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Economic problems of Arctic mastering

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Abstract

The article deals with problem of exploring the Arctic territories by different countries. Nowadays these territories are turning into the area of conflict of these countries. These territories and resources do not belong to any specific state, because they are not situated in any borderlands. In its turn this fact leads to economic and political problems which have been existing for a long period of time. This article includes the brief historical information about Arctic mastering and the analysis of modern economic situation. Besides, different methods of solving economic and political problems are represented, including the private method of authors.

Keywords: Arctic, international conflict, Russian policy, oil and gas;

1. Introduction

The North Pole for a long time has been drawing attention to travelers and researchers. These people got further and further to the North Pole and plotted new islands and archipelagoes of the Arctic, overcoming extreme difficulties. Nowadays almost all parts of the Arctic have been already photographed and reconnoitered from planes, satellites and several counties. So different countries are interested in Arctic resource rising.

2. Author Artwork

There was an especially strong interest in Arctic region after World War II. The intensive exploring from air was conducted and later the first detailed maps were made. In 1954, according to the data of air exploring, the USA and Russian Federation founded several drifting observing stations on ice floes for the purpose of development of scientific researches. In several years, during the International geophysical year (1957 - 1958), the Northern countries which were interested in the Arctic region have founded over 300 Arctic stations. Later, in 1977 the Soviet nuclear Arctic icebreaker ship reached the North Pole and became the first ship which has done this.

In the 1960th years the Arctic became the place of intensive searching for mineral and natural resources. Detection of oil in the northern part of Alaska in 1968 and on the Canadian Ellesmere Island in 1972 led to continuous attempts to find oil in the other places of this region. In summer

1969 the specially designed icebreaker ship "Manhattan" with functions of the oceanographic researching ship and oil tanker, has successfully moved from Philadelphia to Alaska through the Northwest Passage. This fact became the first attempt to attract commercial vessels to the region.

In 1971 the experiment of dynamics of the Arctic ices was carried out. As a result, an ozone hole over the Arctic was founded. This "gap" is similar to the big exhaustion of an ozone hole over the Southern polar region, which means a possibility of increasing of world sea level.

In the 21st century, the increased interest in resources in the Arctic Ocean was caused by reduction of a constant ice covering. As a result, of global warming it led to territorial disputes between the Arctic states. Nowadays almost all parts of the Arctic have been already photographed and reconnoitered from planes, satellites and several countries.

3. The separation of the Arctic

There are five countries which have sea borderlands in the Arctic Ocean: Russian Federation, United States of America, Canada, Denmark and Norway. Historically, these countries divided the territory of the Arctic Ocean into five parts called sectors, so each sector belongs to one of them. Every sector is limited by the sea coast of the country and the meridians from the North Pole to east or west borders of the country.

However, in 1982 Conventions of the UNO (United Nations Organization) on the marine law, which include other principles of separation, were adopted. According to it, full sovereignty of the coastal country includes only a 12-mile zone of territorial waters with its air space, bottom and subsoil. Besides, the 200-mile economic zone is established. The bottom of seas and oceans and its subsoil which do not belong to any sectors is related to the general heritage of the mankind. It means that all countries have the equal rights for extraction of its natural resources and every country has a right to submit the application for extraction of its resources to the UNO or other specialized international organizations. The Russian Federation ratified the Convention in 1997, by this moment the document was signed by 159 countries and 108 of them ratified it. Being the 109th state in this list, Russia lost the sovereign rights for 1,7 million square km of the Arctic sector. It is an interesting fact that the USA still did not ratify this convention, claiming that it infringes upon their national interests [1].

The lines designating lateral limits of polar sectors according to modern international law do not admit borderlands of the states. And for the last couple of decades Russia actually lost some Arctic territories. So in 2010 in Murmansk the president Dmitry Medvedev signed a contract with Norway about separation half of the disputable zone situated in the Barents Sea (about 175 thousand sq.km). Actually this contract fixes our refusal of considerable territorial sector in the Barents Sea and the narrowing of the water area for fishing. Recently, it became clear that the area of the shelf of the Barents Sea which was given to Norway according to this agreement is a rich oil-and-gas province. According to data of **Norwegian Petroleum Directorate** (NPD), two years of seismic exploration showed existence of nearly 1,9 billion barrels of hydrocarbons (15% — oil) in the region of the stocks, so this fact raised an assessment of the shelf stocks of Norway by 11% — to 18,7 billion barrels, reports Reuters.

