents	index, 2-rank (yes = 1, no = 0)
	share of media materials on ethnopolitical issues (p8)	media content analysis	share in the general array of political media materials (for the period T, in the interval 0; 1)

¹¹ State statistics, media content analysis, mass surveys, expert assessments, etc.

¹² It is proposed to calculate the values separately for parties representing the interests of different ethnic communities: p4.1 - the Russian people (national patriotic), p4.2 - dominant ethnic groups (for the republics), p4.3 - ethnic minorities, p4.4 - indigenous small-numbered people.

¹³ If there are no actors in the region of this type, the indicator is assigned the value "0".

Уровень формализации национальной политики	quality of the regulatory framework of the ethnic policy (p9)	expert survey	index, 5-rank
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The index is calculated using the formula:

$$p\text{-index} = \sum_{i=p1}^{p3} i + \sum_{i=p4.1}^{p4.4} i + k_{p5} * p5/N + \frac{p6.2-p6.1}{p6.1+p6.2} + k_{p7} * p7 + k_{p8} * p8 + k_{p9} * p9/N,$$

where k_{pn} — weighting factors for the respective indicators, N — number of experts interviewed; $\frac{p6.2-p6.1}{p6.1+p6.2}$ — the formula for calculating the vector of socio-political activity¹⁴.

Interethnic consolidation index (c-index). This index integrates the values of variables reflecting the ethnic and confessional heterogeneity of the population, the distribution of social capital within the ethnically structured space of social communication, and the degree of dependence of the general level of social tension on tensions in the sphere of inter-ethnic and inter-confessional relations. In Table 3 presents detailed operationalization of the selected variables.

Table 3
The system of indicators for calculating the integrated index of interethnic consolidation (c-index)

Latent variable	Indicator	Data source	Scale / units
The degree of homogeneity of the population of the area	ethnic composition (c1)	data of state statistics	calculation of the values of indicators is made based on the calculation of the coefficients of variation
	confessional composition (c2)	representative mass surveys	
Uniformity in the distribution of social capital (in the ethnic context)	социальная дистанция между основными этническими группами (c3)	representative mass surveys	The E. Bogardus scale
	level of interpersonal trust (c4)		index, 5-rank
Ethno-cultural component of social tension	attitude of assessing the level of inter-ethnic tensions (c5.1) to the general level of social tension (c5.2)	representative mass surveys / expert survey	index, 5-rank
	the ratio of assessing the level of inter-confessional tensions (c6.1) to the general level of social tension (c5.2)		

The index is calculated using the formula:

$$c\text{-index} = (v_1 c1 * v_2 c2) + k_{c1} * (c3 + c4) - k_{c2} * \left(\frac{c5.1}{c5.2} + \frac{c6.1}{c5.2} \right),$$

where v_1 и v_2 — coefficients of variation, k_{cn} — weighting factors for the respective indicators.

Ethno-cultural diversity index (d-index). This index primarily reflects the degree of institutionalization and public articulation of ethno-cultural differences, the stability of ethnic identities and the rigidity of demarcation of imaginary ethnic boundaries. The most important indicators are the levels of organizational design of actors acting as referents of ethnocultural

¹⁴ In the range from -1 to 1. The higher the value of the indicator, the higher the level of approval of the ethnic policy.

communities in the region. Two ways can be considered to measure these levels. The first of them (most obvious) is the fixation of the number of formal public associations of one or another type of actors representing the dominant ethnic group, ethnic minorities and indigenous small peoples respectively, as well as the number of their members. However, following this path, we face a number of methodological and practical difficulties: first, the above quantitative showed without taking into account the amount of organizational, financial and information resources available to each public association of the type in question, do not fully express the most important parameters of their practical influence on ethno-political processes and the ethno-cultural landscape: they cannot be judged on the real mobilization capabilities of the organization with respect to that ethnic community, the articulation the interests of which this organization claims, nor about its actual popularity among the population, nor about the scale and regularity of its public events, the scale of its statutory activities; secondly, the solution of the problem of accumulation of data on these parameters is limited by the insurmountable barriers connected with the closure of some information (primarily financial possibilities of public associations), its incompleteness in open sources. In the light of these circumstances, we believe that it would be more productive to follow a different path: the identification of real influence on the ethno-cultural situation in the region by certain groups of public associations based on expert assessments. In this regard, we propose to replace indicators of the number of ethnically oriented NGOs and their membership in the indicator of the organizational and mobilization potential of these NGOs, the importance of which would be derived from expert surveys.

Table 4

The system of indicators for calculating the integral index of ethno-cultural diversity (d-index)

Latent variable	Indicator	Data source	Scale / units
Level of the dominant ethnic group organization	organizational and mobilization potential of public associations of the dominant ethnic group (d1)	expert survey	index, 5-rank [0; 5]
	level of representation of the dominant ethnoses in legislative bodies and local self-government (d5)		
The level of ethnic minorities organization	organizational and mobilization potential of public associations of ethnic minorities (d2)		
	level of representation of ethnic minorities in legislative bodies and local self-government (d6)		
The level of the indigenous small-numbered peoples organization	organizational and mobilization potential of public associations of indigenous small-numbered peoples (d3)	expert survey	index, 5-rank [0; 5]
	level of representation of indigenous small-numbered peoples in legislative bodies and local self-government (d7)		

Organizational level of the confessional groups	organizational and mobilization potential of religious associations in the region (d4)		
The level of ethno-confessional diversification in education and culture	Language diversification in the educational sphere ¹⁵ (d8)	data of state bodies of the subject of the Russian Federation in the sphere of education	metric, [0; 1]
	degree of diversity of ethnic / confessional holidays celebrated in the region publicly (d9)	expert survey	index, 5-rank [0; 5]
	degree of diversity of cultural events of ethnic / confessional themes organized jointly with authorities (d10)		
The level of legal support for ethno-confessional diversification	presence of regional legislation in the field of support of ethno-cultural and confessional diversity (d11)	data of reference and legal bases of regional legislation	index, 2-rank (yes = 1, no = 0)
The level of information support for ethno-confessional diversification	share of media materials on ethnocultural and confessional topics (d12)	media content analysis	share in the general array of media materials devoted to cultural life (for the period T, in the interval 0; 1)

The index is calculated by the formula:

$$d\text{-index} = k_{d1} * \sum_{i=d1}^{d4} i/N + k_{d2} * \sum_{i=d5}^{d7} i/N + k_{d3} * d8 + k_{d4} * (d9 + d10)/N + k_{d5} * d11 + k_{d6} * d12,$$

где k_{dn} — weighting factors for the respective indicators, N — number of experts interviewed.

As it is easy to see, the calculation of the values of indicators implies an un-unified procedure, access to different scales and units of measurement. We propose that it is possible, by means of some transformations, to bring the data obtained based on the application of various measuring instruments to a single metric (as shown in the formula); and calculating the weighting factors allows you to adjust the values of individual indicators. At the same time, we are faced with several methodological subtleties of expert surveys, including the use of the hierarchy analysis method to determine the weight coefficients [39, Korobov V.B., Tutygin A.G.]. To date, there is a whole arsenal of methodical techniques that allow increasing the accuracy and reliability of the averaged expert estimates [40, Korobov V.B.], but their discussion is beyond the scope of this article.

In conclusion, we note that the methodology for calculating integral indices for measuring ethnopolitical and ethno-social processes proposed in this article is open for correction considering specific features of the Russian Arctic region. At the same time, the methodological principles underlying our approach allow us to increase both the heuristic potential of quantitative

¹⁵ It is calculated as the sum of the shares in the total number of secondary schools in the region of schools with teaching in the language of the dominant ethnic group, schools teaching ethnic minority languages, schools with the teaching of indigenous languages (in the presence of the latter in the subject of the Russian Federation).

sociological research in the field under consideration and the comparability of data within the framework of cross-regional comparative studies of interethnic and inter-confessional relations.

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On the interaction of indigenous peoples of the North and industrial companies: the case of Yugra*

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Abstract. In this work the author generalized and analyzed the results of a sociological study on problems of social and economic development of the territories of the traditional environmental management (TTEM) of the indigenous ethnic groups of the North (IEGN). The purpose and research problems are consisted in obtaining information on economic and social conditions of territories of traditional environmental management and a condition of the IEGN's crafts. The results of a sociological research show, the main motive for traditional economic activity among the IEGN is preservation of the traditional lifestyle. Most of respondents believe that relationship between of the TTEM owners and subsoil users must be based only on a contractual basis (economic agreements). More than a half of respondents believe that the economic agreements concluded between subsoil users and the TTEM owners can partially compensate their expenses and provide communities. On the other hand, an insignificant part of respondents shows mistrust to this form of the relations, saying that the economic agreement is just a formality. Only an insignificant part of respondents noted that their relations with subsoil users were conflict.

Keywords: *territory of the traditional environmental management, peoples of the North, respondents, poll, subsoil users, relationship, economic agreements, payments.*

Introduction

The territory of traditional nature management (TTP) of the indigenous small-numbered peoples of the North (NSIP), according to the Federal Law of May 7, 2001 [1], is specially protected territories created for the traditional use of nature and traditional way of life by indigenous small peoples of the North, Siberia and Far East of the Russian Federation. Traditional nature use of indigenous peoples is historically developed and provides sustainable nature management of the use of objects of the animal and vegetable world and other natural resources by indigenous small peoples.

Traditional nature management is usually contrasted with the industrial one as an example of a careful attitude to nature.

