

## The Arctic zone: possibilities and risks of development

A Sentsov<sup>1</sup>, Y Bolsunovskaya<sup>2</sup>, and E Melnikovich<sup>3</sup>

<sup>1</sup>National Research Tomsk State University, Tomsk, Russia

<sup>2,3</sup>National Research Tomsk Polytechnic University, Tomsk, Russia

E-mail: <sup>1</sup>134-43@mail.ru, <sup>2</sup>ju\_al@inbox.ru, <sup>3</sup>melhmelll@gmail.com

**Abstract.** The authors analyze the Arctic region innovative possibilities from the perspective of political ideology and strategy. The Arctic region with its natural resources and high economic potential attracts many companies and it has become an important area of transnational development. At present, the Arctic region development is of great importance in terms of natural resource management and political system development. However, the most important development issue in the Arctic is a great risk of different countries' competing interests in economic, political, and legal context. These are challenges for international partnership creating in the Arctic zone, Russian future model developing for the Arctic, and recognition of the Arctic as an important resource for the Russians. The Russian economic, military, and political expansion in the Arctic region has the potential to strengthen the national positions. The authors present interesting options for minimizing and eliminating political risks during the Arctic territories development and define an effective future planning model for the Russian Arctic.

**Acknowledgment.** The present work was realized and subsidized within the framework of the research "Political identity formation in the context of the image of the future modeling" supported by the President of Russian Federation Grant for state support of young candidates of science MK-7447.2016.6.

### 1. Introduction

Nowadays, the Arctic zone is a very important subject of international geopolitics. In addition, this is an extremely important ecological and environmental subject. Again the Intergovernmental Panel on Climate Change has informed about serious and irreversible effects of global warming. The ice floe melts, the inhabitants run away, the biodiversity suffers, and, often, disappears. So the threat is real [3].

The challenges are numerous: to open a new seaway, to create air stops, to exploit new hydrocarbon and gas deposits, etc. No doubt, the Arctic is a zone of technological innovations and new perspectives and possibilities. For centuries, and even in the twentieth century, the Arctic has remained almost unknown, except for the indigenous peoples living there for millennia. Subsequently, the increasing military build-up in the North, from Alaska to Siberia, has placed the region at the heart of the conflicts of the Cold War and made from it a forbidden zone for almost the second half of the previous century [10].

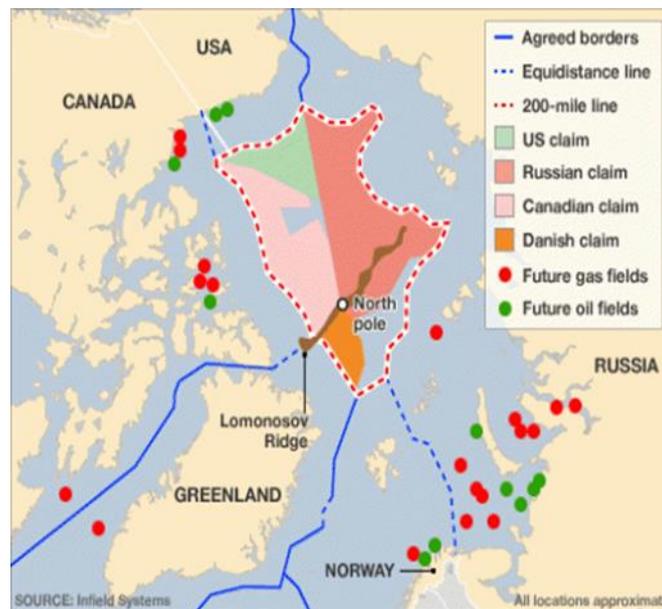
Also historically, in comparison with European and Asian civilizations, the Arctic, as cooperation territory, in the field of economic and political progress, is almost like a new planet; the region is so young in the global context that has no equivalent in the world.



For the Russian Federation the Arctic is a key zone of potential economic growth and positioning in the international community. The effective modeling of the Russian Arctic future is extremely important for the Russian state.

