



REPORT

ASIAN PLAYERS IN THE ARCTIC: INTERESTS, OPPORTUNITIES, PROSPECTS

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Authors:

A.N. Fedorovsky, Dr. of Economics (Part 3); **L.V. Filippova** (Foreword); **T.A. Makhmutov**, Ph.D. in Political Science (Foreword); **H. Nadarajah** (Part 5); **V.E. Petrovsky**, Dr. of Political Science (Part 2);

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K.A. Kuzmina

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The Arctic's growing geopolitical and geoeconomic significance against the background of global climate change determines the interest of non-Arctic players to the region. In 2013 India, China, Republic of Korea, Japan and Singapore became observers to the Arctic Council.

The Report examines non-regional actors' interests in the Arctic, their policy frameworks in the region and principal areas of Arctic studies. Authors also explore the Asian states' positions on the international status of the Arctic. Specific attention is given to the prospects of cooperation between Russia and India, China, Republic of Korea, Japan, Singapore in developing the region.

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Foreword

Few regions which are not torn apart by armed conflicts or social and political upheaval attract close international attention and stay high on the global agenda as the Arctic does. Despite its remote location, the Arctic has become one of the world's main points of attraction, a region to which numerous countries in the Arctic (and well beyond the Arctic Circle) have tied their fates. Countries from East Asia, Southeast Asia and South Asia have noticeably stepped up their research activities in the Arctic, in an attempt to take full advantage of opportunities offered by the North Pole.

The most obvious reason for Asian countries showing an interest in the Arctic is the growing awareness of the immense resources that the Arctic region has to offer. The United States Geological Survey's assessments of the Arctic's hydrocarbon resources are widely known: the Arctic region contains around 13% of the world's undiscovered oil reserves and 30% of its undiscovered gas reserves, with the largest gas reserves being concentrated in the Russian part of the Arctic.¹ What is more, despite the rapid growth of alternative and nuclear energy, fossil fuels are still expected to dominate the energy market until 2040.² The Arctic region is all rich in deposits of ferrous, non-ferrous, rare and precious metals, and non-metallic minerals.³ The diverse marine resources and the transit potential of the region's major transport arteries, the Northern Sea Route and the Northwest Passage, are also of significant value.

Against this background, major Asian economies have shown strong economic growth over recent decades. The demographic situation in Asia is demonstrating positive dynamics, and industrial development is gaining momentum, all of which has a knock-on effect on the consumption of resources. Securing access to new resources is a more pressing issue for a growing economy with an increasing population than observing and forecasting climate change – although studying the climatic and environmental aspects of the Arctic has been identified by the Asian Observers to the Arctic Council as the major reason for increasing their activity in the region. Surely, it is no coincidence that discussions on the challenges of climate change often refer to the Arctic as being the “kitchen of weather in the Northern Hemisphere”. However, the interests of non-Arctic players in the region are not limited to the impact that the Arctic climate might have on the quality of farming, or the occurrence of natural disasters, in Asia.

Asian countries are willing to actively develop fishing in the Arctic seas and thus strengthen their own food security. So far, the Arctic has failed to provide

¹ Assessment of Undiscovered Oil and Gas in the Arctic (Published in Science Magazine, May 2009) // USGS.
URL: <http://www.energy.usgs.gov/GeneralInfo/EnergyNewsroomAll/TabId/770/ArtMid/3941/ArticleID/713/Assessment-of-Undiscovered-Oil-and-Gas-in-the-Arctic.aspx>

² World Energy Outlook 2015 // International Energy Agency. URL: <http://www.worldenergyoutlook.org/weo2015/>;
International Energy Outlook 2016 // U.S. Energy Information Administration. 2013.
URL: [http://www.eia.gov/forecasts/ieo/pdf/0484\(2016\).pdf](http://www.eia.gov/forecasts/ieo/pdf/0484(2016).pdf)

³ Morgunov, M.A., Tsunenovsky, A.Y. Arctic Resources // Energy: Economics, Techniques and Technology, No. 2. 2014. P. 22–31.

a clear answer to the question of whether or not extracting mineral resources on the continental shelf could be economically viable, or indeed whether year-round navigation along the entire Northern Sea Route with a view to organizing regular cargo transportation between Asia and Europe is even possible. These are issues for the future. But the main argument is irrefutable – the Arctic is rich in resources. And all the activities of the Asia Pacific countries in the Arctic are designed to solve the important task of finding new niches to support their economic development.

Asian countries have achieved the same level as developed countries on a number of economic indicators; in certain instances, they have even surpassed them. The Asia Pacific region accounts for two-thirds of the world's economic growth and demonstrates a high level of stability in the face of the weakened global trade and the high volatility of the financial markets.⁴ As the economic power of Asian countries continues to grow, so do their foreign policy ambitions. However, while the case can be made that the centre of the world economy has shifted to the East, the centre of global politics remains in the West.

The economic weight of Asian states is not reflected in their ability to influence global political processes. By turning to the Arctic, Asian countries are eager to prove their worth on the international stage and stake their claim to the status of global power. One of the traditional attributes of a global power has always been the ability to project the might of the state (and not always in a destructive way) anywhere in the world. This is particularly evident in regional conflicts, when developing new and previously inaccessible areas, and during natural or manmade disasters where a rapid response to extreme conditions is imperative. The only countries that are fully capable of developing the Arctic, where extreme natural conditions are the norm, are those which already have the necessary experience, technology and ambition to solve the exigent problems in a systemic manner.

China, Japan, the Republic of Korea, India and Singapore were granted observer status in the Arctic Council at the Ministerial Meeting in Kiruna in 2013. The role of Observers is limited to being kept up-to-date on the agenda formulated by the eight Arctic nations. However, the Asian countries see their presence at the Council as a key achievement of their diplomacy in recent years. The way they see it, the Observer status in the Arctic Council is symbolic reputational capital which places them on a par with such global leaders in the region as Russia, the United States, Canada, Norway, etc.

Getting Asian partners involved in the development of territories of the Arctic coastal states could upgrade the level of responsible cooperation in the Arctic region, broaden the understanding of the region far beyond its borders, and create the conditions for the formation of new intergovernmental and interregional cooperative ties. Despite their extremely limited experience in the Arctic and few relevant technologies to the Arctic development, the Asian countries are actively pursuing projects in the region, including: the creation and advancement of

⁴ Asia: Growth Remains Strong, Expected to Ease Only Modestly (IMF Survey) // International Monetary Fund. 3 May 2016. URL: <http://www.imf.org/en/News/Articles/2015/09/28/04/53/socar050316b>

their own institutions to manage such projects; the development of strategic documents that define their priorities in the Arctic; the training of skilled workers; the development of specific industries; and the formation of network communication mechanisms.

Meanwhile, the lack of opportunities for non-Arctic states to actively promote their positions on regional development within the framework of the Arctic Council could lead to the attempts to structure their policy in the Arctic via separately-set cooperation agreements with the Arctic states. At present, such cooperation is primarily concentrated in research and development areas. For example, Asian countries are currently conducting research in Svalbard in coordination with, and with the support of, Norway. However, in the pursuit of their goal to increase the political weight on the international arena, the new Arctic players should not forget about the unique collaborative environment in the Circumpolar region. Even the Arctic Council Member States, all of which have considerable experience in developing the North, do not question the fact that implementing large-scale projects in the fragile Arctic ecosystem is only possible in a constructive atmosphere and on a multilateral basis. This spirit of cooperation must be preserved in the relationship between the traditional participants in the Arctic dialogue and those who are new to it.

In this paper, we attempted to present a strategic vision of the Arctic and the potential for its development by the new Observers to the Arctic Council – India, China, the Republic of Korea, Singapore and Japan. The capabilities of each of these states, and the level of their involvement in Arctic projects, varies. But they are united in their desire to show that they have the right to study the Arctic independently and to become significant players in the region. In order to develop an understanding of the specifics of their approaches to these tasks, RIAC invited the experts on each of the countries to clarify their vision, drawing on the experience of their research into the area. Today, it is only by scrutinizing the approaches of Asian countries to the Arctic that we will derive the greatest benefit when it comes to identifying new trends in the region in the medium term.