Besides, the Murmansk contract does not mention the early resolutions establishing the demilitarized status of Spitsbergen and the right for conducting the economic activity of the USSR and its special economic rights in the archipelago. Lack of the reference to these agreements allows Norway to raise a question of revision of the status of Spitsbergen, including elimination of the Russian settlements. Moreover, this unsuccessful contract for Russia was apprehended by the USA as the sign that our country is ready to make concessions in territorial argues. Now the American experts are trying to apply to "the Murmansk plan" in solution of the problems of the Bering Sea and the problem area between the East Siberian Sea and the Bering Strait.

Nowadays, the states try to expand their polar borderlands by the new way. They try to prove that the ocean floor is a part of the continental plate which the state is located on. So Canada, Denmark and Russia argue for the transarctic ridge of Lomonosov. In fact, it is the Transarctic Bridge which is 1800 km long and 200 km wide. If Russia proves that this bridge is a continuation of its continental shelf, it will assign to our country nearly a half of the surface of the ocean, including the North Pole [2].

4. There is something to argue for

Due to estimation of Russian and American geologists, there is about 25% of world oil-and-gas reserves concentrated under a bottom of the Arctic Ocean. According to preliminary data, our country has got almost 80% of its hydrocarbon stocks in Russian part of the Arctic. 20 oil-and-gas fields have already been found in Barents, Karskiy and Pechora seas. Besides, platinum, gold, diamonds, rare-earth metals are situated on the Arctic shelf.

Interest in development of the Arctic resources is stirred by forecasts about global warming. There are a lot of countries, which declare about their economic interests in the Arctic area, not only north and subarctic. All of these states have a right to work in free economic zone. Germany, India, Japan and Korea are making their research in a polar zone.

However, scientists are differed in their forecasts. For example, Ivan Frolov, a director of the Arctic and Antarctic research institute, who visited the recent forum "The Arctic- Present and Future", declared that the situation in the Arctic will be constant for the next 10 years. And we must make some additional researches for more long-term forecasts [3].

5. China rushes to the North

China is also actively engaged in the polar research. For example, the Chinese national corporation specializing on extraction of shelf oil took part in the tender for obtaining the license for exploration and production of hydrocarbons at the Northern coast of Iceland in partnership with the Icelandic company "Eykon Energy".

Nowadays, China intends to explore actively new Arctic routes. According to the Chinese experts, it will allow to reduce cost of shipping by 120 billion dollars a year. The Northern Sea Route is about 4,5 thousand km shorter than the way through the Suez Canal. The deputy director of the Chinese Center of Management Li Yuanshen declared the needs of providing China with a direct access to the Northern Sea Route: "For us a question of development of the Arctic key is very important. And we would like Russia to provide favorable conditions for passing of our vessels through the waters". Therefore, there is a probability that in the future China would demand the status of neutral waters to the Northern Sea Route.

China creates special northern fleet. In 1993 China bought the biggest ice breaker in the world from Ukraine – the diesel electric vessel "Snow Dragon". However, it is not intended on ice more than 1,5 meters thick, but Chinese declare that they would build the ice breaker which is capable of overcome ice 4,5 meters thick.

6. The Arctic provocations

In 1876 at the international conference in Brussels the countries of the West declared that the states which have big natural riches, but have no resources for their development, have to reveal before the developed countries, or will force them to it. Then it was mentioned about the countries of Africa, but since then the focus was considerably shifted towards Russia. The USA and the West actively use ecological subject for the preparation of future internationalization of resources in the Russian sector of the Arctic

That is why the fighting actions of "Greenpeace" and Sergey Medvedev's appeal quite provocative character. Professor of HSE suggests refusing exclusive economic zones in the Arctic, as well as in general military activity, production of natural resources, trade fishery and transit commercial navigation. He claims that Russia cannot rationally and carefully use the territories and therefore it has already lost sovereignty over its considerable part.