Preservation of the natural environment and socio-economic development of the indigenous peoples of the North in modern conditions are an important problem for the state and society. Without its decision, the transition of the Khanty-Mansiysk Autonomous Okrug to the rails of sustainable economic development is impossible. One of the priority tasks at the same time is to preserve the status of the territory of the traditional nature management of the indigenous peoples of the North. In the opinion of K.B. Klokova, this is due to four reasons [2]:

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1) traditional nature management is the basis of vital activity of indigenous peoples of the North, necessary for their existence, that is, if traditional nature management is not preserved, indigenous peoples will also disappear;

2) the unique historical experience of ecological culture, which is the richness of not only indigenous peoples, but also of all mankind, is lost;

3) what is especially important for Russia, the preservation of the territory of traditional nature use should be considered as one of the aspects of another urgent problem today: attempts to find an alternative to the Western model of social development;

4) this is one of the basic directions of the global problem of finding ways to sustainable development of mankind.

The problem of interaction between indigenous small-numbered peoples and industrial companies remains acute. Since the early 1990s in the last century various normative acts have been adopted at the level of the constituent entities of the Russian Federation, and then at the federal level, but there is still no federal law (or any other legal act on precise parameters of such interaction) or uniform standards for companies' activities. Organizations of indigenous peoples declare the need to adopt documents that protect the rights of indigenous peoples to traditional nature management, fair compensation and their free, prior and informed consent in connection with planned industrial activities, as the Russian Federation claims at the international level. Field surveys conducted throughout the North show that industrial development not only does not ensure the growth of the level and quality of life of indigenous peoples, but sometimes leads to a worsening of their situation [3, p. 5].

The purpose of isolating TTP (ancestral lands, communities)¹ — preservation of the habitat, as well as legal and socio-economic protection of the indigenous population of the district. The total area of the territories was 12.6 million hectares. The average area of one generic land in the district is 26.6 thousand hectares.

Speaking about the problems of the relationship between the owners of the TTP and the users of the subsoil, we note that this problem was and is one of the most urgent in the industrial development of the northern territories in modern conditions.

As is known, almost all hydrocarbon deposits in the territory of Yugra are mainly located within the territories of traditional nature management (ancestral lands and communities) of indigenous people.

According to V.G. Loginova [4], more than 40% of TTP transferred (in varying degrees) in long-term lease to oil companies. The clash of interests of subsoil users and owners of TTP led and leads to different types of conflicts. Exit from the current situation was the economic agreements between the owners of TTP and economic entities operating the field. In them, in addition to

¹ According to the Decree of the Government of the Khanty-Mansiysk Autonomous Okrug "On Territories of Traditional Nature Management" 10.04.2002, the ancestral lands are referred to the territories of traditional nature use of regional significance, the boundaries of which are approved within the boundaries of the previously formed patrimonial lands and territories of traditional (priority) nature management.

compensations to owners of patrimonial lands and communities, the requirements of local self-government bodies for socio-economic development of the territories of compact residence of the KNU, settlement of settlements are provided. Oil companies are reluctant to conclude agreements with the national communities, since by the organization of the community they stand a step above the individual owner of the patrimony, which it is easier for the subsoil user to negotiate with.

Concerning the issue of economic agreements (contracts) currently concluded between subsoil users and owners of TTPs in the territory of Khanty-Mansiysk Autonomous District - Yugra, N.I. Novikova notes that the problem of contracts remains unresolved, although the district has accumulated a lot of experience in using them. In modern conditions, they are not aimed at sustainable development of indigenous small-numbered peoples of the North. In many areas (in the first place — Surgut), where the largest number of patrimonial lands is located, and mostly oil workers work, the situation is more complicated. The main shortcoming of economic agreements is that they do not provide opportunities for the development of indigenous peoples, and sometimes contribute to the growth of dependent attitudes. At best, they help Aboriginal families survive and preserve their traditional way of life. The problem is also the inadequate state and municipal control over their execution [5].

In modern conditions, the study of the interaction of the indigenous peoples of the North and industrial companies is an important part of the research field of the current situation of these peoples. In his work, N.I. Novikov [6] finds the dominant conflict relations between the indigenous inhabitants of the region and oil producing companies - this is the attitude to the world around. Virtually all issues of socio-cultural anthropology of the aborigines are related to the industrial development of the regions of their resettlement. The industrial development of hydrocarbon raw materials and its consequences are an important part of the constructed social knowledge. Currently, it is increasingly used in the political struggle of indigenous peoples for their rights. N.I. Novikova pays attention to the fact that today this struggle reflects the conflict between traditional and industrial nature management, people's ideas and skills, scientific and utilitarian-commercial knowledge and approaches to the environment and its resources. Legal and everyday conflicts in this area lead to negative consequences: environmental destruction, unemployment, alcoholism, the loss of traditional values and indigenous languages, inadequate development of education and health care, a low standard of living, etc.

In the monograph N.I. Novikova gives examples of different ways of getting out of the situation [7, p. 185]. For example, based on the improvement of legislation and the achievement of free, prior and informed consent of indigenous peoples, on their compensation and fair distribution of profits from the use of natural resources. There is also a different vision of these problems, which is typical for part of the political and business elite - the relocation of Aboriginal people from their lands, the construction of houses in towns and cities, and the payment of compensa-

tion. However, in the latter case, the assessment of the financial costs of such programs is understated, and socio-economic, cultural and psychological consequences are not calculated at all.

As noted by V.G. Loginov, A.V. Melnikov, the development of mining and forestry industries had a negative impact on the traditional economy and livelihoods of indigenous small peoples of the North, in particular:

- socio-economic development of indigenous people;
- Reproduction of renewable resources, which are the material base of traditional management and the basis for the preservation of indigenous peoples;
- Ecological condition of the territory [8, p. 96].

Concerning the issue under consideration, it is important to note that in the regions of the North different forms of interaction between industrial companies and indigenous peoples are offered, primarily legal ones. As practice shows, there are many unsolved problems that lead to an open confrontation. To mitigate the consequences of industrial development and / or to prevent conflicts, the standards, policies and regulations of industrial companies established in the international business community and individual companies, that is, the customary norms of customary business law, on the one hand, and the norms of the ordinary rights and other mechanisms for establishing dialogue, worked out by Aborigines, on the other. Based on the study of these norms, general standards of social and environmental policy of the activities of industrial companies in the regions of residence and traditional economic activities of the small indigenous peoples of the North can be worked out [9, p. 134].

Concerning foreign experience on the issue under consideration, it is worth mentioning the rather successful experience of the USA and Canada in solving socio-economic, ecological and ethno-cultural problems of the indigenous population. The economy of the northern territories of these countries is characterized by ambiguity. On the one hand, there is active development and production of natural resources, on the other hand, a comprehensive state policy is being implemented to support and preserve the culture and life of the indigenous population, as well as traditional nature management. In this regard, the system of socio-economic relations in the last decades undergoes a significant transformation due to the inclusion in its structure of such entities as indigenous corporations, acting because of land use agreements, environmental protection, socio-economic development, etc. In the early 1970s the US Congress passed the Alaska Land Claims Law, which provided for the formation of indigenous corporations to receive compensation for the use of the state by lands of traditional nature use. Such corporations are now independent subjects, not only representing the interests of the local population, but also supporting its economic viability². In the Canadian province of Quebec is a significant economic force in the corporation "Makivik" ("The Makivik Corporation") - ethnic corporation whose investment in-Teresa are presented in areas such as oil and gas, transportation, environmental-valued activities, etc. In 2002

² Jones R.S. Alaska native claims settlement Act of 1971 (Public law 92-203): Report No. 81-127 GOV. June 1, 1981. URL: http://www.alaskool.org/projects/anca/reports/rsjones1981/anca_history71.htm (Accessed: 16 January 2018)

was signed a tripartite agreement on the 25 years of partnership in the field of socio-economic development of the attached in 1999 to the Canadian territory Nunavik - places of compact residence of indigenous Inuit (Eskimos). The signing parties were made by the Government of the Province of Quebec, the regional authorities (The Kativik Regional Government) and the Makivik Corporation. Under this agreement, the main co-investment objects are mining, tourism, transport and social infrastructure, construction of hydroelectric power plants, the protection of nature [10, p. 58].

Next, we turn to the generalization and analysis of the results of a sociological survey conducted in 2016 on the chosen subject of the study.

Sources and methods

The survey was conducted in Surgut, Nizhnevartovsk, Nefteyugansk, Beloyarsky and Kondinsky districts of Khanty-Mansiysk Autonomous Okrug — Ugra — in the territories where there is an active interaction between representatives of indigenous peoples and oil companies.

The main method of research is questioning. Surveys were conducted through a questionnaire survey with a visit directly to the respondents' place of residence. Terms: May — August 2016. The sample size is 375 respondents. The trust probability is 95%. Type of sample: quota with representation by age, nationality and district of residence. The head of research is Khaknazarov S.Kh. An empirical survey in the field was conducted by Dyadyun S.D., Ibraeva R.A., Gavrilchik R.M., and Ganina K.A. The processing of the results in the program for the processing of sociological information "Vortex" was carried out by the research officer of the Department of Social and Economic Development and Monitoring of the Ob-Ugrian Institute of Applied Research and Development N. Tkachuk.