1. India's Strategy in the Arctic

At a scheduled meeting of the Arctic Council, held in Kiruna (Sweden) on 12 May 2013, India received the status of a permanent observer to the international forum, along with other non-Arctic states such as China, the Republic of Korea, Japan, Singapore, and Italy. Many Indian experts called this foreign policy step an “Arctic victory” and a “major diplomatic achievement” for the Ministry of External Affairs of India.⁵ In October 2014, Indian President Pranab Mukherjee visited Norway and Finland and became the first leader in the history of the state to cross the Arctic Circle.

But what are the motives underlying Indian actions in the Arctic? What are the objectives of the South Asian power?

1.1. India's Arctic Policy Framework

India was a party to one of the first international agreements involving the Arctic: the Spitsbergen Treaty signed in 1920 by the United Kingdom, on behalf of its colonies as well. For this reason, Indian experts claim that Delhi is a fully-fledged player in the Arctic region.⁶

Because of its geographic location, India made the Antarctic its priority, advocating its internationalisation and international governance.⁷ India set up the Ocean Research Department to study the Antarctic, which sent its first expedition to the continent in 1981. Two years later, India became the second Asian state after China to sign the Antarctic Treaty.

India considers the Antarctic Agreement an important international achievement ensuring the region's use for the benefit of all mankind. In 2007, Indian Foreign Secretary at the time Pranab Mukherjee stated that the Southern Continent “being a common heritage of mankind and the foremost symbol of peaceful use and cooperation needs to be protected for posterity”.⁸

At present, the Indian expedition at the Southern Pole consists of three stations: Dakshin Gangotri (operating since 1983), Maitri (since 1989), and Bharati (since 2012).⁹

It is by relying on its Antarctic experience that India has shaped the vision of its interests in the Arctic.

⁵ India's Arctic Victory: a Major Diplomatic Achievement // DNA, 21 May 2013. URL: <http://www.dnaindia.com/analysis/column-india-s-arctic-victory-a-major-diplomatic-achievement-1837429>

⁶ Sakhuja V. The Arctic Council: Is There a Case for India? // Voice of India. URL: <http://www.voiceofindia.com/in-focus/the-arctic-council-is-there-a-case-for-india/996/2>

⁷ Lackenbauer P.W. India's Arctic Engagement: Emerging Perspectives // The Arctic of Regions vs. the Globalized Arctic. Arctic Yearbook, 2013. URL: <http://www.arcticyearbook.com/ay2013>

⁸ Lackenbauer P.W. India's Arctic Engagement: Emerging Perspectives // The Arctic of Regions vs. the Globalized Arctic. Arctic Yearbook, 2013. P. 40. URL: <http://www.arcticyearbook.com/ay2013>

⁹ Sakhuja V. Antarctica and the Ice Breakers: What Should India Prepare for? // Institute of Peace and Conflict Studies, 9 January 2014. URL: <http://www.ipcs.org/article/india-the-world/antarctica-and-the-ice-breakers-what-should-india-prepare-for-4242.html>

India has no clearly formulated Arctic strategy. In 2013, following a summit of the Arctic Council in Kiruna, the Ministry of External Affairs of India issued a short statement generally defining the country's basic goals and objectives in the Arctic. It emphasised that India is closely following developments in the Arctic taking account of new opportunities and challenges arising due to global warming and the melting of Arctic ice. In general, India's current interests in the Arctic are scientific, environmental, commercial, and strategic in nature.¹⁰

Occasional statements by Indian officials have not significantly clarified India's position on the Arctic. For example, at a parliamentary hearing in 2014, Vijay Kumar Singh, State Secretary of the Ministry of External Affairs of India, stated that it was important for India to contribute to the Arctic Council's activities, but only in connection with environmental protection and research necessary for more detailed studies of Indian climate specifics.¹¹ India does not exclude that it can benefit from the opportunities which the Arctic offers to the world, but considers it improper to join the Arctic Council only for the development of natural resources.¹²

India places particular emphasis on the fact that it makes no territorial claims in the Antarctic or the Arctic. It will respect the rules and principles of international law, in particular, the Antarctic Treaty that froze such claims and the UN Convention on the Law of the Sea (UNCLOS) setting forth a legal framework for all maritime spaces, including the Arctic Ocean.¹³

In 2012, Minister of Defence of India at the time A.K. Antony stated that the melting of the polar ice caps would have serious consequences for the areas of oceans available for navigation in the future. The straits and strategic sea routes in the Indian Ocean and the Pacific Ocean may also need to be revised.¹⁴

This idea is explored by Indian experts. Deglaciation of the Arctic will open new and shorter routes from Asia to Europe and will redirect the sea traffic from Indian ports, having a negative impact on the existing trade routes in the Indian Ocean.

Indian experts believe that the strengthening of Arctic security may pose a certain threat to India's national interests. For example, delimitation of the maritime space between Russia and Norway in 2010 created opportunities for increased development of Arctic resources, which may prove to be the main driver of global climate change. Arctic ice melting will lead to a sea level increase and changes in both the ocean chemistry and weather cycles, including tropical monsoons that are vital for India. Moreover, widespread access to fossil fuel from the Arctic will

¹⁰ India and the Arctic // Ministry of External Affairs. Government of India. 10 June 2013.
URL: <http://www.mea.gov.in/in-focus-article.htm?21812/India+and+the+Arctic/>

¹¹ Q NO.3991 Arctic Council // Ministry of External Affairs. Government of India. 6 August 2014.
URL: <http://www.mea.gov.in/lok-sabha.htm?dtl/23837/Q+NO3991+ARCTIC+COUNCIL>

¹² Transcript of Media Briefing by Secretary (West) and Official Spokesperson (10 October 2014) // Ministry of External Affairs. Government of India. 11 October 2014. URL: <http://www.mea.gov.in/other.htm?dtl/24082/Transcript+of+Media+Briefing+by+Secretary+West+and+Official+Spokesperson+October+10+2014>

¹³ Question No.2005 Territorial Claims // Ministry of External Affairs. Government of India. 9 March 2016.
URL: <http://www.mea.gov.in/lok-sabha.htm?dtl/26494/QUESTION+NO2005+TERRITORIAL+CLAIMS>

¹⁴ Shukla A. Antony Sees Chinese Shipping Bypassing Indian Blockade // Business Standard. 28 February 2012
URL: http://www.business-standard.com/article/economy-policy/antony-sees-chinese-shipping-bypassing-indian-blockade-112022800029_1.html

delay the transfer to renewable and green sources of energy for a long time and will impede international negotiations on climate.¹⁵ Climate change, the use of new sea routes and the opening of new resource deposits will redistribute the balance of power between states and threaten the planet's fragile ecosystem. The Arctic states will be the main beneficiaries of such changes, and other countries will have to pay a high price.¹⁶

According to a number of Indian experts, the Arctic, just like the Antarctic, must be considered the common heritage of mankind.¹⁷ It is therefore important to develop a global agreement on the Arctic similar to the Antarctic Treaty banning the exploitation of Arctic resources and making it possible to preserve the pristine environment of the North.¹⁸ However, this stance is not reflected in India's official documents and is unlikely to gain public support at the state level in the near future. Despite the fact that the Arctic states have territorial disputes in the area, they all agree that the Arctic is not global commons and will not let a supranational international authority under the UN auspices be formed and take over issues related to the Arctic ecosystem. Russia as other Arctic states is strongly opposed to the application of the principle of the common heritage of mankind to the Arctic and to the consequent shift from the national level of management of this region to the supranational and global levels.

1.2. India's Research in the Arctic

India as a country paying close attention to Arctic environmental problems carries out active research in the area. In 2007, India organized its first Arctic expedition, with climate change research amongst its top priority objectives. India's Himadri Polar Station has been operating since 2008 in the Spitsbergen Island (Norway) and can accommodate up to 8 specialists.¹⁹ It is run by the National Centre for Antarctic and Ocean Research (NCAOR) located in Goa. Since 1998, the Centre has been implementing programmes of studies of the Antarctic, the Arctic, oceans and glaciers in the Indian mountains.²⁰ Permanent scientific expeditions have been set up for their exploration. The Centre employs over 60 specialists from India's 18 think tanks, including the Hyderabad Centre for Cellular and Molecular Biology, the Indian Institute of Tropical Meteorology, and several of the country's top universities.

