Policy of the Arctic Council countries in the sphere of environmental security

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Abstract. In this article, the author examines the key points in the policy of the countries which are members of the Arctic Council at the present stage. The main focus is on the environmental safety of the region, its problems and methods of solving them. The Arctic is a unique resource region, subject to large amplitudes of changes in harsh natural and economic conditions that need to be constantly monitored. The paradox is that the abrupt climate changes that create global problems not only negatively affect the entire planet, but also open up new opportunities for the development of the Arctic region. However, it is necessary to understand that successful development of the shelf is impossible without the elimination of problematic points and cooperation within the Arctic Council, which provides broad opportunities for international cooperation. The countries that have territories in this region of course have their own strategic interests, which sometimes lead to conflicts, but cooperation in the field of environmental security is the only area which requires the same return from all countries. In the article the author also discusses the goals and objectives of the six working groups, the results and further prospects for solving existing and emerging global problems.

1. Introduction
Currently, the Arctic is a priority not only in Russia, but also in the other 7 countries that are members of the Arctic Council: Canada, the Kingdom of Denmark (including Greenland and the Faroe Islands), Finland, Iceland, Norway, Sweden and the United States. Each of these countries has its own interest in the Arctic territory, which is not limited to mining. Finland, for example, has a rich experience in the field of ecology, because this state has several biological stations in Lapland, specializing mainly in the ecology of the Arctic. The Canadian Arctic is 40% of the total land area, as well as 2/3 of the sea coast [1]. As for Russia and the United States, after the end of the cold war and the arms race, both countries paid close attention to the development of the Arctic shelf. Norway, for its part, emphasizes that it is open to further cooperation and welcomes the active participation of indigenous peoples of the Arctic in the work of the Arctic Council, of which it is the founder.

It is obvious that each member state of the Council has its own strategy for the development of the Arctic region, which is spelled out not only in official agreements, but also in documents reflecting the national goals of these countries. Despite the fact that the priorities of the powers of the Arctic Council may not coincide due to different resource potentials, the problem of the environmental situation is one of the most important and affects not only various spheres of public life, but also the entire humanity. Due to climate instability, the Arctic is a region which is extremely difficult to develop. Low temperatures and ice storms provoke additional ice loads on hydraulic mechanisms, so countries developing the Arctic shelf are constantly improving existing technologies [2]. This is done not only for
the successful development of territories for the extraction of resources such as oil and gas (about 25% of the world's hydrocarbon resources are found on the Arctic ocean shelf) [3], but also to improve infrastructure and to increase the standard of population living. The author draws attention to the fact that if it is possible to adapt to specific environmental conditions, then global environmental changes make these tasks even more difficult to accomplish. In the Declaration signed in Ottawa in 1996, the countries that are members of the Arctic Council pledged to protect the Arctic environment, maintain ecosystem health, preserve biodiversity, and prevent uncontrolled usage of resources [4]. To do this, the Arctic Council has established 6 working groups, which today include representatives of line ministries, scientists and researchers who are not only considering current problems and climate change, but also ready to respond immediately to emergencies. In may 2019 the working groups were confirmed at the 11th Ministerial meeting in Rovaniemi, Finland. The foreign Ministers of the eight Arctic States approved the budget of the Arctic Council Secretariat for 2020-2021 and listened to the reports of senior officials on the results of the work of the groups for 2017-2019, which, it should be noted, were considered fruitful. During the meeting, the working plan for 2019-2021 was also presented [5].

2. The Arctic Council as a solution
In order to evaluate the work of the Arctic Council in the field of environmental security and understand how appropriate the goals and methods are, it is necessary to consider in detail the activities of each of these groups. The first Arctic working group is the Arctic pollution program (ACAP). This group meets every two years to discuss priority issues (such as mercury emissions, plastic marine waste, and CO3 group waste) and, in general, issues related to the protection of the Arctic environment. ACAP can also take project initiatives. The latest report published in 2019 concerns mitigation of short-term climate pollution from associated gas combustion [6]. The author emphasizes that this report was provided by the Russian gas company “Vygon-consulting” and refers mainly to the Russian Arctic zone, where the percentages of associated petroleum gas utilization have not reached the targets since 2012. The environmental monitoring and assessment program (AMAP) is the second working group responsible for providing up-to-date and reliable information on the environmental state of the Arctic spaces and developing recommendations for the governments of the Arctic Council member countries to reduce air emissions and prevent further pollution. The scope of this group also includes analysis of the impact of pathogenic factors for flora and fauna caused by the activities of various oil and gas companies. With regard to the conservation of biological diversity and monitoring the equitable use of resources, this is the responsibility of the third working group on the conservation of Arctic flora and fauna (CFAA). The inhabitants of the Arctic need additional monitoring, because many of them are endangered, such as polar bears, reindeer, Laptev walruses or bowhead whales. Melting ice deprives some animals of food, which leads to the destruction of the ecosystem.[7] To maintain biodiversity at the same level, it is necessary to develop new tools for influencing the periodically changing and evolving environment. The group is considering options for conflict-free and safe coexistence of humans and their products in the Arctic region.