## 2. Arctic zone division and cooperation

One of the most important and dangerous issue in terms of international security assurances is the Arctic zone division between different countries (see the Figure 1). Originally, there are five countries of the polar circumference: the United States, Canada, Denmark (via Greenland), Norway, and the Russian Federation. Approximately 25% of the undiscovered reserves of natural gas and oil are supposed to be located in the Arctic [1].



*Fig. 1. Five countries of the polar circumference [4]*

But in the 1990s these five countries with the participation of another three ones situated in the Arctic zone, namely, Finland, Iceland, and Sweden, created a high-level intergovernmental forum – the Arctic Council.

During the creation of the Arctic Council in the 1990s, the eight member states were still hesitant in their approach and their mandate was very limited, mainly reduced to science and the environment; a rotating presidency and no permanent secretariat.

Nevertheless, the Arctic Council has matured, has turned into an effective tool for negotiating treaties, global agreements and concrete actions. In addition, even more remarkable, since the decision of the Council of Ministers of Kiruna in 2013, more than half of the G20 countries, the main countries of Europe and Asia, will be one way or another at the Arctic table.

The Arctic, yet distant and unknown to the late twentieth century, has become a new field of action where the main economic and political forces advance gradually, ensuring their presence and long-term interests [9].

The intersection of multiple factors can cause the geopolitical conflicts in the Arctic, often under the guise of legal considerations [8]. Land claims are not frozen. They are even essential, especially in the context of the exclusive economic zone extension through the continental shelf enlargement. There are limits of the Committee of the Continental Shelf and of the Committee of London. It is up to them to decide these claims based on rules set by the United Nations Convention on the Law of the Sea. The

treatment of territorial disputes seems to take place in serene conditions despite what the media echoes let appear.

In this context, it is very important that the economic interest is a powerful engine of compromise. In this regard, the relationship between Russia and Norway can be a good example. The land border between Russia and Norway was conformed in 1944, at the end of World War II. A treaty was signed between the two countries, to the detriment of Finland, which lost its access to the Barents Sea. Nowadays, Norway and Russia are active and well represented in a multitude of organizations: the Arctic Council, the Euro-Arctic Barents Council, and the Council of Baltic Sea States. This institutional overlapping is also established at the regional level. For example, the county of Finnmark and Murmansk Oblast have cooperation agreements, either economical or institutional. Another example of this stability: economic interdependence.

This interdependence between Oslo and Moscow is also found on the capital and financial plan. The Norwegian pension fund, very powerful, has a varied portfolio of shares in major companies in the world and especially in major Russian companies in the banking and energy sectors.

For example, Tele North Norwegian Telecommunications Company owns 33% of the Public joint-stock company “VimpelCom”, one of the three largest Russian telecommunications companies. It should be added that in September 2010 the Treaty of Murmansk was signed, to resolve a long border conflict between Russians and Norwegians. This treaty, signed between Russian President and Norwegian Prime Minister perfectly illustrates this stability [6].

Note, that the Barents region is the most populous of all the Arctic area. There are nearly 3 million between Murmansk Oblast, Arkhangelsk Oblast and the Republic of Karelia. The three most populated cities are Murmansk, 300 000 inhabitants, Arkhangelsk 350 000, and Petrozavodsk, capital of Karelia 270 000. The Russian side represents the largest population. On the Norwegian side, Tromsø is situated, the largest city in northern Norway with 70 000 inhabitants.

Then we may say about indigenous people, Fennoscandia and the Kola Peninsula are home to around 40,000 Sami, Norway is home to half of this population. For Russia, although there are no official figures, the population of the Sami could remain around 2000 inhabitants [6].

The bilateral relationships between some Arctic riparian countries are very good organized. But as for the eight Arctic Council member states one of the basic document that regulates their relationships in the Arctic region is the Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic (see the Figure 2), signed on May 12, 2011 in Nuuk, Greenland [5].



*Fig. 2. Map of the Arctic search and rescue areas, the Agreement of 2011 [5]*



It is generally admitted that among the so-called Arctic seaways the most important are the Northern Sea Route along the Russian coast and the Northwest Passage that borrows multiple straits and bypasses in the Canadian archipelago of islands. The only uncertainty concerns the date on which a track is navigable throughout the year. Over the decades, these two Arctic sea-lanes were completely ice-free, but only for very short periods, especially in September. Moreover, it is not sure that the appropriate port infrastructure already exist, including the Canadian side. However, the riparian States have begun to develop these Arctic waterways. Russia uses it more than any other country. In 2010, four ships passed through the Northern Sea Route; the following year thirty-four ships passed along the Russian coast.