The survey involved 375 respondents, of which representatives of indigenous ethnic groups — 346 people (92.3%), others — 29 (7.7%). Of the respondents, 191 (51.0%) are men, 184 (49.0%) are women (indigenous people). The age of the respondents is from 17 to 60 years and older. The main spheres of activity of the indigenous peoples of the North are the traditional economy (50.7%), the sphere of education and science (7.2%), the sphere of culture (6.1%).

Results and discussion

Because of the conducted research, the actual socio-economic problems of the territories of traditional nature management of the indigenous small-numbered peoples of the North have been identified, it was found out that most respondents (76.5%) are owners of TTP (ancestral lands, communities). 22.9% of respondents noted that they do not have a TTP, but they want to have them.

For most respondents (62.7%), TTP was officially registered, 22.7% of respondents did not do this). Most respondents (42.6%) noted that when registering a TTP they need legal assistance, primarily the North Committees (district) and local administrations should help them.

The main types of traditional economic activity are fisheries (89.7%), gathering of wild plants (78.7%), hunting (70.7%) and reindeer husbandry (43.2%). Of the traditional types of economic activity respondents receive mainly berries (86.1%), fish (82.1%), meat (63.7%) and fur (33.1%).

The main motive for engaging in traditional types of economic activity is the preservation of the way of life for the representatives of the indigenous people (74.1%). However, according to 37.1% of respondents (Table 1), TTPs cannot solve many social and economic problems.

Table 1

*The main motive for traditional business activities
representatives of the indigenous small-numbered peoples*

Variants of answers	Number of respondents	% of respondents
Lifestyle	278	74,1
Getting pleasure	136	36,3
The main source of existence	71	18,9
I could not live in the modern world and chose the way of life of my ancestors	71	18,9
Receiving additional income	60	16,0
Receiving a profit	39	10,4
I could not adapt to the conditions of life and the non-traditional environment	18	4,8
Other	8	2,1
Difficult to answer	9	2,4
Total	375	100,0

The process of development and development of the northern regions relates to the solution of several major problems, with the creation of conditions for the preservation and development of the indigenous small-numbered peoples of the North and the adoption of the necessary measures to create living conditions and raise the living standard of the population (indigenous and new) these areas. According to the polls, the question: "How do you think the mutual relations of industrialists with the owners of patrimonial lands and the communities of the small peoples of the North are being built?" the following answers were received (Table 2):

Table 2

*Distribution of answers to the question: "How, in your opinion, should the
the relationship of subsoil users with the owners of patrimonial lands of the indigenous small-numbered
people? "*

Variants of answer	Number of respondents	% of respondents who answered	% of all respondents*
Based on the conclusion of economic agreements	230	63,7	61,3
On a rental basis, by concluding a lease agreement	96	26,6	25,6
Other	16	4,4	4,3
Difficult to answer	59	12,5	15,7
Total	375		100,0

* The total amount exceeds 100%, because one respondent could give several answers at the same time.

As can be seen from Table 2, a significant majority of respondents (61.3%) expressed the opinion that the relationship between owners of TTPs and subsoil users should be built only on a contractual basis (meaning the conclusion of economic agreements), 25.6% of respondents believe that the relationship should be built on a lease basis, by concluding a lease agreement between the Okrug Administration (or representatives of local administrations), subsoil users and owners of patrimonial lands. In addition, a small number of respondents in the column “Other” answered the following: I do not recognize ancestral lands (communities); I'm against the ancestral lands (communities); do not know; we do not have them; we do not know, it's useless, etc.; 15.7% of the respondents found it difficult to answer this question.

As it was mentioned above, most of oil and gas companies operating in the territory of the Khanty-Mansiysk Autonomous Okrug — Ugra, practice the conclusion of economic agreements (agreements) with the indigenous population on compensation for the use of sites of territories of traditional nature management. Annually, within the framework of economic agreements of indigenous peoples, which are subjects of the right of territories of traditional nature use, more than 500 million rubles are allocated, with about 80% of payments being made in the territory of the Surgut district. Compensation payments, the supply of material and technical means (snowmobiles, building materials, boat motors, overalls, etc.) and the provision of transportation services (helicopter, motor transport) play the main role in the structure of the allocated monetary funds in favor of the indigenous people.

During research, we were tasked to find out the respondents' opinion on whether economic agreements concluded between subsoil users and owners of TTPs can provide communities and compensate their costs. Responding to the relevant question, 50.7% of respondents noted that “Yes, they can”. “No, they cannot”, said 31.7% of respondents (Figure 1). 17.6% of respondents noted that the economic agreement is a mere formality for diverting the eyes.

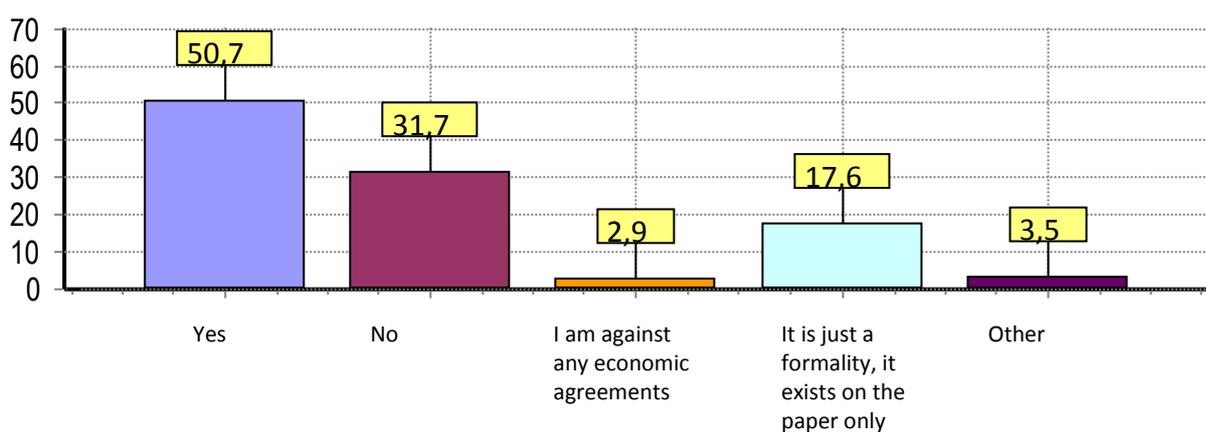


Fig. 1. Distribution of answers to the question: “Do you think that economic agreements concluded between subsoil users and owners of patrimonial lands can provide communities and compensate their costs?”, in % [11, p. 38]

To the question: “*What are your relations with subsoil users?*” (Table 3), most respondents (35.7%) answered that everything happens, 30.7% of the respondents reported that they do not contact the subsoil users at all, 24.3% answered that they cooperate with subsoil users. Only 5.6% of respondents believe that their relationship with subsoil users is conflictual.

Table 3

Distribution of the answers to the question: “What are your relations with subsoil users?”

Variants of answer	Number of respondents	% of respondents who answered	% of all respondents*
Relationships of cooperation	91	25,5	24,3
Conflict relations	21	5,9	5,6
Anything can happen	134	37,5	35,7
Absolutely not touching them	115	32,2	30,7
Difficult to answer	18		4,8
Total	375		100,0

* The total amount exceeds 100%, because one respondent could give several answers at the same time.

For comparison, we note that the results of research conducted by the employees of the Surgut State University (Surgut) and the Institute of Philosophy and Law of the SB RAS (Novosibirsk) show that the relationship between the traditional farm and the oil and gas complex is largely unsettled. This is evidenced by a high degree of socio-psychological tensions in this area, revealed in the sociological survey. Answers to the question: “What relations did you have with oil and gas producers, geologists?”, Assigned to the owners of patrimonial lands, were distributed as follows: 18% of our respondents (owners of the patrimonial lands) characterized these relations mainly as a cooperative relationship, but 22.5% — as mostly conflict; 43.2% of owners of patrimonial grounds believe that in their relations with oil workers there is cooperation and conflict (“everything happens”); 16.2% of respondents did not give an answer to this question, since they did not come into contact with the activity of oil workers [12]. Thus, the share of individuals from the number of land owners who estimate their relations with oil industry workers as conflictual is greater than the proportion of those who evaluate these relations as mainly cooperative relations. And, one way or another, but the presence of conflict is noted by all owners of patrimonial lands in contact with the activities of the oil and gas complex.

To our question: “Have there been any cases in your life when you directly suffered from the activities of subsoil users?” most respondents (64.0%) answered negatively. It is estimated that 27.7% of respondents suffered from the activities of subsoil users (Fig. 2).