Arctic matters are administered by the India's Ministry of Earth Sciences, to which the NCAOR is accountable. According to P.K. Bansal, who headed the Ministry

¹⁵ Shyam Saran: Why the Arctic Ocean is Important to India // Business Standard. 12 June 2011. URL: http://www.business-standard.com/article/opinion/shyam-saran-why-the-arctic-ocean-is-important-to-india-111061200007_1.html

¹⁶ Mahapatra R. Is Arctic Rush Worth It? // DownToEarth. 31 May 2012. URL: <http://www.downtoearth.org.in/coverage/is-arctic-rush-worth-it-38173>

¹⁷ Gautam P.K. The Arctic as a Global Common // IDSA Issue Brief. 2 September 2011. URL: http://www.idsa.in/system/files/IB_TheArcticasaGlobalCommon.pdf

¹⁸ Saran S. India's Stake in Arctic Cold War // The Hindu. 2 February 2012. URL: <http://www.thehindu.com/opinion/op-ed/indias-stake-in-arctic-cold-war/article2848280.ece>

¹⁹ Government of India, Ministry of Earth Sciences. Lok Sabha. Unstarred Question No. 4883. To be Answered on Wednesday, 13 August 2014. Research Stations in Arctic and Antarctica. URL: http://www.dod.nic.in/writereaddata/files/LS_US_4883_13082014.pdf

²⁰ National Centre for Antarctic and Ocean Research (NCAOR). URL: <http://www.ncaor.gov.in>

in 2011, India intends to quickly fill the gap in research on the Arctic²¹ and increase its financing: \$12 million will be allocated for those purposes by 2018.²² Moreover, Indian shipyards have already received an order for a special high-latitude research ship,²³ which will be able to take aboard over 60 researchers with appropriate equipment, as well as navigate through an ice cover up to 2m thick, and conduct year-round research operations in the Arctic, the Antarctic, and the Indian Ocean.²⁴ The ship, worth over \$140 million, is scheduled to be launched in late 2016.²⁵ This step will significantly reduce India's research costs as foreign ships previously had to be hired in Germany, Russia and Norway to support polar stations. India will also obtain more freedom in choosing areas and time for research.

India is also faced with an important task of training qualified personnel for ice class vessels, – a key challenge for the national Arctic research programme, according to Indian experts. A solution may be found through long-term planning for the training of participants in national expeditions using the resources of countries that have substantial Arctic experience.²⁶

The Ministry's research plan for 2012–2017 provides that Indian researchers will focus on the impact of global warming on the Arctic ice cap and the monsoons affecting development of Indian agriculture. They will also study the impact of the Arctic cap melting on Tibet and the Himalayas, where glaciers supplying drinking water to millions of Indians are located.²⁷ The NCAOR actively works in these areas and publishes annual detailed reports on its achievements.²⁸

1.3. India's Arctic Policy in the International Arena

As an observer to the Arctic Council India has assumed certain obligations. First and foremost, it recognises the sovereign rights of the Arctic states to the Arctic. At the same time, India has no full access to its working documents and discussions, and the scope of its financing of the Council projects may not exceed the amounts allocated by member states. The status of observer has to be confirmed every 4 years and may be suspended if the observer's activities contradict the Arctic Council's principles.²⁹ However, India may still take an active part in the six

²¹ Press Information Bureau. Government of India. Ministry of Earth Science. Indian Arctic Research Programme to Complement India's Work in Antarctica: Pawan Kumar Bansal. 3 February 2011.
URL: <http://www.pib.nic.in/newsite/PrintRelease.aspx?relid=69570>

²² India and the Arctic. 10 June 2013. URL: <http://www.mea.gov.in/in-focus-article.htm?21812/India+and+the+Arctic>

²³ Government of India. Ministry of Earth Sciences. Lok Sabha. Unstarred Question No. 1389. To be Answered on 4 March, 2015. Research in Arctic & Antarctica. URL: http://www.dod.nic.in/writereaddata/files/LS_US_1389_04032015.pdf

²⁴ India to Buy Polar Research Vessel.

URL: <http://www.worldmaritimeneews.com/archives/141676/india-to-buy-polar-research-vessel>

²⁵ Construction of Polar Research Vessel. URL: <http://www.dod.nic.in/programmes/construction-polar-research-vessel>

²⁶ Sakhuja V. Antarctica and the Icebreakers: How India Should Prepare. 1 February 2014.

URL: <http://www.cimsec.org/india-arctic/9609>

²⁷ Earth System Science Organization. Ministry of Earth Sciences. Draft Approach Paper for the 12 Five Year Plan (2012–2017). URL: http://www.dod.nic.in/sites/default/files/Draft%20Approach12th%20FIVE%20YEAR%20PLAN_0.pdf

²⁸ Annual Report 2014–2015. URL: <http://www.ncaor.gov.in/upload/annualreports/English%20-2014-15.PDF>

²⁹ India is represented in the Arctic Council by Mr. Puneet Agrawal. See: Observers // Arctic Council.

URL: <http://www.arctic-council.org/index.php/en/about-us/arctic-council/observers>

working groups of the Council, in particular, charged with monitoring pollution, conservation of the flora and fauna, responding to emergencies and economic cooperation. Taking into account its experience in the Antarctic and Himalayas, India can make a significant contribution to the activities of those divisions.³⁰

India actively promotes bilateral cooperation with the Arctic states. For instance, over the last three years, top Indian officials have visited practically all the member states of the Arctic Council. India's Prime Minister Narendra Modi visited Russia (December 2015), the US (September 2015), and Canada (April 2015), and India's President Pranab Mukherjee visited Sweden (June 2015), Russia (May 2015) and Finland and Norway (October 2014), where a video conference with researchers of the Indian Himadri Polar Station was held.³¹ A meeting with the Icelandic President Ólafur Grimsson, who visited India in April 2013, was also held.

According to experts, India has to be very pragmatic in the Arctic: it should expand bilateral cooperation with the Arctic states with a view to become a full member of the Arctic Council, develop a comprehensive Arctic strategy and carry out a large-scale evaluation of the Arctic natural resources. Any possible technological gap between India and the leading Arctic countries should be eliminated as soon as possible. Active participation in Arctic-related affairs also requires India's permanent research beyond the Arctic Circle.³² A special think tank to deal with political, diplomatic and strategic studies on the Arctic should also be founded.

Existing resources for political and economic studies of the Arctic development are obviously inadequate. Vijay Sakhujia, director of National Maritime Foundation,³³ former employee of the Indian Council of World Affairs³⁴ is currently involved in these studies.³⁵

The Indian expert community has also proposed to appoint an ambassador for Arctic affairs and form a separate division in the Ministry of External Affairs of India responsible for the country's Arctic policy.

Indian experts often accuse the Arctic states of the region's militarisation and deployment of nuclear weapons and nuclear-powered combat systems in the area.³⁶ Technological emergencies in the region may cause irreparable environmental damage, therefore India should initiate the demilitarisation of the Arctic and, first and foremost, its denuclearisation, as well as suggest declaring

³⁰ Gupta A. India's Gains from Arctic Council // The New Indian Express. 31 July 2013.

URL: <http://www.newindianexpress.com/columns/Indias-gains-from-Arctic-Council/2013/07/31/article1709960.ece>

³¹ Transcript of Media Briefing by Secretary (West) on Hon. President's Ongoing Visit to Norway // Ministry of External Affairs. Government of India. 14 October 2014. URL: <http://www.mea.gov.in/media-briefings.htm?dtl/24090/Transcript+of+Media+Briefing+by+Secretary+West+on+Hon+Presidents+ongoing+visit+to+Norway>

³² Sakhujia V. The Arctic Council: Is There a Case for India? // Voice of India.

URL: <http://www.voiceofindia.com/in-focus/the-arctic-council-is-there-a-case-for-india/996>

³³ National Maritime Foundation. URL: <http://www.maritimeindia.org>

³⁴ Indian Council of World Affairs. URL: <http://www.icwa.in/index.htm>

³⁵ Indian Council of World Affairs. Vijay Sakhujia, PhD. URL: http://www.icwa.in/director_research.html

³⁶ Gautam P.K. The Arctic as a Global Common // IDSA Issue Brief. 2 September 2011.