Another important issue leads us to emphasize the global dimension of the Arctic fate: the continued protection of its ecosystem [2]. Any human intervention is likely to disturb the balance between plant and animal species. The Arctic is a very vulnerable region. Take the example of migratory species arriving in the Arctic summer, precisely when routes are the most feasible. Ships and animals are concentrated in the same places, and that increases the risks. Now it is known that the disappearance of species in a chain influences others, especially in an environment where the species number is relatively small, that is the case of the Arctic. There is no need to mention the risks of pollution because of the oil and gas development.

## 5. Conclusion

The above-mentioned examples show that the issues of the Arctic cannot be treated in small groups. It interests the whole international community and not only the riparian states. The most important point in the Russian Arctic future modeling is in this context that the continued active engagement of all the countries is of particular importance. The Arctic zone risks can be transformed into new possibilities not only for the Russian Arctic but also for the whole world. And in this situation the most important and fundamental efforts should be done by the key players of the international geopolitics of our days, namely Russia, the United States, the European Union, and the People's Republic of China.

The cooperation of different countries in the region can influence the economic development as well as the political situation and international relationship in the Arctic zone. The Arctic will play a key part in the modeling of an effective future for the whole world.

## References

- [1] Alhadeff, I. (2015). United States and Russia in the Arctic Zone. URL: <https://iakal.wordpress.com/2015/08/05/united-states-and-russia-in-the-arctic-zone> (access date: 02.03.16)
- [2] Bolsunovskaya, Y., et al. (2015). Integrated analysis of risks in terms of Russian Arctic zone sustainable development. *IOP Conf. Ser.: Earth Environ. Sci.* **27** 012021, doi: <http://dx.doi.org/10.1088/1755-1315/27/1/012021>
- [3] Climate Change 2014: Impacts, Adaptation, and Vulnerability. (2014). Report, Intergovernmental Panel on Climate Change, 31.03.2014. URL: <http://www.ipcc.ch/report/ar5/wg2> (access date: 04.03.16)
- [4] Emmerson, C. (2010). *The Future History of the Arctic*. New York: Public Affairs
- [5] Farré, A.B., et al. (2014). Commercial Arctic shipping through the Northeast Passage: Routes, resources, governance, technology, and infrastructure. *Polar Geography*. **37** (4), 298 - 324
- [6] Isachenkov, V. (2015). Russia to UN: We are claiming 463,000 square miles of the Arctic. *Military & Defense, Business Insider*, 04.08.2015. URL: <http://www.businessinsider.com/russia-to-un-we-are-claiming-463000-square-miles-of-the-arctic-2015-8> (access date: 04.03.16)
- [7] Nato on high alert as Putin eyes up Arctic for empire. (2015). *Daily Express*. Northern and Shell Media Publications. URL: <http://www.express.co.uk/news/world/508019/Nato-high-alert-Putin-eyes-Arctic-empire> (access date: 05.02.16)

- [8] Sentsov, A., Aleksandrov, O., Bolsunovskaya Yu., Kuimova M. (2015). Modeling of the Future in the Programs of Political Parties. *Proceedings of the International Conference on Research Paradigms Transformation in Social Sciences 2014*. Vol. **166**, doi: 10.1016/j.sbspro.2014.12.568
- [9] Sentsov, A., Bolsunovskaya, Yu., and Bolsunovskaya, L. (2014). Effective Planning of the Future of the Arctic. *IOP Conf. Ser.: Earth Environ. Sci.* **21** 012014, doi: <http://dx.doi.org/10.1088/1755-1315/21/1/012014>
- [10] Shcherbinin, A., Danilova, E., Sentsov, A., Bolsunovskaia, L., Bolsunovskaya, Y. (2015). The Russian Arctic: innovative possibilities at the turn of the past and the future. *IOP Conf. Ser.: Earth Environ. Sci.* **27** 012022, doi: <http://dx.doi.org/10.1088/1755-1315/27/1/012022>