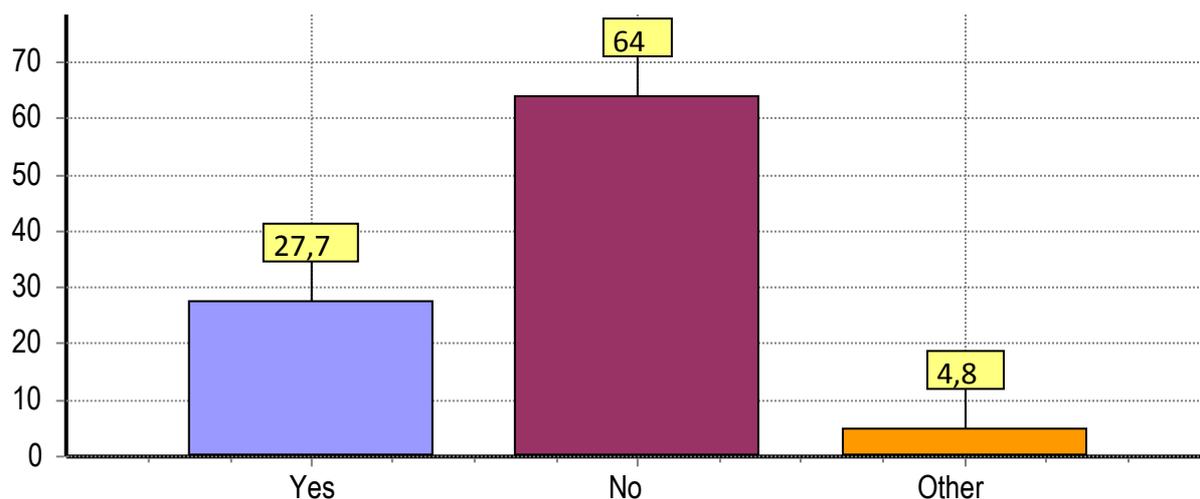


Fig 2. Distribution of answers to the question: "Have there been any cases in your life when you directly suffered from the activities of subsoil users?", in % [11, p. 40]

Answering the question: "If yes, please indicate what it was manifested in?" (Table 4), the respondents reported the following facts: oil spill (10.9%), river overlap (9.1%), fires (1.6%) and industrial landfills (0.5%).

Table 4

Distribution of answers to the question: "If yes, please indicate what it was manifested in?"

Variants of answer	Number of respondents	% of respondents who answered	% of all respondents
Oil spill	41	49,4	10,9
Overlapping of rivers	34	41,0	9,1
Fires	6	7,2	1,6
Industrial landfills	2	2,4	0,5
Difficult to answer	292		77,9
Total	375		100,0

One of the questions concerned the problem of further relations between owners of TTP and subsoil users. Most respondents (59.7%) believe that mutually beneficial cooperation is needed in the future. 20.0% of respondents believe that the activity of subsoil users on TTP should be limited. Only 6.9% of respondents believe that the activities of subsoil users on TTP should be completely stopped (Table 5).

Table 5

Distribution of answers to the question: "What do you think about how your relationships with subsoil users should develop in the future?"

Variants of answer	Number of respondents	% of respondents who answered	% of all respondents*
I consider that mutually advantageous cooperation is necessary	224	62,7	59,7
I think that their activities in the places of TP should be limited	75	21,0	20,0
I believe that their activities in the places of TP must be completely stopped	26	7,3	6,9
Difficult to answer	70	14,6	18,7
Total	375		100,0

* The total amount exceeds 100%, because one respondent could give several answers at the same time.

During the research, it was necessary to determine the position of the indigenous representatives regarding to the recipients of receiving compensation payments under the economic agreements (Table 6).

Table 6

Distribution of answers to the question: "In your opinion, the received compensation payments under economic agreements should be sent to":

Variants of answer	Number of respondents	% of respondents who answered	% of all respondents*
Owners of TTP (ancestral lands, communities)	310	85,2	82,7
To the indigenous inhabitants of nearby settlements	42	11,5	11,2
The indigenous inhabitants of the region	17	4,7	4,5
The indigenous inhabitants of the district	20	5,5	5,3
Difficult to answer	11		2,9
Total	375		100,0

* The total amount exceeds 100%, because one respondent could give several answers at the same time

From the data presented in Table 6, it is evident that most respondents (82.7%) believes that the received compensation payments under economic agreements should be sent to the owners of TTP (ancestral lands, communities). 11.2% of re-sponsors think that payments should be directed to the indigenous residents of nearby settlements. Only a few (4.5% and 5.3% of respondents) agree to share payments with the indigenous residents of the district and the district, respectively.

According to V.N. Belyaev et al. [13], with the improvement of economic agreements with subsoil users, regarding payments for subsoil allocated for solving the problems of socio-economic development of small ethnic groups and ethnic groups, it is not necessary to discuss the individual shares of discussion. Or, as the researcher Yu.V. Popkov states, [14], "through economic agreements, the aborigines satisfy only the survival interests, and one can say, the survival of the individual (family-wise), but not the interests of development, the more expressing the needs of the whole ethnos as a whole". In his opinion, the means and payments under economic agreements should not be distributed to a specific (individual) owner, but to the benefit of the entire indigenous population.

Conclusion

The results of the conducted studies show that the main motive encouraging traditional types of economic activity to be pursued by the representatives of the indigenous people is the preservation of the way of life.

Most respondents believe that the relationship between owners of TTP and subsoil users should be built only on a contractual basis (meaning the conclusion of economic agreements). More than half of respondents noted that economic agreements concluded between subsoil users and owners of TTP can partially compensate their costs and provide communities. On the other hand, a minority of the respondents demonstrate a lack of confidence in this form of relations, considering the economic agreement as an empty formality for diverting their eyes.

Most respondents report that there are disagreements in the relationship between owners of TTPs and subsoil users. However, only a small part of the re-sponsors noted that their relationship with subsoil users is conflicting. Nevertheless, a significant majority of respondents did not experience the negative impact of subsoil users. Only a minority of respondents consider themselves to be affected by their activities. As negative factors, the following is cited as an example: oil spills, fires, industrial dumps and river overlaps.

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REVIEWS AND REPORTS

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A new book on the history of the Murman coast colonization*

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Abstract. The review of the book by P.V. Fedorov and A.A. Malashenkov “Soil on the Northern rocks: Orthodox necropolis of the Murmansk coast of the Barents Sea (1863–1920)”. The study based on the processing of metrical books made it possible to publish the information about 2,524 persons of the Orthodox religion buried on the Murmansk coast, or drowned in the sea in 1863–1920. The Authors found the demographic statistics related to the appearance of the settlements with permanent population. The book clarifies the idea of “cultural soil”, local and family-genealogical structures in the Russian Arctic, and it also contributes to the historical personification of the Murmansk coast.

Keywords: *mortality, metrical books, the Murman coast, the Kola North, the Arctic, colonization, demography, necropolis.*

In 2017 in St. Petersburg a new joint publication of the doctor of historical sciences P.V. Fedorov and historian-bibliographer A.A. Malashenkov “Soil on the Northern Rocks: Orthodox Necropolis of the Murmansk Coast of the Barents Sea (1863–1920)” was published. The new book is of a scientific and reference nature and it is a continuation of the previous large-scale study by these authors on the materials of the ancient town of Kola [1].

The attention of the researchers was devoted to the settling the Murmansk coast, which began in the 1860s and reflected in the metric books of the Orthodox Church. The territorial scope of the study includes the Murmansk coast: from the Norwegian border to Cape St. Nose. The town of Kola and the Sami pogosts were not considered by the authors in the composition of the Murmansk coast because of their cultural disparity in the coastal strip [2, Malashenkov A.A., Fedorov P.V., p. 12].

The chronological framework of the study covers 1863–1920: the most metric books preserved date by this time. In the foreword to the book, a brief historical essay, a review of sources and historiography, the demographic changes that accompanied the colonization of the Murmansk coast are analyzed with the use of statistics revealed by the authors.

The data obtained was summarized in 42 tables. Thus, according to available information, 60 burial places for the Orthodox people are distributed throughout the coast, which casts doubt on the widespread view that the Lutherans (Finns and Norwegians) were quantitatively dominant in Western Murman, in contrast to the Eastern Murman [2, Malashenkov A.A., Fedorov P.V., pp. 19–20; 3, Ushakov I.F., pp. 111–112]. Based on the available data, one can speak of an exaggera-

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tion of the significance of the Norwegian factor in the colonization of the Murmansk coast, as some modern authors from Norway do [2, Malashenkov A.A., Fedorov P.V., pp. 6–7].

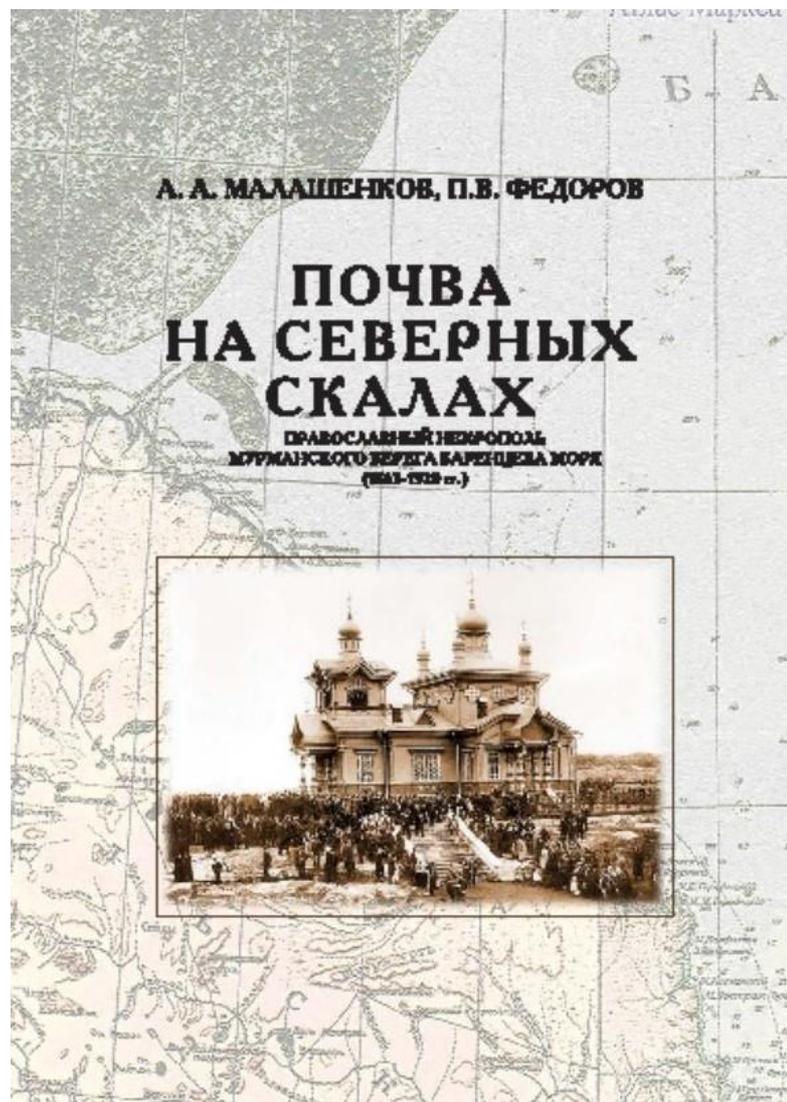


Fig. 1. The cover of the book “Soil on the Northern Rocks: Orthodox Necropolis of the Murmansk Coast of the Barents Sea (1863–1920)”