URL: http://www.idsa.in/system/files/IB_TheArcticasaGlobalCommon.pdf

the Arctic a nuclear–weapons–free zone.³⁷ However, this idea seems hardly likely to be implemented, since the Arctic plays an important role in ensuring national security of two leading nuclear powers – Russia and the US.

Indian experts believe that development of the Arctic will change the world's geopolitical map, and that developing countries, such as India and China, must make this issue a priority on the international agenda.³⁸

India should use all international platforms to promote cooperation in the Arctic, BRICS being the most appropriate option for this purpose. Polar research may also be put on the agenda of the Indian and Pakistani dialogue and contribute to the atmosphere of mutual trust between the countries.³⁹ Proposals have also been made to promote global management of the Arctic through international fora, primarily the G20 summit meetings.⁴⁰

India (represented by NCAOR) has been a member of the non–governmental Asian Forum for Polar Sciences since 2006. Founded in 2004 on the initiative of the Republic of Korea, the Forum brought together five Asian countries in addition to India: China, Japan, the Republic of Korea, Malaysia, and Thailand. The organisation is designed to promote scientific cooperation among Asian countries in researching the North and South Poles.⁴¹ It includes 6 working groups implementing joint research projects (for example, research into the causes of the Arctic ice cover melting and the impact of melting polar ice caps on Asian monsoons). These groups report to the Annual General Meeting of the Forum. The most recent meeting was held in autumn 2015.

China's growing presence in the region is a cause for concern for India. India pays close attention to Beijing's actions. Indian specialists consider China to be its direct competitor, including in matters related to the Arctic.⁴² The struggle between India and China for the energy and bioresources of the Arctic Ocean and bilateral relations with the Arctic states, primarily Russia, may be stepped up in the future.⁴³

Retired Indian Navy officer Neil Gadihoke estimates that the opening of the Arctic and its militarisation will force the US to focus its strategic attention on this region, reducing the presence of American troops in the Indian Ocean. China will benefit from this situation and will try to strengthen its positions in the Indian

³⁷ Sakhuja V. Indian Navy: Developing "Arctic Sea Legs" // Society for the Study of Peace and Conflict. 15 October 2012. URL: http://www.sspconline.org/opinion/IndianNavyDevelopingArcticSeaLegs_15102012

³⁸ Saran S. India's Stake in Arctic Cold War // The Hindu. 2 February 2012. URL: <http://www.thehindu.com/opinion/op-ed/indias-stake-in-arctic-cold-war/article2848280.ece>

³⁹ Sakhuja V. India and the Arctic: Beyond Kiruna // Indian Council of World Affairs. Policy Brief. URL: <http://www.icwa.in/pdfs/PBIndiaandtheArctic.pdf>

⁴⁰ Saran S. Why the Arctic Ocean is Important to India: Developments in the Arctic Ocean will Redraw the Geopolitical Map of the World // Business Standard. 12 June 2011. URL: http://www.business-standard.com/article/opinion/shyam-saran-why-the-arctic-ocean-is-important-to-india-111061200007_1.html

⁴¹ The Asian Forum for Polar Sciences. URL: <http://www.afops.org/m11.php>

⁴² Das J.P. India and China in the Arctic // Foreign Policy Journal. 24 July 2013. URL: <http://www.foreignpolicyjournal.com/2013/07/24/india-and-china-in-the-arctic>

⁴³ Sakhuja V. China and India Compete for Energy in the Arctic // Indian Council of World Affairs. View Point. URL: http://www.icwa.in/pdfs/vp_chinaindiacompete.pdf

Ocean with possible contribution of Pakistan, building in cooperation with China a deep water port at Gwadar capable of receiving Chinese Navy ships.⁴⁴

Moreover, China is diversifying the routes of supply of necessary hydrocarbons, part of which will go along the Northern Sea Route.⁴⁵ Beijing also has large-scale plans for creating a transport corridor through Pakistan.⁴⁶ Implementing these projects China will significantly decrease its dependence on transport corridors passing near Indian shores. In case of conflict with Beijing India will not be able to block these routes, so China will be able to act tougher with respect to India and other countries of South and South East Asia.

1.4. Prospects for Russia–India Cooperation in the Arctic

India is interested in strengthening cooperation with Russia in research and development of the Arctic both in the framework of the Arctic Council and on bilateral basis. Joint statement following a visit of India's Prime Minister Narendra Modi to Russia in December 2015 emphasised this area of collaboration. The parties stressed the importance of joint activities within the Arctic Council and pointed to the prospects of joint research in the Arctic, including in the framework of the Russian Research Centre in the Spitsbergen Archipelago.⁴⁷

Indian specialists also find it necessary to expand cooperation with Russia. Sanjay Chaturvedi, Professor of Panjab University, calls the Arctic a dialogue territory, a region of mutual trust, where cooperation will benefit the entire world. According to his initiative, Russia, India, and other Asian countries should create a joint polar research station in the Arctic. In his opinion, "all Asian countries will benefit if Russia acts as a teacher that can share its knowledge with other countries".⁴⁸

Russia is also referred to as "India's ticket to the Arctic energy riches".⁴⁹ Collaboration with Russia is the easiest way for India to ensure reliable supplies of energy resources from the Arctic region. Long-standing connections with Russia give India an advantage over other countries willing to enter the Russian energy market. Russia can make a crucial contribution to India's energy security and, from this perspective, plans for Indian and Russian energy holdings to exploit Arctic resources are quite promising.⁵⁰

⁴⁴ Arctic Yearbook 2013. URL: <http://www.arcticyearbook.com/2013-10-01-09-03-59>

⁴⁵ Shukla A. Antony Sees Chinese Shipping Bypassing Indian Blockade // Business Standard. 28 February 2012. URL: http://www.business-standard.com/article/economy-policy/antony-sees-chinese-shipping-bypassing-indian-blockade-112022800029_1.html

⁴⁶ Popadiuk O. Friendship is Harder than Steel // Russian International Affairs Council. 22 January 2016. URL: http://www.russiancouncil.ru/en/inner/?id_4=7133#top-content

⁴⁷ Joint Statement between the Russian Federation and the Republic of India: Shared Trust, New Horizons // Ministry of External Affairs. Government of India. 24 December 2015. URL: http://www.mea.gov.in/bilateral-documents.htm?dtl/26243/Joint_Statement_between_the_Russian_Federation_and_the_Republic_of_India_Shared_Trust_New_Horizons_December_24_2015

⁴⁸ India and Singapore Will Help Russia to Develop the Arctic. 4 October 2016. URL: http://www.xn--b1ae2adf4f.xn--p1ai/economics/logistics/18630-arktika_transtec.html (in Russian).

⁴⁹ Taneja K. Moscow: India's Ticket to the Energy Riches of the Arctic // Pragati. The Indian National Interest Review. 4 April 2014. URL: <http://www.pragati.nationalinterest.in/2014/04/moscow-indias-ticket-to-the-energy-riches-of-the-arctic>

⁵⁰ Sakhuja V. India and the Arctic: Prospects for Collaboration with Russia // Valdai Club. 10 January 2014. URL: https://www.valdaiclub.com/opinion/highlights/india_and_the_arctic_prospects_for_collaboration_with_russia

Existing difficulties in relations between Russia and the West may turn out to be the right occasion for developing Russian–Indian cooperation, primarily in joint trade and economic projects in the Russia–controlled Arctic. Russia and India have remarkable experience of cooperation in shipbuilding; moreover, crews of Indian Arctic vessels might be trained in Russia, including for rescue operations.⁵¹

India intends to grow its presence in the Arctic by increasing its investments into promising projects and developing its climate research. Russia and India may act as allies in this field, since Russia is interested in India's participation in the development of the natural resources of the Russian Arctic, particularly amidst Western sanctions. Cooperation with India will also allow Russia to considerably enhance its export capacities, extending the geography of its supplies, diversifying its sales markets, and partially compensating its losses due to external limitations. Indian partners lack critical expertise in the development of shelf deposits under severe climate conditions, but the Russian oil industry urgently needs an additional source of investments.