The EPPR strategic working group is responsible for preventing and filling in missing details in plans and strategies. Each project is considered from the point of view of its environmental safety, and the members of the group offer their own solutions to reduce the likelihood of damage to the environment. It should be noted that the work of EPPR is aimed at preventing pollution of the Arctic seas and, consequently, at preventing accidents on floating stabilization platforms and shows a high level of coherence in cases of oil spills.[8] In addition, to raise awareness among companies and other communities, the working group is preparing short videos aimed at providing brief instructions on how to prevent accidents and assist in their elimination. It is noteworthy that cooperation in the field of Arctic interaction is a fundamental feature that forms not only a social but also a natural system. It can be seen as a response to harsh climatic conditions encouraging people to support each other for the common good. The Strategy also includes monitoring of the water environment (PAME), since a huge number
of river and sea currents converge in the Arctic ocean, often changing their direction due to anthropogenic factors, and of course, the issue of sustainable development of the Arctic region (SDWG), which includes the growth of transport infrastructure, improving the standard of living, education and culture of the indigenous population and Arctic communities, whose existence is impossible without a stable economic basis. As for the Russian Arctic strategy, it includes such a concept as an infrastructure frontier, which involves the development of not only new resource deposits, but also long-explored territories to increase their transport accessibility [9]. We should not ignore the fact that economic growth, which is one of the goals of the Arctic States, is closely linked to the environmental situation (it is radically different from the opinion of F. Fukuyama, who believed that economic prosperity depends on geographical zoning by only 20%, while 80% is accounted for by other market factors) [10], but unfortunately, there is a trend of inverse dependence between them. In other words, economic growth is impossible without causing damage to the environment, and the more developed the state is economically, the more environmental problems it needs to solve. On the contrary, countries that are forced to fight the "resource curse" (for example, Russia, with its oil and gas dependence) have a certain advantage in the field of ecology, but often do not use it, because cheaper technologies have an even greater negative impact on the environment.

If we connect the economic factor with the tendency to cooperate, which was mentioned earlier, then there is certainly an opinion that people are completely devoid of altruism, and they are only motivated to act by economic interests [11]. Speaking in the context of the Arctic region, it is the harsh natural conditions that generate cooperative economic interaction that come to the fore. Famous ecologist S. S. Schwartz also noted that the features of the organization of the Northern systems are precisely a departure from the principles of egoism, mutual support and lack of competition [12]. If these qualities did not exist, the evolution of the ecology of Northern ecosystems would be much slower. Thus, if F. Fukuyama focused exclusively on the internal factors of community formation, which he called spontaneous socialization, then we focus on the harsh conditions of the natural environment [13]. However, we cannot say that the Arctic States do not compete with each other, but the difference is that this rivalry today needs to be considered in a positive aspect, which helps to overcome global problems.

3. The main environmental problems of the Arctic region
The most dangerous problem today is global warming. The Arctic ocean affects the circulation of air masses, and consequently, the climate of the entire planet. In addition, it is necessary to constantly monitor the movement of not only air flows, but also changes in the ice cover, because glaciers are also a product of climate. Between Baffin Land and Franz Josef Land, in the wettest part of the Arctic, there is an overwhelming amount of ice in the Northern polar countries. Their melting contributes to temperature changes (as of 2018 global warming has stabilized at the level of 1.5 degrees Celsius), and is becoming the main factor in the deflection of underwater warm currents that exacerbate this process [14]. This phenomenon reduces biodiversity, leads to the extinction of some species of fish and marine mammals, and hinders the successful development of the Arctic region and the development of its infrastructure. However, the erosion of glaciers opens up new ways for economic activity and Maritime trade, which indicates a positive aspect of this phenomenon. According to the official publication of the Government of the Russian Federation dated December 30, 2019, a plan for the development of the Northern sea route infrastructure until 2035 was approved [15]. It highlights the problems of cargo transportation, support for shipbuilding, and the desire to organize transportation on a permanent basis through the development of new projects, in the mining industry particularly. Warming provides access to remote deposits, which can be considered another positive trend.

A specific feature of the Arctic region is also expressed in the system of fluctuations between high and low pressure indicators, which affect the polar winds. The weaker they are, the higher the air temperature is, which changes the climate not only on the surface of the entire planet, but also leads to more dangerous consequences in other regions [16]. Due to global warming, for example, permafrost is degraded in the Tundra, and craters are formed in the earth that emit methane, which is even more dangerous than carbon dioxide. This is why January 2020 is a year which is considered one of the
warmest in the last 4 years (since 2016) [16], and in the near future, humanity has no choice but to observe a further increase in temperature, unless measures are taken to reduce emissions affecting the biosphere.