And if during the First World War, Murman coast was inhabited by the natives of most provinces of the Russian Empire, then until 1914, migration was found mainly in the Kola North and the Arkhangelsk Province. Thus, the seasonal colonization of the Murman, which began with the efforts of Russian fishermen at the dawn of fishing in the 16th century and lasted for three centuries, became a prologue to the settlement during the governmental colonization [2, Malashenkov A.A., Fedorov P.V., p. 22].

The peculiarity of the Murmansk coast was the lower average life expectancy compared to the rest of the country. In addition, the authors noted that men mortality for was twice higher than the women one. Thus, the main population of the Murmansk coast was the coming population, but this imbalance slowly declined by the First World War, which, according to the authors, witnessed the formation of a permanent, quite rural population on Murman.

The authors paid much attention to the study of mortality for various reasons and considered all the cases, indicated in the metric books. The first places in the causes of death were infectious diseases — 38.2%, infants — 20.1%, and drowning — 8.2%. Thus, there were sanitary and hygienic problems on the Murman, burdened with inadequate medical care [2, Malashenkov A.A., Fedorov P.V., p. 24].

The main part of the book is a set of all the dead on the Murmansk coast according to the data of metric books, which includes information on 2,524 persons: anthropometrical data, dates of birth and death, social status, causes of death, place of death registration, and burial place.

The sex-age structure presented in the tables includes only four age groups: 0–3, 4–15, 16–59 and above 60. The use of such intervals does not give full possibility to trace the exact demographic dynamics. Perhaps it was better to use a more fractional structure or, as for women, it was possible to single out a group of women of reproductive age — 15–49 years. To visualize the age and sex structure of the population of Murman, one can use the so-called “age-sex pyramid”, e.g., according to the census 1897.

It is regrettable that the co-authors did not monitor the dynamics of demographic indicators within the annual cycles related to the seasonality of fisheries, as in the previous work [1, Malashenkov A.A., Fedorov P.V., pp. 10–16].

The researchers used the data of metric books on the city of Murmansk for 1916–1920 and put into circulation the names of the town's first inhabitants, founded in 1916. At the same time, the information on Murmansk does not fully cover the mortality rate during this period. The authors acknowledged it and wrote that metric books reflected information about that part of the population “who recognized and observed the Orthodox rites” [2, Malashenkov A.A., Fedorov P.V., p. 16].

After the Whites in Murmansk, several dozen people were buried at the site of the future monument to the Victims of the Revolution [4, Fedorov P.V., Sinitsky A.N., p. 155–156]. Basically, they were depleted prisoners of the Iokanskyaya prison, transported to Murmansk shortly after the establishment of the Soviet power. The authors give only 4 names of the victims, who died during the pro-Bolshevik coup on February 21, 1920 and recorded in metric books [2, Malashenkov A.A., Fedorov P.V., p. 15]. So, there were more victims, of course [5, Gerasimov D.A., p. 164–166]. However, this remark is more likely to characterize the features of the mass source, which the authors of the book addressed to the publication and analysis.

Summing up, I would like to note that the new edition allows to get a qualitative picture of the “cultural soil” of the Murmansk coast in the last third of the 19th century — early 20th century. It not only extracts the statistics that was not available to researchers, but also allows reconstructing local and family structures based on genealogical research and historical personification along the Murmansk coast.

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“Russian Arctic” has completed a series of books on the exploration history of Franz Josef Land and Novaya Zemlya archipelagoes*

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Abstract. The article presents a brief overview of a series of books prepared in 2012–2017 by the Deputy Director of the National Park “Russian Arctic”, Cand. Sci. (Geogr.) Victor Kuznetsov and Honored artist of the Russian Federation Alexey Grigoriev. The series is devoted to the exploration history of the National Park’s area located in the Arkhangelsk Oblast — the Arctic archipelagoes of Novaya Zemlya and Franz Josef Land. The article emphasizes the special importance of the illustrated edition, chosen by the co-authors, which allowed them to achieve a goal: an interesting combination of artistic approach and historical content makes the V.S. Kuznetsov’s books accessible to the public reader. The article provides a summary of all five books of the series: “The history of three “capitals” of the Arctic Archipelago of Franz Josef Land” (2012), “Attraction of the Earth” (2013), “From the balloon to the Polar aviation” (2014), “Secrets of the life in the ice” (2015), “A sea route to the Arctic” (2017).

Keywords: *the Russian Arctic, Franz-Joseph Land, Novaya Zemlya, history, tourism.*

Publishing activity is one of the areas of within the ecological education of the population framework for the National Park “Russian Arctic”. To tell about unique, but remote and hard-to-reach territory of the Novaya Zemlya and Franz Josef Land, to captivate the reader, immerse him in the harsh atmosphere of eternal ice — a few years ago such a task was set by one of the first employees of the National Park, Deputy Director for Environmental Education and Tourism, PhD. in geography, a full member of the Russian Geographical society Victor Kuznetsov.

Victor is familiar with high-latitudes. He has been to different Arctic areas since 1973, while working in the Northern UGMS. In 2011 he came to the “Russian Arctic” and began to accompany cruise tourist flights to the North Pole and the Franz Josef Land. And, according to him, on board the icebreakers are faced with the fact that the organizers of the flight are foreign companies with a lack of a full and deep knowledge of the Arctic development history, the natural features of our national park area.

“It became obvious to me that the interest of visitors to the “Russian Arctic” was growing, but at that time they did not have the opportunity to get acquainted with publications about the land of Franz Josef in their free time, following the modern comfortable icebreaker to the North pole”, — says Victor Kuznetsov.

So, there was the first idea accompanied by the first special publication of archipelago’s guide in Russian and English. The text of the guide was combined with Illustrations, made by a professional artist.

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When creating the guide, the author had a genuine interest in various historical events that took place at different time in the Arctic and on the France-Joseph Land in particular. “On the Islands, the construction of the pioneers and ruins of the first Arctic winters are preserved, we study and show visitors the traces of the expeditions field bases left by enthusiasts who tried to conquer the North. Field work in the group of state inspectors, who accompanied the cruise ships, inspired to write a book on the history of the three “capitals” of the Franz-Joseph Land archipelago”, — says Kuznetsov.

The idea to accompany the text with colorful illustrations was supported by the Honored artist of the Russian Federation Alexey Grigoriev — a person who is passionate about the Arctic, its nature and history. The first book of the creative tandem tells about three meaningful places of Franz Josef Land: the base of the British researcher Frederick Jackson on Cape Flora of the Northbrook Island (1894–1897), the Soviet polar station of the Tikhaya Bay on the Hooker island (1929–1959) and the largest in the entire Russian Arctic scientific Observatory “Druzhnaya” on the Hayes island, opened in 1957.

Why were these three “capitals” chosen? Every chosen settlement has its own peculiarities and characteristics, historic events behind and people. E.g., the Jackson expedition had a lot of scientists. They made the first research in meteorology, terrestrial magnetism, geology, botanic, zoology and hydrobiology on the Islands of the central part of Franz Josef Land. The obtained results made it possible to write a general description of the natural conditions of the archipelago.

The first Soviet polar station in the Arctic, the Tikhaya Bay, became the basis for securing the Franz Josef Land as the territory of the Arkhangelsk Oblast. Here, for the first time, studies of the Arctic atmosphere were made and the instruments for measuring the parameters of its individual layers were tested. Here the study of glaciers began.

And on the Hayes island almost started the space age. There the first meteorological rocket was launched. Methods of rocket sounding of the atmosphere were worked out in the Observatory “Druzhnaya”, as well as the registration of all components of an electromagnetic field of the Earth began. The number of employees of the Observatory sometimes reached 200 people, and there was opened the northernmost kindergarten in the country.

The first book of a series on the “Russian Arctic” was called “The History of the Three “Capitals” of the Arctic Archipelago Franz Josef Land”; it was published in 2012.

That time, the territory of the National Park was only the Northern part of the archipelago of Novaya Zemlya and adjacent small Islands. Franz Josef Land was a reserve of Federal significance and was managed by the National Park. “Therefore, we couldn’t ignore the Novaya Zemlya”, — said Viktor Kuznetsov. — “And decided to continue cooperation with Alexey Semenovich and began work on the book which was called “Attraction of the Earth”.