Russia and India have already achieved some results in joint business projects. Rosneft and Indian company ONGC Videsh Ltd signed an agreement for the purchase of 15% shares in Vankorneft and are holding negotiations on increasing this share in the future. There are plans to launch LNG supplies from the facilities of the Arctic SPG–2 plant using the Gydan Peninsula and the Gulf of Ob fields.⁵² The negotiations are stumbling as Indian investors have fears about difficulties of developing fields in the Arctic zone, primarily environmental risks, high costs of projects, and long investment payback periods, as well as current low prices for energy resources.⁵³

1.5. Conclusions

India is taking its first steps in the Arctic area. The country is gradually building up the necessary infrastructure both for conducting research in the Arctic (construction of a polar station, regular expeditions, acquisition or development of required equipment) and for strengthening its political, trade and economic ties with the Arctic states (intensive bilateral contacts, newly acquired status of an observer to the Arctic Council, appointment of an ambassador for Arctic affairs, first commercial contracts in the Arctic zone).

India's policy in the Arctic suffers from the lack of a detailed strategy that would outline India's key priorities as well as political, economic, and scientific tasks in the Arctic. However, formulating such a strategy appears premature, mostly because India has not identified its interests and priorities in the region yet.

⁵¹ Sinha U.K. India Must Take Advantage of Moscow's Leverage in the Arctic Region // Hindustan Times. 9 December 2014. URL: <http://www.hindustantimes.com/ht-view/india-must-take-advantage-of-moscow-s-leverage-in-the-arctic-region/story-KmCi7zclGKHlludlvGmD9l.html>

⁵² Joint Statement between the Russian Federation and the Republic of India: Shared Trust, New Horizons // Ministry of External Affairs. Government of India. 24 December 2015. URL: http://www.mea.gov.in/bilateral-documents.htm?dtl/26243/Joint_Statement_between_the_Russian_Federation_and_the_Republic_of_India_Shared_Trust_New_Horizons_December_24_2015

⁵³ Adavikolanu A.V. Opinion: Should India Invest in Arctic Oil? // Science Nordic. 10 December 2013. URL: <http://www.sciencenordic.com/opinion-should-india-invest-arctic-oil>

**ASIAN PLAYERS IN THE ARCTIC:
INTERESTS, OPPORTUNITIES, PROSPECTS**

Unlike in climatology and oceanography, India has not yet developed fully-fledged Arctic political and economic studies. Those studies are carried out by a limited number of specialists, for whom the Arctic is not a key area of expertise. Further discussion in the Indian expert community of the issues of Arctic development is supposed to give momentum to India's entire Arctic programme.

2. China's Strategy in the Arctic

The significance of the Arctic in global geopolitical and economic processes has been growing lately due to the climate change and the emerging opportunities for using natural resources and communications. Chinese researchers and experts are paying close attention to this matter.⁵⁴ So far, China has no official strategy in the region, but analysis of a number of documents allows for understanding of the key areas of the Chinese government's policy and future plans in the Arctic.

Beijing's growing interest in the Arctic region is by no means accidental: significant changes have taken place in this area over the recent decades. Global climate change is opening the way to the development of new resources, and the Northern Sea Route (NSR) and Canadian Northwest Passage (NWP) are increasingly regarded as promising routes capable of changing the entire global trade architecture. China is primarily interested in the economic aspects of the Arctic development including investment and trade, as well as in new geopolitical opportunities for the state's economic expansion.

2.1. China's Interests in the Arctic

China is enhancing its presence in the Arctic, and the following factors underpin its interest: mineral resources deposits, new sea routes and the need for scientific research. The first two factors are clearly a priority but the third one provides legitimacy for China's growing presence in the area.

Beijing is investing into prospecting and exploration, as well as taking active part in developing foreign oil fields by offering the support of both Chinese technology and capital. China's goal is to acquire foreign oil assets and develop oil fields in various regions around the globe. Currently the PRC imports oil and gas from over 30 countries; 56% of Chinese oil imports come from the Middle East, 27% – from Africa; 13.5% – from Asia and the Asia Pacific; and 3.5% – from Latin America.⁵⁵

In this context Chinese interest in Arctic oil and gas resources is quite understandable. However, due to complicated natural and climatic conditions the actual development of these resources is still in the future not only for China, but for the Arctic countries as well.

Chinese companies have also demonstrated obvious interest in other mineral resources in the Arctic region, mainly in the Scandinavian polar areas. This pertains mostly to Greenland (part of Denmark) with its rich mineral resources capacities. For example, London Mining – a company with a Chinese stake (an investment held by Sinosteel and China Communications Construction Corp) – planned to reach an annual production level of up to 15 million tonnes of processed iron-ore pellets before the end of 2015 at its Isua site. Greenland Minerals and Energy

⁵⁴ Li Zhenfu. Analysis of Chinese Strategy of Sea Routes in the Arctic // Zhongguo Ruanxexue. 2009. # 1. P. 1–7.

⁵⁵ PRC Foreign Energy Strategy. Cit. ex: Izimov R.Y., Kaliaskarova Z.K. China's Global Energy Policy and Central Asia's Position (part 2) // Sauran Information Analytical Centre. 2 November 2015.
URL: <http://cc-sauran.kz/rubriki/politika/139-globalnaya-energeticheskaya-kitaya-2.html> (in Russian).

announced that starting from 2016 it would be able to produce up to 20% of the global supply of rare-earth metals, as well as significant quantities of Uranium, at its Kvanefjeld deposit.⁵⁶

China describes itself as an expanding economy, but not an Arctic coastal country. This serves as a basis for gaining access to Arctic sea routes (NSR and NWP), which can significantly decrease the time and money spent to transport cargoes and are relatively safe. The transit of Chinese export cargoes via NSR from Dalian, Qingdao, as well from the ports of Southern Primorye of Russia and Democratic People's Republic of Korea may significantly reduce the delivery time for container freight bound to Europe. Rerouting its trade patterns via NSR may allow China to save from \$60 billion to \$120 billion per year.⁵⁷ In addition, the ice cover on the 7,000 km route has shrunk by 1/3 over the last 10 years, extending the navigation period.⁵⁸

Expanding maritime transportation in the Arctic Area will allow for improving China's production structure and provide an incentive for the reactivation of old industrial base in the North East of the country, specifically the transportation system of the Tumannaya River. "Hunchun district, located in the valley of the river, will develop into something comparable to Singapore and may turn into an international navigation centre."⁵⁹

China started expressing interest in the Arctic in mid-1980s, mainly in ecology and research. The first attempts to formulate China's official Arctic strategy started in 2008, as the country moved towards a systematic study of the Arctic problems. Since 2009, Chinese researchers have shifted from studying natural and climate-related matters to the assessment of commercial, political and military implications of the development of the Arctic for China.⁶⁰ Their key conclusions in the Arctic area are aligned with Chinese geopolitical and economic strategy.

2.2. China's Arctic Policy Framework

China has not yet published any strategic document or statutory act pertaining to its Arctic policy.⁶¹ However, China's policy with respect to the Arctic correlates with the fundamentals of the strategy for the "peaceful rise" of China and its focus on turning into a global maritime power, as announced in 2012 at the 18th

⁵⁶ Erickson A. China's New Strategic Target: Arctic Minerals // The Wall Street Journal. 18 January 2012. URL: <http://www.blogs.wsj.com/chinarealtime/2012/01/18/china%E2%80%99s-new-strategic-target-arctic-minerals>

⁵⁷ Kupriyanov A. Asian North. What Do New Players Need in the Arctic // Lenta.ru. 13 April 2015. URL: <http://www.lenta.ru/articles/2015/04/10/arctic> (in Russian).

⁵⁸ Barannikova A. Russia and China in the Arctic: Problems and Prospects // Information and Analytical Periodical Sluzhu Otechestvu. 22 June 2014. URL: <http://www.sluzhuotechestvu.info/index.php/gazeta-sluzhu-otechestvu/2014/maj-2014/item/1251-россия-и-китай-в-арктике-проблемы-и-перспективы.html> (in Russian).