All this facts serve as arguments in protection of conflicts "for piracy" by Greenpeace members. It is remarkable that they have chosen not acting. Norwegian boring as the target, but the Russian platform which was not started working yet. It should be noted that in Norway "Greenpeace" protests too – but exclusively peacefully, without illegal actions. Russian station "Prirazlomnaya" is attacked by them not in the first time. Probably, they considered the previous actions unreasonable.

7. The Arctic and Russia nowadays

Vladimir Putin told that the proposal of professor of HSE to give the Russian zone of the Arctic for management of the international community is a "full nonsense", having declared that "The Arctic is the integral part of the Russian Federation which is under our sovereignty within several centuries. So it will also remain in all subsequent times". According to him, there are American nuclear submarines close to the coast of Norway. "Subflight time of the American rockets from this region of the world to Moscow is 16-17 minutes. Due to these conditions that this region has to be given for someone's management –it is a full nonsense. It is an antinational position", – Putin emphasized [4].

Nowadays, the program of development of hydrocarbons on a continental shelf of Russia provides the bringing level of production of oil and gas condensate with 10 million tons, gas – with 170 billion cubic meters a year by 2030. The Barents Sea, the Ob and Tazovsky lips are the main areas of production. The Russian authorities intend to stimulate development of oil and gas fields on the shelf of the Arctic by means of long-term tax benefits.

At a forum in Sochi the president of "Rosneft" Igor Sechin has reported that his company intends to begin prospecting drilling in the Kara Sea and to find the field with stocks of 3,5 billion tons of oil and 11 trillion cubic meters of gas. Partners of "Rosneft" in development of the Arctic fields are the leading power corporations of the world – the American ExxonMobil, the Norwegian Statoil and the Italian Eni.

The development of the fields of the Kara Sea of "Rosneft", according to the statement of its vice-president, will require 500 support vessels. United Shipbuilding Corporation (USC) is not capable to provide such requirements, therefore vessels should be ordered from abroad.

As for "Gazprom", it intends to develop the Russian Arctic shelf together with the British-Netherlands company Royal Dutch Shell. At the same time, "Gazprom" possesses only 50,002% of stocks. Owners of other 49% of stocks are not advertised. According to all these circumstances professor of HSE is right: extraction of the Arctic hydrocarbons would not bring special benefit for Russia and would enrich generally certain private owners and foreign corporations.

However, the position of the Russian government concerning the Arctic cannot be judged unambiguously. For the last two decades Russia has closed up the majority of northern programs, and these thrown stations and dumps gave an excess reason to reproach our country with inability makes thrifty use of the resources and territories, for example, commodity turnover of "Sevmorput" for the last 17 years has reduced by 5-6 times. Practically, all the northern ports which drag out a miserable existence nowadays became unclaimed. Meanwhile, the Northern Sea Route ensures strategic safety of Russia because it passes only through our waters and does not depend from any borders, and it is the safest and the shortest way for cargo delivery from the Pacific Ocean in Atlantic.

Nowadays on the wave of general interest in the Arctic it was declared about the revival of the Northern Sea Route. If in 2010 there were passed only four vessels, then in 2011 there were 34, and in the 2012th – 46. Recently the Russian authorities gave permissions to commission of 400

voyages. However, "Sevmotput" actually should be recreated in a new way. To open the Arctic ports for calling of foreign vessels, it is necessary to clean at least the huge dumps of scrap metal which remained after the emergency evacuations and liquidations of military and civil structures. It is necessary to restore infrastructure of service of vessels, but now there is no opportunity to serve them. It is important to recreate systems of providing vessels with the bunker, water, diving survey and urgent repair. To have an opportunity to change crews of vessel, there is an emergency to restore airports which earlier were at all ports. It is also necessary to restore hydro meteorological stations providing of the route with a new technical basis.