The publication is a retrospective of the major historical events on the Novaya Zemlya from the Willem Barents’s wintering in the Ice Harbor and until the establishment of the National Park “Russian Arctic” in 2009. The book includes sections devoted to the development of the Novaya

Zemlya by the Pomors and the Russian expeditions 17th — 19th centuries, researchers V.A. Rusanov and G.Ya. Sedov. It also contains a description of the works completed by the employees of the National Park before the publication of the book in December 2013.

“Working on this book in collaboration with Alexei Grigoriev, I’ve realized that decoration requires a special attention. And here is why”, — recalled Viktor Kuznetsov. — “Our publications are aimed at the mass reader, incl. the cruise tourists, and therefore it should not only give objective information about the events, but also vividly, the spirit, and the mood of the participants of these events. Therefore, it was decided to publish the second book of the cycle, and all subsequent ones in the Severodvinsk printing house, whose specialists have extensive professional experience in decorating printed publications. And I am especially grateful to Alexey Semenovich that he was able to visualize all my ideas in his graphics.”

Interesting combination of artistic approach and historical content, marked by the first readers, was decided use in the future publications. More, the idea for next books was hovered in the air. And less than a year later, in October 2014, the Visit center of the National Park hosted the presentation of the next book “From the Balloon to Polar Aviation”. That time the centenary of the first Arctic flights of the Russian pilot Jan Nagursky was celebrated. He made flights on the plane “Farman MF-11” near Novaya Zemlya with an open cockpit. This date inspired Victor Kuznetsov, because he is sure: without polar aviation in high latitudes it is impossible to work! “The development of vast Arctic areas is difficult to imagine without the aircraft. It was understood by pioneers and it is understood by us now. The history of Arctic exploration and aviation history are inextricably linked. In 1914, Yan Nagursky made his first flights in the Arctic near Novaya Zemlya. His task was to find the missing Russian expeditions of Rusanov and Brusilov. Traces of the pilot were not found, but today his name is immortalized in the name of the frontier on the island of Alexandra Land, there is an airfield. The area is now the territory of the Arkhangelsk Oblast, and it is important for us to remember this”, — says Viktor Sergeevich.

The Arctic is an element. In this element, the main place is occupied by ice and wind. The sea surface is covered with drifting ice in constant motion. Glaciers occupy 85% of Franz Josef land and 60% of the North of Novaya Zemlya. Glaciers on the Islands are also in slow motion. They are going down into the sea and give birth to icebergs. An unexpected meeting of the ship with the iceberg threatens. People in the Arctic are constantly faced with ice and glaciers. The main life stories tell about the struggle of a man with the ice and its use are reflected in the next book “Secrets of the life in the ice” (2015).

The book “A Sea Route to the Arctic” concludes a series of five illustrated editions about the “Russian Arctic” created by the creative tandem. The book saw the light at the end of 2017, and it was presented to the public in the framework of the “Days of the Arctic” at the Intelligence Center of the NArFU. The book is devoted to the history of navigation and its role in the development of the Arctic region.

“This topic seems to be particularly interesting for a tourist who is on a modern comfortable ship goes to the Arctic islands only for a few hours, and then returns to the comfortable conditions of the modern world”, — the author reflects. — “Of course, a person is interested in the development of the world navigation, natural and human forces used to move the ship on the water and how the human mind reached the possibility of using nuclear power plants on ships. After all, it is the atomic icebreaker that the tourist gets to the North Pole today”.

The section devoted to the role of Arkhangelsk in the development of the Arctic navigation became the undoubted decoration of the book.

We add that this is the final edition, and all previous ones could be found in the libraries of the town and oblast. Several times these books became finalists and winners of the regional contest “Book of the year”.



Fig. 1. Kuznetsov at the presentation of the book “A Sea Route to the Arctic”.

Photo: Julia Petrova

Flipping through books by Viktor Kuznetsov, one will be amazed by how accurately the author managed to pass on the characters of people who mastered the Arctic spaces and went on a feat for the good of the Fatherland, their incredible courage and fortitude. Indeed, in modern life, we sometimes do not have enough of these romantic impulses and emotions that moved people of past epochs who declared themselves on the Arctic expanses.

Information on illustrated editions of the “Russian Arctic”, prepared in the series:

“The History of the Three “Capitals” of the Arctic Franz Josef Land Archipelago”. Arkhangelsk, 2012. 32 p.: ill. Circulation 500 copies.

Content:

- Cape Flora
- Tikhaya Bay
- Hayes Island

“The Attraction of the Earth”. Arkhangelsk, 2013. 40p.: ill. Circulation 500 copies.

Content:

- Foreword
- Pioneers
- Russian expeditions
- The role of V.A. Rusanov and G.Ya. Sedov in the development of Novaya Zemlya
- Briefly about the Soviet period
- Beginning of work of the national park “Russian Arctic”

“From the Balloon to the Polar Aviation”. Arkhangelsk, 2014. 52 p.: ill. Circulation 500 copies.

Content:

- History of aeronautics and the origin of aviation
- The first attempts to use the balloon to reach the North Pole
- The flights of Jan Nagursky
- Amundsen and its transarctic flights
- Expedition on the airship “Italy”
- Expedition on the airship “Graf Zeppelin”
- The first scientific station on the North Pole
- Polar aviation

“Secrets of the life in ice”. Arkhangelsk, 2015. 60 p.: color. ill. Circulation 500 copies.

Content:

- Mysterious ice
- Ice floe passengers
- Lee Smith: the first building
- Jackson and Nansen: the beginning of amazing meetings
- American expeditions: the foothold of the North Pole conquerors
- The Italian expedition: the first losses in the drifting ice
- V. Albanov: will, endurance and perseverance are the key to success
- George Sedov: the human factor
- Rescue search expeditions: a difficult search path and long-awaited findings

“A Sea Route to the Arctic”. Arkhangelsk, 2017. 48 p.: color. ill. Circulation 500 copies.

Content:

- The beginning of navigation
- Opening of polar regions
- About the role of Arkhangelsk in the development of the Arctic navigation
- Principles of movement
- Science and technology



Fig. 2. Kuznetsov's V. books illustrated by A. Grigoriev.
Photo: Julia Petrova



Fig. 3. Pages of the book "A Sea Route to the Arctic".
Photo: Julia Petrova

SUMMARY

Authors, titles, abstracts, and keywords

ECONOMICS, POLITICAL SCIENCE, SOCIETY AND CULTURE

ПЕТРОВ А.Н., ЗБЕЕД С.О., КАВИН Ф.А. Арктическая экономика знаний: географические аспекты производства новых знаний и технологий в Арктике

PETROV A.N., ZBEED S.O., CAVIN Ph. A. Arctic's knowledge economy: spatial patterns of knowledge and technology production in the Arctic

Аннотация. В центре внимания настоящей статьи — «другие» отрасли экономики, то есть не ресурсные, государственные сектора или традиционные формы хозяйствования в Арктике. Авторы рассматривают географию и возможности производства знаний с точки зрения инновационного процесса и его результатов в циркумполярном и локальном масштабах (на примере Аляски). Иными словами, в этой статье представлен первичный анализ «арктического варианта» экономики знаний. Авторы полагают, что Арктика обладает разнородным потенциалом человеческого капитала, занимающегося созданием новых знаний. Кластеры с высоким потенциалом знаний, как правило, расположены в крупных городах и региональных столицах. Анализ регистрации патентов на Аляске подтверждает эту закономерность, но одновременно представляет сложную и меняющуюся картину локализованных инноваций. Аляска демонстрирует ограниченные, хотя и растущие, разнообразные отрасли, производящие знания, значительную роль отдельных изобретателей и слабую связь с внешними кластерами знаний. Кроме того, очевидно, что производство знаний в Арктике имеет неразвитые циркумполярные связи и поэтому требует неотложных мер для стимулирования научно-исследовательского сотрудничества между частными и государственными исследователями и изобретателями в арктических государствах.

Ключевые слова: экономика знаний, Арктика, патент, инновации, развитие.

Abstract. This paper focuses on 'other,' i.e. non-resource, non-public sector and non-subsistence economies of the Arctic. We investigate the geography and assets of the Arctic's knowledge sector by examining both supply and output side of the knowledge production at the circumpolar and regional scales (using Alaska as a case study). In other words, this paper provides a first-cut analysis of the "Arctic variety" of the knowledge economy. We find that the Arctic has variable endowment with human capital engaged in new knowledge generation. Clusters of high knowledge potential tend to locate in larger cities and regional capitals. An analysis of patent registration in Alaska, confirms this pattern, but also reveals a complicated and evolving picture of localized innovation. Alaska demonstrates limited, albeit growing, variety knowledge-producing sectors, a strong role of individual inventors and a weak connectivity with outside knowledge clusters. It is also evident that knowledge production in the Arctic has underdeveloped circumpolar linkages, and thus requires urgent efforts to stimulate research cooperation between private and public-sector inventors in the Arctic jurisdictions.

Keywords: knowledge economy, Arctic, patent, innovation, development.