⁵⁹ Li Zhenfu. China Needs Big Arctic Strategy // Inosmi.ru. 12 March 2015. URL: <http://www.inosmi.ru/fareast/20150316/226900695.html> (in Russian).

⁶⁰ Labyuk A.I. Chinese Interests in the Arctic // By the Map of the Pacific. Information and Analytical Bulletin. 2014. # 36 (234). The Arctic in Contemporary Foreign Policy: Area's Position in National Foreign Policy Interests (Round Table Materials). P. 39. URL: <http://www.ihafe.org/files/pacific-ocean-map/36.pdf>

⁶¹ Details about legal framework for Chinese Arctic policy see in Xiu Guangmiao, Chinese Interests and Policy in the Arctic: History, Legal Framework and Implementation // Mirovaya ekonomika i mezhdunarodnye otnosheniya [Global Economy and International Relations]. 2016. # 2, vol. 60. P. 52-62.

Congress of Chinese Communist Party. According to Chinese researchers, Beijing needs to pay close attention to the Arctic area taking account of the China's geopolitical position and its strengthening role on the international arena.⁶² In order to implement the Big Arctic Strategy successfully, China should adhere to the open development model and continuously build up its cumulative power.⁶³ The comprehensive national power concept of China has been analysed in greater detail by Vladimir Portyakov.⁶⁴ According to some foreign researchers, China's Arctic strategy is closely linked to its naval doctrine, and has had a significant impact on transformation of that doctrine from a regional into a global one in the context of the UN Convention on the Law of the Sea (UNCLOS).⁶⁵

China has not formulated its official strategy yet; however, the available strategic documents and studies on Arctic matters underlie the key three concepts of developing the region.

The first one is the concept of the internationalisation of the Arctic. Chinese researchers actively advocate the idea of including the Arctic in the common heritage of mankind, especially the Northern Sea Route (Russia) and Northwest Passage (Canada). Beijing expects coastal countries of the Arctic Ocean to define their continental shelf borders with account of international community interests based on the key principles of international law of the sea.⁶⁶

Chinese scholars are also actively promoting the idea of the geographical proximity of China to the Arctic area. According to it, such geographical proximity of China in comparison to other "non-Arctic" countries justifies its claim for special rights and interests in this region different from those of other "non-Arctic" countries. This concept underpins Chinese economic interests in the development of shipments via NSR.

The Northern Silk Road concept also underpins China's foreign policy with respect to the Arctic. The theory is based on the idea that in the context of global reorganisation and the shifting of world geopolitical centres, control over the Arctic can entail control over the entire global economy and access to global markets. Chinese economists refer to both Arctic transportation corridors (NWP and NSR) as Maritime Silk Roads for supplying Chinese goods to Europe and to North America.⁶⁷

Chinese research centres and think tanks are actively studying the political, legal and military implications of the Arctic area. The programme for analysing Arctic

⁶² Strategic Value of the Arctic and Study of China's National Interests. P. 123.
URL: <http://www.xzbu.com/4/view-4113029.htm> (in Chinese).

⁶³ Li Zhenfu. China Needs Big Arctic Strategy // Inosmi.ru. 12 March 2015.
URL: <http://www.inosmi.ru/foreast/20150316/226900695.html> (in Russian).

⁶⁴ For more information on comprehensive national power of China see Portyakov V.Y. Comprehensive National Power of China: Approaches to Evaluation, Structure, Dynamics, Outlook // China in Global and Regional Policy. 2014. Issue 19, vol. 19.

⁶⁵ Cassotta S., Hossain K., Ren J., Goodsite M.E. Climate Change and China as a Global Emerging Regulatory Sea Power in the Arctic Ocean: Is China a Threat for Arctic Ocean Security? // Beijing Law Review. 2015. # 6. P. 199–207. P. 199.
URL: <http://www.scirp.org/journal/PaperInformation.aspx?PaperID=60014>

⁶⁶ Wang Juntao. Geopolitical Strategy of China in the Arctic // St. Petersburg State Polytechnical University Polytechnic Journal. Humanities and Social Sciences. 2015. # 1 (215). P. 54–56.

⁶⁷ Ibid.

area development indicators and China's role in this region has been underway since 2010. Since 2011–2012 similar programmes of Arctic geopolitical studies and studies of the political, economic and legal aspects of Arctic navigation (planned until 2015) have been in progress.

Rao Long, PhD in Law, research fellow of the Institute for Global Governance Studies at the Shanghai Institutes for International Studies, stated at the International Forum “Arctic Policy in 21st Century” on 24 April 2015, that the official document titled White Paper of China's Arctic Policy was to be published within a year.⁶⁸ The announced White Paper of China's Arctic Policy is most likely designed to formalise the PRC's strategy in the Arctic in a public document, openly setting the strategic goals and objectives of the country in this area. The White Paper format is “softer” than strategy, and this choice is probably to allay the fears of the “Arctic Five” about China's activities in the region. At the same time, one cannot exclude the development of a stronger option of China's Arctic strategy “for domestic use” as a closed part and/or an annex of the White Paper.

China does not have a specific government authority in sole charge of Arctic matters. Studying and developing Arctic and Antarctic areas is considered polar issues, and the main government authority in charge of all polar issues (from research to strategic analysis) is State Oceanic Administration (SOA). The Chinese Arctic and Antarctic Administration employs about 40 people and operates within SOA. It supervises all polar matters and is administratively responsible for Chinese polar expeditions. This Administration comprises the General Affairs Division, Policy and Planning Division, Operation and Finance Division, Science Programme Division, International Cooperation Division, Winter Training Base in Heilongjiang, and two representative offices with Chinese Embassies in Chile and Australia.⁶⁹

The Chinese Arctic and Antarctic Administration performs the following functions:

- 1) Developing national strategy, policy and plans for Chinese studies and development of the Arctic and Antarctic,
- 2) Drafting laws, regulations, norms and rules pertaining to Chinese polar expeditions and other polar activities of PRC,
- 3) Organising, coordinating and supervising Chinese research in polar areas,
- 4) Organising and managing infrastructure and resources of Chinese Arctic and Antarctic expeditions,
- 5) Organising and coordinating the stocking and deployment of Chinese polar expeditions, and administering the Winter Training Base and representative offices abroad,
- 6) Organising and participating in international cooperation, interaction with foreign national polar programmes,

⁶⁸ Discussion in St. Petersburg State University on Special Role of the Arctic// School of International Relations of St. Petersburg State University. 24 April 2015. URL: <http://www.sir.spbu.ru/news/?id=1570> (in Russian)

⁶⁹ Cit. ex: Jakobson L. and Peng J. China's Arctic Aspirations // SIPRI Policy Paper # 34. November 2012. P. 13–14.

- 7) Popularizing research and Chinese polar expeditions,
- 8) Implementation of other objectives set by SOA.⁷⁰

The SOA is accountable to the Ministry of Land and Resources. It coordinates the activities of the Chinese Advisory Committee for Polar Research, which is comprised of experts from 13 Chinese ministries and agencies, including the Ministry of Foreign Affairs, the National Development and Reform Commission under the PRC State Council, the Ministry of Education, the Ministry of Science and Technology, the Ministry of Industry and Information Technology, the Ministry of Finance, the Ministry of Land and Resources, the Ministry of Health, the Chinese Academy of Sciences, the China Earthquake Administration, the Chinese Meteorological Administration, the National Natural Science Foundation, the National Administration of Surveying, Mapping and Geoinformation, as well as the People's Liberation Army General Staff Department.⁷¹

The State Council of the PRC, the highest government body, coordinates the financing of all polar activities. The National Development and Reform Commission under the PRC State Council controls the financing of construction of polar facilities and vessels, in consultations with the Ministry of Finance, the Ministry of Science and Technology and the National Natural Science Foundation. The SOA is the second-tier government authority; it approves and finances Arctic research projects and expeditions. The Ministry of Environmental Protection finances and carries out international cooperation between China and the Arctic states in climate change and environmental management.⁷²

2.3. China's Research in the Arctic

The Polar Research Institute of China is the main research institution of the country on polar matters. It is subordinate to the Chinese Arctic and Antarctic Administration and employs around 120 staff. The Institute is in charge of Chinese polar expeditions and research stations in the Arctic and Antarctic regions, as well as of the icebreaker Xue Long. In 2009, the Institute established a Strategic Research Department headed by Zhang Xia, a distinguished Chinese specialist in Arctic geopolitics. This Department is in charge of planning, coordination and financing of Chinese academic institutions and individual researchers engaged in Arctic-related social studies. Overall, the Polar Research Institute of China is a liaison between political circles and the academic community in the PRC.⁷³

In the Shanghai Institutes for International Studies (SIIS), one of the most prestigious Chinese research centres on international relations, researchers of the Centre for Marine and Polar Studies, the Institute for Global Governance Studies and the Centre for Russian and Central Asian Studies are engaged in the government-funded research of global governance in the Arctic, cooperation between China and the Arctic countries and Russia's Arctic strategy.