4. Conclusion

Thus, the Arctic needs constant monitoring of the environment, which all the countries of the Arctic Council are aware of, developing new technologies for more successful interaction. Despite the desire of countries to strategically strengthen their positions, there is also an understanding that the uniqueness of the Arctic region lies in the fact that experts from different fields of scientific knowledge are required to study it. You can see how the Arctic encourages innovative search in response to the emergence of completely new dilemmas and security issues. Sustainable mechanisms for environmental cooperation within the six working groups also contribute to the economic development of the region, as offshore oil production directly depends on how well companies can adapt to harsh environmental conditions and Arctic fluctuations. In addition, if in the 1990s the creation of Arctic institutions was in question, now the activities of the Arctic Council, its working groups, their methods and results of work do not cause any doubt.

The specificity of the Arctic territories makes long-term forecasting difficult. At the moment, the situation in the field of environmental security in the Arctic is still difficult, but the annual activities of the Arctic Council help to predict the consequences of projects and influence existing problems, while using a lot of resources. In the future, it is planned to increase control over glacier melting and even more closely monitor the flora and fauna. In conclusion, we should also pay attention to the fact that cooperation is an integral part of the development of the Arctic space, and the Arctic Council is more than ever an important institution for protecting the environment and implementing international projects.

References:

[1] Arctic Council Available from: https://arctic-council.org/index.php/en/about-us/member-states [Accessed 20 June 2020]

[2] Gladkiy Y N, Eidemiller K Yu, Samylovskaya E A and Sosnina M N 2019 Conceptual theories and ideologies of sustainable development of the Arctic in the era of changing technological paradigms IOP Conference Series: Earth and Environmental Science 302 012069.

[3] Company “Ernst and Young”. Oil and Gaz of the Arctic Available from: http://pro-arctic.ru/28/05/2013/resources/3516 [Accessed 20 June 2020]

[4] Declaration on the establishment of the Arctic Council Available from: https://oaarchive.arctic-council.org/bitstream/handle/11374/85/EDOCS-1752-v2:ACMMCA00_Ottawa_1996_Founding_Declaration.PDF?sequence=5&isAllowed=y [Accessed 20 June 2020]

[5] Rovaniemi Ministerial Statements Rovaniemi, Finland 7 May 2019 Arctic Council Available from: https://oaarchive.arctic-council.org/bitstream/handle/11374/2418/Rovaniemi_Ministerial_Statements.pdf?sequence=1&isAllowed=y [Accessed 20 June 2020]

[6] Evaluation of Potential Impact of APG Flaring on Arctic Zone Environment Available from: https://oaarchive.arctic-council.org/handle/11374/2450 [Accessed 20 June 2020]

[7] Gekht A B, Eidemiller K Yu, Kudryavtseva R.-E A, Samylovskaya E A, Kulik S V 2020 History of Iceland formation as main Arctic crossroad IOP Conf. Ser.: Earth Environ. Sci. 434 012003

[8] Gladkiy Yu N, Sukhorukov V D, Samylovskaya E A, Kudryavtseva R.-E A, Almazova-Ilyina A B 2020 History and perspectives for the expansion of the Russian Arctic o Ecumene. 2020 IOP Conf. Ser.: Earth Environ. Sci. 434 012005

[9] Zamyatina N A Pilyasov A N 2018 Rossiiskaya Arctica: k novomu ponimaniyu processov osvoeniya (Moscow: LENAND) 400 p

[10] Pelyasov A The Arctic in the new Creative Age: The Arctic Dimension of the Knowledge
Economy Climate Change and Arctic Sustainable Development: scientific, cultural and educational challenges (Paris) 376 p

[11] Levitt S D, Dubner S J New York Times. Unbelievable stories about apathy and altruism Available from: https://www.nytimes.com/2009/10/20/opinion/20freakonomics-excerpt.html [Accessed 20 June 2020]

[12] Schwartz S S 1980 Ecologicheskie zakonomernosti evolutsii (Moscow: Science Publ.) 278 p

[13] Fukuyama F 2004 Trust: the social virtues and the creation of prosperity (Moscow: ACT) 730 p

[14] Arctic climate change update 2019 Available from: https://oaarchive.arctic-council.org/bitstream/handle/11374/2353/ccupdate18.pdf?sequence=1&isAllowed=y [Accessed 20 June 2020]

[15] Government of the Russian Federation. The order of December 30 2020 № 3120-p Available from: http://government.ru/docs/38714/ [Accessed 20 June 2020]

[16] Sullivan B K It’s the Warmest Winter Ever and It’s the North Pole’s Fault Available from:https://www.bloomberg.com/news/articles/2020-02-21/it-s-the-warmest-winter-ever-and-it-s-the-north-pole-s-fault [Accessed 20 June 2020]