СЕВАСТЬЯНОВ Д.В. Рекреационное природопользование и туризм в планах нового освоения Севера России

SEVASTYANOV D.V. Recreational nature management and tourism in the new development plans of the North of Russia

Аннотация. В статье обсуждаются проблемы и перспективы развития рекреационного природопользования и туризма в Арктике в связи с государственной «Стратегией развития Арктической зоны РФ и национальной безопасности на период до 2020 года». Рассмотрены современные тенденции развития круизного туризма,

Abstract. The article is devoted to the problems and prospects for the recreational nature management development in the Arctic in connection with the state "Strategy for the Development of the Arctic Zone of the Russian Federation and National Security for the Period up to 2020". The author considered modern trends in the develop-

экологические проблемы Арктики и задачи рационального встраивания рекреационной и туристской деятельности в новое освоение Арктики и Севера. Результатом исследования является вывод о целесообразности интеграции туристско-рекреационной сферы в комплексный национальный мегапроект социально-экономического развития Арктической зоны РФ.

Ключевые слова: Арктика, природопользование, охрана природных ресурсов, национальные парки, Северный морской путь, круизный туризм.

ТОДОРОВ А.А. Подходы зарубежных стран к правовому регулированию разработки нефтегазовых ресурсов на шельфе Арктики

TODOROV A.A. Approaches of foreign countries to legal regulation of the oil and gas development on the Arctic continental shelf

Аннотация. В работе рассмотрены подходы США, Канады, Гренландии, Норвегии, Исландии к правовому регулированию деятельности компаний по разведке и добыче нефти и газа на шельфе Арктики. На основе анализа законодательных особенностей в каждом государстве выявлены общие характеристики, а также отличия в правовых подходах. Критериями для сравнения послужили проработанность правовой базы, правовая гибкость предписаний, разделение функций по регулированию разработки недр на шельфе и контролю государственных органов. Автор пришёл к выводу, что если в Исландии и Гренландии правовая база в исследуемой сфере находится на стадии разработки и опирается на международные стандарты, то Норвегия, напротив, является примером страны с проработанным законодательством, обеспечивающим ей мировое лидерство в нефтегазовой отрасли. США и Канада имеют разветвлённую систему регулирования деятельности нефтегазовых компаний на шельфе Арктики, которая, однако, характеризуется наличием жёстких стандартов, что способствовало оттоку частных операторов с арктического шельфа.

Ключевые слова: Арктика, добыча нефти и газа, национальное законодательство, арктический шельф.

ment of cruise tourism, environmental problems of the Arctic and the task of embedding recreational and tourist activities in the complex redevelopment of the Arctic and the North. The result of the study is the conclusion about the expediency of integration of the tourist-recreational sphere into the complex project of social and economic development of the Arctic zone of the Russian Federation.

Keywords: the Arctic, nature management, protection of the natural resources, national parks, the Northern Sea Route, cruise tourism.

Abstract. The article studies the legal approaches of the USA, Canada, Greenland, Norway and Iceland towards regulation of the oil and gas drilling on the Arctic shelf. Similarities and differences in the legislation are highlighted based on analyzing the legal provisions of each state. The criteria for the comparative analysis are the extent of legislation development, flexibility of provisions, division of regulative and control functions among the state bodies, etc. The author concludes that while legislation of Iceland and Greenland is only on its way to a final drafting and mainly refers to international standards, Norway, on the contrary, is an example of a state with well-developed legislation enabling it to be one of the leaders in oil and gas industry. Though the USA and Canada have elaborated system of regulation of oil and gas companies' activities on the Arctic shelf. Both are notable for strict provisions, that contributed to the outflow of private operators from the Arctic shelf.

Keywords: the Arctic, oil and gas activity, national legislation, the USA, Canada, Norway, Iceland, Greenland.

HISTORICAL SCIENCES

ЗАЙКОВ К.С. Российско-норвежское пограничье в зарубежной историографии XX — начала XXI вв.

ZAĪKOV K.S. Russian-Norwegian borderland in the foreign historical literature in the 20th — beginning of the 21st centuries

Аннотация. В статье представлен обзор зарубежных исследований по истории российско-

Abstract. The article presents a review of foreign research on the history of Russian-Norwegian bor-

норвежского пограничья периода XVI — начала XX вв. Доминирование эмпирического позитивизма и исторического национализма в описании истории разграничения Северного фронта привело к формированию достаточно устойчивых и односторонних интерпретаций процесса делимитации российско-норвежской границы в работах первой половины XX в. Воспринимая государство как априорно объективное явление, историки и правоведы рассматривали под «границей» статичный инструмент политической власти, игнорируя мультипространственность явления и вариативность его субъектов. В скандинавской историографии сложилась историческая традиция восприятия договора о разграничении «общих округов» 1826 г. как справедливого акта институционализации границ над некогда общим владением. В рамках этой традиции может показаться, что норвежские территориальные притязания не выглядят экспансивными в отношении России. Однако в среде скандинавских историков долгое время доминировала теория о том, что Российская Империя, движимая идеей перманентных территориальных расширений, создавала угрозу норвежскому Финнмарку, поэтому разграничение Северного фронта явилось дипломатической сделкой, направленной на создание легитимных барьеров дальнейшей русской экспансии через норвежское заполярье в Западную Европу. Таким образом, автор приходит к выводу, что в методологической перспективе тема эволюции российско-норвежского пограничья остается недостаточно разработанной в зарубежной историографии и требует пристального внимания для создания качественной реконструкции этапов развития российско-норвежского пограничья от территории с фронтальной конфигурацией политических рубежей в XIII — начале XIX вв. до пространства с герметичными политическими границами в XX в.

Ключевые слова: история, граница, фронт, историография, российско-норвежские отношения, российско-норвежское пограничье, саамы.

derland in 16th — early 20th centuries. The dominance of the empirical positivism and historical nationalism in the history of the Northern frontier delimitation led to the formation of a relatively stable and unilateral interpretations of the Russian-Norwegian border in the first half of the 20th century. The state was perceived as an a priori objective phenomenon. That's why historians and legal scholars understood the "border" as a static instrument of political power, ignoring its multipotential phenomena and variety of its subjects. The Scandinavian historiography has developed a historical tradition of perception of the Treaty 1826 on the delimitation of "common districts" as a fair act of institutionalization of borders over the common possession. As a part of this tradition, it may seem that Norwegian territorial claims did not look expansive in relation to Russia. However, for a long time the Scandinavian historians advocated the theory that the Russian Empire, driven by the idea of permanent territorial extensions, had posed a threat to the Norwegian Finnmark. So, the delineation of the Northern frontier was a diplomatic deal aimed at creating legitimate barriers to further Russian expansion in Western Europe through the Norwegian Arctic. Thus, the author comes to the conclusion that from the methodological perspective, the evolution of the Russian-Norwegian borderlands is still not sufficiently developed in foreign historiography and requires closer attention to create high-quality reconstruction of the Russian-Norwegian borderland evolution from the territory with frontlines configuration of political boundaries in the 13th century — the early 19th century to the space with a sealed political boundary in the 20th century.

Keywords: history, border, frontier, historiography, the Russian-Norwegian relations, the Russian-Norwegian borderland, the Saami.

ETHNIC DIVERSITY OF THE RUSSIAN ARCTIC

ЖУРАВЕЛЬ В.П. Права коренных народов российской Арктики: проблемы и решения

ZHURAVEL V.P. Rights of the indigenous peoples of the Russian Arctic: problems and solutions

Аннотация. В статье раскрывается положение коренных малочисленных народов Севера Российской Федерации, обращается внимание на нерешённые вопросы обеспечения коллективных прав коренных малочисленных народов в зако-

Abstract. The article reveals the situation of the indigenous small-numbered peoples of the North of the Russian Federation; it draws attention to the unresolved issues of the collective rights of the indigenous peoples, legal aspects of their ethnicity,

нодательном порядке определения их национальной принадлежности, области здравоохранения, оленеводства, регулирования процессов промышленного освоения территорий, образования, языка коренных малочисленных народов. Отмечается активность в деятельности Ассоциации коренных малочисленных народов Севера, Сибири и Дальнего Востока РФ. В заключении делается вывод о том, что, несмотря на существующие недоработки в результате самодостаточной общественно-государственной, этнонациональной политики в Российской Арктике, постепенно складывается работающая система, обеспечивающая соблюдение прав коренных малочисленных народов, их традиционного образа жизни и хозяйственной деятельности.

Ключевые слова: *коренные малочисленные народы, арктические аборигены, традиционный образ жизни, виды традиционной хозяйственной деятельности, российское законодательство, Ассоциация коренных малочисленных народов Севера, Сибири и Дальнего Востока РФ.*

МАКСИМОВ А.М., ВЕРЕЩАГИН И.Ф., ЗАДОРИН М.Ю. Методические проблемы эмпирических исследований этнополитических и этносоциальных процессов в регионах российской Арктики

MAKSIMOV A.M., VERESCHAGIN I.F., ZADORIN M.Yu. Methodical issues of the ethnopolitical and ethnosocial processes' empirical researches in the regions of the Russian Arctic

Аннотация. В статье рассматриваются методические аспекты эмпирического изучения этнополитических и этносоциальных процессов в регионах современной России. Продемонстрировано, что инструментарий количественных социологических исследований межнациональных и межконфессиональных отношений следует адаптировать для отдельных крупных культурно-исторических групп регионов. Так, например, в случае с Российской Арктикой важным субъектом этнонациональной политики являются коренные малочисленные народы, в связи с чем требуется введение дополнительных индикаторов, отражающих их культурное развитие и участие в этнополитических отношениях. Инструментарий эмпирических кроссрегиональных исследований обычно предполагает измерение отдельных переменных. В статье представлена более комплексная и системная методика, основанная на идее построения интегральных индексов, агрегирующих значения множества взаимосвязанных индикаторов. В целях анализа динамики этнических компонентов социальной системы региона предложен набор категорий, посредством которых возможно описание конфигурации основных этни-

public health, reindeer husbandry, industrial development of the territories, education and language. The author has noted activities of the Russian Association of Indigenous Peoples of the North, Siberia and the Far East. In conclusion, the author states that despite the existing shortcomings because of the self-sufficient public-state and ethnic policy, in the Russian Arctic, there is an ongoing system of ensuring rights of indigenous small-numbered peoples, their traditional way of life and economic activities.