⁷⁰ Chinese Arctic and Antarctic Administration. URL: <http://www.chinare.gov.cn/en>

⁷¹ Jakobson L. and Peng J. Op. cit. P. 13–14.

⁷² Ibid.

⁷³ Ibid.

The China Institute for Marine Affairs was established in 1987 within the State Oceanic Administration (SOA) and is the key research centre for maritime policy, economics and international maritime law in China. Being a SOA internal think tank, the Institute is engaged in studying legal aspects of Chinese polar policy, however, it has not created a special polar affairs department yet.

Chinese Academy of Sciences (CAS) is part of the government hierarchy in China at the Ministry level. Several CAS research institutes are engaged in studies pertaining to Arctic environment and climate change, including: Institute of Atmospheric Physics, the Institute of Geographical Sciences and Natural Resources Research, the Institute of Oceanology and others.

The Chinese government also provides funding for Arctic studies centres at various universities to conduct research in several fields. It allows for university-based researchers to publish the results of their Arctic studies and to participate in developing internal (confidential) documents with recommendations on Arctic policy.⁷⁴

Universities in the coastal cities of China are the ones that carry out most geopolitical studies pertaining to the Arctic. One of them is Dalian Maritime University engaged in Arctic shipping and logistics research (headed by Li Zhenfu). The Ocean University of China is the leading centre in oceanography and fishing (in 2010 it established a Research Centre for Polar Law and Politics).

A number of Political Science professors in Shanghai universities participate in government-funded projects on Arctic geopolitical matters: Chen Yugang and his team at Fudan University are studying international cooperation in the Arctic area and China's Arctic strategy; Pan Min and Wang Chuanxing from Tongji University are studying Arctic climate change and its consequences for China's safety; Shanghai University of Political Science and Law's researchers are interested in several matters from Arctic climate change to Chinese-Canadian cooperation prospects in the Arctic affairs.⁷⁵

The above-listed institutes and research centres are to different extent engaged in fundamental and applied studies in the following areas:

- 1) natural resources of the Arctic, their prospecting, exploration and technologies for their commercial development
- 2) sea routes and shipping in the Arctic area
- 3) Chinese Arctic expeditions
- 4) participation in international discussions of scholars and experts on Arctic matters
- 5) the Arctic in international law, China's international legal activities to clarify and formalize legal status of the Arctic
- 6) policy and diplomacy pertaining to the Arctic and polar countries, identifying partner countries for Arctic development

⁷⁴ Jakobson L. and Peng J. Op. cit. P. 14–16.

⁷⁵ Ibid.

7) military strategic situation, prospects and formats of China's military presence in the Arctic

8) general strategy for PRC's activities in the Arctic.⁷⁶

Chinese research centres are increasingly active in international Arctic network studies. Chinese universities and think tanks took part in Chinese–Russian Arctic Forum (2012), Chinese–American Social Sciences Forum (2015). Polar Research Institute of China jointly with some foreign research centres launched a website on polar and oceanic studies.⁷⁷

2.4. China's Arctic Policy in the International Arena

Chinese researchers view Chinese Arctic policy as an element of China's foreign policy. The fundamental principles are as follows: “In the spirit of peaceful development of the Arctic for the benefit of mankind and on the basis of mutual respect and enhanced understanding and trust, China will develop a normal relationship of win–win cooperation with the Arctic countries and the international community in the common endeavor to maintain and promote peace, stability and sustainable development in the Arctic, so as to make the Arctic part of the harmonious world.”⁷⁸

The China's Ministry of Foreign Affairs takes the lead in international cooperation in the Arctic area. Within the framework of bilateral and multilateral cooperation on Arctic matters the Department of Treaty and Law of the Ministry drafts official statements on Arctic matters and coordinates the activities of Chinese representatives at the Ministerial Meetings of the Arctic Council. The Senior Arctic Official is the China's Vice Minister of Foreign Affairs. Ministerial officials of lower levels participate in various working meetings of the Arctic Council as special observers.⁷⁹

In future more active involvement of China in various Arctic activities in all areas is expected. However, Beijing is not inclined to change the existing “rules of the game” in the Arctic and most likely will act cautiously based on these rules. China respects international agreements on the Arctic, rules and procedures established by the Arctic Circle members. As to developing new international rules for the Arctic, China, just like other non–Arctic countries, is keen to enhance its involvement, but only in keeping with the existing rules and solely for the purposes of managing the Arctic for common benefit.⁸⁰

Wang Chuanxing, Deputy Director of the Centre for Polar and Oceanic Studies, described this approach in detail, emphasising that future China's participation

⁷⁶ Karlusov V.V. The Arctic in the System of Beijing Global Priorities: a View from Russia // MGIMO-University Newsletter. 2012. # 5 (26). P. 24–32 (in Russian).

⁷⁷ In Chinese. URL: <http://www.chinanews.com/mil/2015/09-18/7531005.shtml>

⁷⁸ Tang G. Arctic Issues and China's Stance // CIIS. 4 March 2013. URL: http://www.ciis.org.cn/english/2013-03/04/content_5772842.htm

⁷⁹ Jakobson L. and Peng J. Op. cit. P. 13–14.

⁸⁰ Kai S. China and the Arctic: China's Interests and Participation in the Region // East Asia-Arctic Relations: Boundary, Security and International Politics. Paper # 2. November 2013. P. 6.

in Arctic affairs will be focused on three major issues: finding the balance between the rights and responsibilities of the Arctic Council member states, the democratisation and openness of the Arctic Council, and promoting multilateral consultations and bilateral partnerships.⁸¹

China as a non-Arctic state is working in the capacity of an observer to the Arctic Council, as based on the principles reflected in the “Arctic Council Observers’ Criteria” adopted in 2011. They include respect of sovereignty, sovereign rights and jurisdiction of the Arctic Council member states by non-Arctic countries; supporting the implementation of the Arctic Council objectives (advancement of cooperation, interaction and coordination between member states); respect of the culture, traditions and traditional lifestyle of indigenous communities of the North, etc.⁸²

2.5. China’s Icebreaker Fleet

China has accumulated significant resources for scientific studies and research expeditions in the Arctic region. In particular, Chinese icebreaker Xue Long (“Snow Dragon”), built according to a Soviet design, carried out several research expeditions and in 2010 reached the North Pole. Starting from 2004, polar station Huang He is permanently operating on Spitsbergen. According to the experts on the Northern Sea Route, “in August of 2012, Xue Long as part of the fifth Arctic expedition of the PRC sailed from the Chukchi Sea to the Barents Sea, and then turned to the Norwegian Sea – this was the first ever passage of a Chinese ship via NSR. In China, they called it the ‘opening of the sea route from Asia to Europe’.”⁸³

Specialists identify Xue Long as a vessel of Vitus Bering class, built at Kherson Shipyard, which is not a classic icebreaker, but rather a supply ship of reinforced ice class. In 1992, the naval authority – original purchaser of the ship, was not able to cover the increased building costs and revoked the order, which was at that time 83% ready. China agreed to purchase the unfinished ship and complete the construction using its own resources. One year later the ship passed the sea trials and was ready for ice navigation.

Xue Long has a 21,000-tonne displacement and heliport deck capable of receiving heavy helicopters. The ship does not need special mooring equipment and is capable of delivering cargoes to any type of shore and even to the ice fringe. Operating Xue Long allowed China to start training of its own specialists for the ice-breaking fleet. In 1990s Ukrainian shipmasters supervised the drills of Chinese crews, but now China has a team of domestic specialists available, and is ready to implement specific pilotage projects. Experts believe that China trained its own shipmasters for the ice-breaking fleet.