For today the decision of reanimation of the military base on New Siberian Archipelago was made. Here would be restored the airfield and organized collaboration of representatives of the Ministry of Emergency Situations, hydrologists, specialists climatologists to ensure safety and efficiency of works on the Northern Sea Route. Moreover, 910 million rubles were allocated from the state budget for creation of 10 Ministries of Emergency Situations rescue centres. They were created in Naryan-Mar and Dudinka, Peveke, Murmansk, Arkhangelsk, Vorkuta, Nadym, Anadyr, Tiksi and settlement of Providence.

There are three existing ways to solve the problem of the final Arctic separation between Northern states:

1. According to the shelf and its parameters which include continuation of its continental shelf, the length of coastal area (200 sea miles) and as a result the neutral area for the Northern countries situated in the Centre of the Arctic, opened only for such actions as fishing or commercial vessels.

2. Historical way. It means that the separation is carried out according to the exploration of this region by different states

3. According to the area of a coastal zone without the neutral area.

Besides, we would like to add one more extra way, the connection with sea infrastructure of Northern countries.

We would like to consider in details each of possible decisions:

- 1) Advantages of the distribution of territories by the states according to the line of the shelf belonging to them, is the division of a zone into the sites which are sufficient for development of minerals, and also the creation of a free zone for navigation and transport routes, without violation of water state borders. This way of division is showed on the picture 1.

Shortcomings of this division is first of all that Russia will lose considerable part of the territories which contains big deposits of minerals, and also the question of division of a neutral zone shortly again will be brought up. These two factors force us to refuse the choice of this option of the territorial division.



Fig. 1. picture

2) Considering method of division of territories historically, it should be noted that it would be rather difficult to draw sea lines.

First of all, it is connected with initially various methods of research of the Arctic by every country - by means of balloons, submarines, the research drifting stations and ice breakers. This way, if we use documentary information, the received borders are complicated. As the result, the states with the developed sea infrastructure should spend more time and to sustain considerable financial losses transporting freights, on condition of lack of permission to crossings of sea borders that could become the reason of the international conflict.

Therefore, from the point of view of authors, this decision is the least disputable from the point of view of the rights for the controlling area, but at the same time is one of the least favorable from the economic point of view.

3) This technique of carrying out sea borders is similar to division according to benches of the shelf; however the main distinction makes that division happen completely, without creation of a neutral zone.

For the Russian economy the most favorable is this option as beyond Russia there are big squares on which investigation regarding the content of minerals has been carried out and which are attractive to our country in the long term.

As for the shortcomings, it is possible to call discontent of the countries with the small coastal frontier leaving to a zone of the Arctic.

4) The target income of small countries with the developed sea infrastructure depends directly on the area belonging to them. The authors have proposed the solution supplemented in point 3. In particular, it was offered to make in addition individual index for this country including the level of sea infrastructure, quality and the directions of use of the zones belonging to each country, and also influence of it on the gross income of each country. The scheme of infrastructure of the Arctic countries is shown on the picture 2. As you can see, the points and its color show the main Arctic coastal communities and its sea freight turnover.

As a result, authors hope that this approach will be most balanced, from the point of view of first of all preservation of economic balance for the competing countries, and at the same time will allow to keep to sea powers of a possibility of development of the main source of the income. Besides, it was offered to impose in addition a ban on investigation and development of the water resources belonging to other country without document allowing work in the territory of other state, as well as the corresponding conditions of the conclusion of this agreement taking into account an economic benefit for both parties.

Such policy for Russia will allow keeping considerable part of natural resources in adjacent marine territories. For example it is possible to consider a situation in the Kara Sea between the domestic companies and their foreign competitors.

Conclusion

Summing up, we would like to draw your attention to the most successful way of division of the Arctic from the point of view of permission of the arisen conflict and carrying out sea borders of various states according to their sea infrastructure and length of the coastline. For the Russian economy, this decision means preservation of significant areas which are already planned for realization in long-term economic period. Moreover, it should also be noted that the chosen method of carrying out sea borders would provide Russia with about a half of all area of the Arctic.

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