Keywords: *indigenous small-numbered people, the Arctic natives, traditional way of life, traditional economics, Russian legislation, Russian Association of the Indigenous Small-numbered Peoples of the North, Siberia and Far East.*

Abstract. The article considers the methodic aspects of empirical ethnopolitical and ethno-social research in the regions of the modern Russia. It is demonstrated that the tools for quantitative sociological research of interethnic and interdenominational relations should be adapted for large-scale cultural-historical groups of the regions. E.g., in the case of the Russian Arctic, the indigenous small-numbered peoples are an important subject of the ethnic policy, which requires the use of additional indicators that represent their cultural development and participation in ethnopolitical relations. The toolkit of empirical cross-regional studies usually includes the measurement of individual variables. The article proposes a more complex and systematic methodology based on the idea of constructing integral indices, aggregating the values of a set of related indicators. To analyze the dynamics of the ethnic components of the region's social system, a set of categories is proposed, through which it is possible to describe the configuration of the main ethnic actors and the state of political and cultural institutions. The categories were operationalized for the political, societal and socio-cultural subsystems of the region, resulting in a system of indicators for monitoring ethnopolitical

ческих акторов и характеристика состояния политических и культурных институтов. Данные категории были операционализированы для политической, социетальной и социокультурной подсистем региона, результатом чего стала система индикаторов мониторинга этнополитических и этносоциальных процессов. В статье продемонстрирован пример процедуры построения интегрального индекса качества национальной политики (nationalities policy index) на основе совокупности индикаторов, введенных авторами для измерения этнополитических процессов в регионе. В заключение работы поставлены проблемы унификации процедур измерения данных, полученных посредством разных методов из качественно различающихся источников.

Ключевые слова: этнополитические процессы, этносоциальные процессы, интегральные индексы в социологии, этнокультурное разнообразие, межэтническая консолидация, национальная политика, Арктическая зона РФ.

ХАКНАЗАРОВ С.Х. К вопросу о взаимодействии коренных народов Севера и промышленных компаний на примере Югры

Khaknazarov S.Kh. On the interaction of indigenous peoples of the North and industrial companies: the case of Yugra

Аннотация. В данной работе обобщаются и анализируются результаты социологического исследования по проблемам социально-экономического развития территорий традиционного природопользования (ТТП) коренных малочисленных народов Севера (КМНС). Цель и задачи исследования заключались в получении информации о социально-экономическом положении территорий традиционного природопользования и состоянии промыслов коренных малочисленных народов Севера. Результаты социологического исследования показывают, что основным мотивом, побуждающим к занятиям традиционными видами хозяйственной деятельности, у представителей коренных народов Севера является сохранение образа жизни. Большинство опрошенных полагает, что взаимоотношения между владельцами территории традиционного природопользования и пользователями недр должны строиться только на договорной основе (имеется в виду заключение экономических соглашений). Более половины респондентов полагает, что экономические соглашения, заключаемые между пользователями недр и владельцами ТТП, могут частично компенсировать их затраты и обеспечить общины. С другой стороны, незначи-

and ethno-social processes. The article shows an example of the procedure for constructing an integral index of the ethnic policy' quality (nationalities policy index) based on indicators proposed by the authors for measuring ethno-political processes in the region. In the end of the paper, the major issues for the measuring the data unification got with the use of different methods from qualitatively different sources is set.

Keywords: ethno-political processes, ethno-social processes, integral indices in sociology, ethnocultural diversity, interethnic consolidation, ethnic policy, the Russian Arctic.

Abstract. In this work the author generalized and analyzed the results of a sociological study on problems of social and economic development of the territories of the traditional environmental management (TTEM) of the indigenous ethnic groups of the North (IEGN). The purpose and research problems are consisted in obtaining information on economic and social conditions of territories of traditional environmental management and a condition of the IEGN's crafts. The results of a sociological research show, the main motive for traditional economic activity among the IEGN is preservation of the traditional lifestyle. Most of respondents believe that relationship between of the TTEM owners and subsoil users must be based only on a contractual basis (economic agreements). More than a half of respondents believe that the economic agreements concluded between subsoil users and the TTEM owners can partially compensate their expenses and provide communities. On the other hand, an insignificant part of respondents shows mistrust to this form of the relations, saying that the economic agreement is just a formality. Only an insignificant part of respondents noted that their relations with subsoil users were conflict.

тельная часть опрошенных демонстрирует недоверие к данной форме отношений, считая экономическое соглашение пустой формальностью для отвода глаз. Лишь незначительная часть респондентов отметила, что их отношения с пользователями недр бывают конфликтными.

Ключевые слова: территория традиционного природопользования, народы Севера, респонденты, опрос, недропользователи, взаимоотношения, экономические соглашения, выплаты.

Keywords: territory of the traditional environmental management, peoples of the North, respondents, poll, subsoil users, relationship, economic agreements, payments.

REVIEWS AND REPORTS

ГЕРАСИМОВ Д.А. Новая книга по истории колонизации Мурманского берега

GERASIMOV D.A. A new book on the history of the Murman coast colonization

Аннотация. Рецензия на книгу П.В. Федорова и А.А. Малашенкова «Почва на северных скалах: Православный некрополь Мурманского берега Баренцева моря (1863–1920 гг.)». На основе обработки комплекса метрических книг в новом издании представлены сведения о 2 524 лицах православного вероисповедания, похороненных на Мурманском берегу или утонувших в море в 1863–1920 гг. Авторы выявили демографическую статистику периода зарождения населённых пунктов с постоянным населением. Книга уточняет представление о «культурной почве», местных и семейно-генеалогических структурах Русской Арктики, вносит вклад в историческую персонификацию Мурманского берега.

Ключевые слова: смертность, метрические книги, Мурманский берег, Кольский Север, Арктика, колонизация, демография, некрополь.

Abstract. The review of the book by P.V. Fedorov and A.A. Malashenkov “Soil on the Northern rocks: Orthodox necropolis of the Murmansk coast of the Barents Sea (1863–1920)”. The study based on the processing of metrical books made it possible to publish the information about 2,524 persons of the Orthodox religion buried on the Murmansk coast, or drowned in the sea in 1863–1920. The Authors found the demographic statistics related to the appearance of the settlements with permanent population. The book clarifies the idea of “cultural soil”, local and family-genealogical structures in the Russian Arctic, and it also contributes to the historical personification of the Murmansk coast.

Keywords: mortality, metrical books, the Murman coast, the Kola North, the Arctic, colonization, demography, necropolis.

ПЕТРОВА Ю.С. «Русская Арктика» завершила серию книг по истории освоения архипелагов Земля Франца-Иосифа и Новая Земля

PETROVA Ju. S. “Russian Arctic” has completed a series of books on the exploration history of Franz Josef Land and Novaya Zemlya archipelagoes

Аннотация. В статье дан краткий обзор серии книг, подготовленных к печати в период с 2012 по 2017 гг. заместителем директора национального парка «Русская Арктика», к.г.н. Виктором Кузнецовым и Заслуженным художником РФ Алексеем Григорьевым. Серия посвящена истории освоения сегодняшней территории национального парка, расположенного в Архангельской области, — арктических архипелагов Новая Земля и Земля Франца-Иосифа. В статье подчеркнута особая значимость формата иллюстрированного издания, который был выбран соавторами для серии, что позволило им достичь поставленной цели: интересное сочетание художественного подхода и исторического содержания

Abstract. The article presents a brief overview of a series of books prepared in 2012–2017 by the Deputy Director of the National Park “Russian Arctic”, Cand. Sci. (Geogr.) Victor Kuznetsov and Honored artist of the Russian Federation Alexey Grigoriev. The series is devoted to the exploration history of the National Park’s area located in the Arkhangelsk Oblast — the Arctic archipelagoes of Novaya Zemlya and Franz Josef Land. The article emphasizes the special importance of the illustrated edition, chosen by the co-authors, which allowed them to achieve a goal: an interesting combination of artistic approach and historical content makes the V.S. Kuznetsov’s books accessible to the public reader. The article provides a summary of all five books of the series:

делает книги Кузнецова В.С. доступными для массового читателя. В статье приводится краткое содержание всех пяти книг серии: «История трёх «столиц» арктического архипелага Земля Франца-Иосифа» (2012), «Притяжение земли» (2013), «От воздушного шара до полярной авиации» (2014), «Тайны жизни во льдах» (2015), «Морской путь в Арктику» (2017).

Ключевые слова: *Русская Арктика, Земля Франца-Иосифа, Новая Земля, история, туризм.*

“The history of three “capitals” of the Arctic Archipelago Franz Josef Land” (2012), “Gravity of the Earth” (2013), “From the balloon to the Polar aviation” (2014), “Secrets of the life in the ice” (2015), “A sea route to the Arctic” (2017).

Keywords: *the Russian Arctic, Franz-Joseph Land, Novaya Zemlya, history, tourism.*

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