In addition, China is building its second icebreaker with a cost of over €5 million.

⁸¹ Official Status of Observer State: China Needs to Thoroughly Study the Arctic // Renmin Ribao. 16 May 2013.
URL: <http://www.russian.people.com.cn/95460/8246987.html> (in Russian)

⁸² Dmitrieva T. “Chinese Factor” of the Northern Sea Route // Morskoy Flot. 2013. # 3.
URL: <http://www.morvesti.ru/tems/detail.php?ID=23735> (in Russian)

⁸³ Ibid.

Its launch is expected in 2016. The new ship will be fitted with modern research equipment for seasonal polar and marine geology studies, gravitational, magnetic and seismic research, and climate change monitoring.

The new ship will take on the Xue Long mission in difficult ice conditions; hosting a heliport deck and up to 90 people. The ship's length will be over 120m, with a maximum width of 22.3m, and a water draught of 8.5m. It will be capable of navigating in ice 1.5m thick at a speed of 2–3 knots per hour.

According to the Military Academy of the Chinese People's Liberation Army, China has plans to use nuclear vessels for polar studies. The major Chinese shipbuilding company China Shipbuilding Industry Corp. announced its plans to start developing the technology for building nuclear vessels for polar studies. According to sources, Chinese government allocated financing to one of the Corporation's research centres for designing vessels with nuclear engines.⁸⁴

China is actively working at building reinforced vessels to prolong the navigation time in the Arctic irrespective of climate conditions and ice melting time.

In future, the Chinese ice-breaking fleet may surpass the Canadian and the US fleets put together.

2.6. Prospects for Russia–China Cooperation in the Arctic

China's growing interests in the Arctic bring new opportunities and new challenges for Russia, which should be thoroughly calculated when developing Russian Arctic strategy.

Anton Vasiliev, Ambassador Extraordinary and Plenipotentiary of the Russian Federation to Iceland, and the former Representative of Russia in the Arctic Council, emphasised that the “Chinese factor” in the development of the Arctic in general and the Northern Sea Route in particular was of interest to Russia. Firstly, it is connected with the fact that China is a broad market for Russian hydrocarbons planned for production in the NSR area; and secondly, both countries are interested in developing the NSR transit, which is profitable mainly for European and East Asian countries.⁸⁵

Russian–Chinese interaction on Arctic development is an integral element of Russian–Chinese relations of comprehensive partnership and strategic cooperation. Chinese researchers emphasise that “major non–Arctic countries such as China and major Arctic countries such as Russia are bound to develop cooperation in the Arctic. This is necessary not only for mutual development, but also to respond to external challenges and threats, and to implement efficient management in the Arctic.”⁸⁶

Chinese researchers mention the creation of the US anti–ballistic missile system

⁸⁴ Ibid.

⁸⁵ Ibid.

⁸⁶ Cooperation of China and Russia in the Arctic in the Context of their National Interests // Northeast Asia Forum. 2014. # 6. P. 32. URL: <http://www.hprc.org.cn/gsyj/wjs/gjj/201505/P020150515558623271346.pdf>

in Alaska and space surveillance and tracking system in the Arctic as such challenges and threats.⁸⁷

However, one should be realistic about China's activities in the Arctic in the context of Russian–Chinese relations. According to Article 234 of the Convention on the Law of the Sea (UNCLOS), Russia (just like Canada) as a coastal state is entitled to enact laws on shipping and environmental management in the ice-covered areas. China as a prospective participant of cargo transit is advocating the freedom of shipment in the polar waters and challenging navigation rules in the 200-mile exclusive economic zone established by Russia and Canada.⁸⁸ In particular, China insists on the revision of the Russian tariff policy for icebreakers using the NSR. According to China, high tariffs may significantly decrease any commercial benefits of this route. China is also concerned about the enhancement of the sovereign rights of the Arctic states and the expansion of exclusive economic zone, mainly – the Russian one, because it leads to significant reduction of the international Arctic waters zone.⁸⁹

One cannot exclude that China may demand the neutral waters status for the Northern Sea Route. Li Yuansheng, Deputy Director of Chinese Centre for Polar Territories Studies of the State Oceanic Administration, believes that Russia needs to provide the favourable conditions to China for passing via NSR. Ruan Zongze, expert of China Institute of International Studies, called the Northern Sea Route a global common heritage which cannot be under control of individual states.⁹⁰

At the same time, China's interest in possible access to the Arctic resources will encourage restraint and reasonable compromise on China's side. In particular, China, on the one hand, will try to promote the Arctic internationalisation idea among the non-Arctic countries, and, on the other hand, will strive to obtain support from smaller Arctic states by significant investment into their Arctic projects.⁹¹

China is intensifying its diplomacy in the Northern regions, seeking access to the resources, including rich fish reserves of the Arctic Ocean, rare earth metals deposits in Greenland and Russian hydrocarbon fields. Chinese companies are concluding numerous bilateral agreements, e.g. 2013's Free Trade Agreement with Iceland. Chinese private investment into the mining industry in Greenland is also growing; China is acquiring stakes in Russian offshore hydrocarbon production projects and in the Yamal LNG project; China is leasing a seaport in North Korea and is currently improving its infrastructure to turn it into the main transportation hub for Arctic shipments.⁹²

⁸⁷ Tang G. Arctic Issues and China's Stance // CIIS. 4 March 2013.
URL: http://www.ciis.org.cn/english/2013-03/04/content_5772842.htm

⁸⁸ Kapustin A. Arctic Debut of China // *Politica Externa*. 5 May 2015.
URL: <http://www.politicaexterna.ru/post/118187550461/arctic> (in Russian).

⁸⁹ Komissina I.N. Arctic Vector of Chinese Foreign Policy // *Problemy Natsionalnoy Strategii*. 2015. # 1 (28). P. 70.

⁹⁰ Zhukov M. Who Is the Boss in the Arctic? // *Parlamentskaya Gazeta*. 26 March 2013.
URL: <https://www.pnp.ru/comment/detail/15665> (in Russian).

⁹¹ *Ibid.*

⁹² Kapilla Yu., Mikkola Kh. Growing Arctic Interests of Russia, China, USA and EU // *Inosmi*. 12 November 2013.
URL: <http://www.inosmi.ru/arctica/20131112/214688101.html> (in Russian).

The export of workforce, international trade and joint technology development for producing hydrocarbons, lead, zinc, copper, gold, diamonds and other mineral resources are prospective areas for cooperation with Russia.⁹³

Balanced and compromise-based approach to Russia-China cooperation in the Arctic taking into account all the pros and cons seems the most desirable. China may get access to mineral resources and to the NSR in exchange for investment and technology. Chinese oil companies are leveraging their advantages to improve their position in the global market, including exploration and drilling technologies, as well as competitive costs.⁹⁴

Russia could provide lucrative contracts for joint mineral resources production and guarantee beneficial terms for the NSR use to China in exchange for China's support of its position in the UN on expanding its continental shelf borders. Otherwise China will be seeking rapprochement with other Arctic countries including the US and Canada as an alternative, which may have negative effects for Russia's position in the Arctic.⁹⁵

Russian-Chinese cooperation in the Arctic may be mutually beneficial: Russia could shift part of its financial load to its partner and may also get investments for the modernization of the existing seaports and the construction of the new ones along the NSR. In spring 2013, during the visit of Xi Jinping, President of China, to Moscow, Rosneft and CNPC agreed on joint prospecting of Zapadno-Prinovozemelsky block in the Barents Sea, and Yuzhno-Russky and Medynsko-Varandeisky blocks in the Pechora Sea. Gazprom also announced its agreements with CNPC for the exploration of Arctic oil and gas fields. In 2013 in the presence of Vladimir Putin and Xi Jinping CNPC signed an agreement on purchasing 20% of Yamal LNG shares. The project includes the construction of an LNG plant based on the resources of South Tambey field, and the creation of transportation infrastructure including a seaport for high-capacity LNG tankers and an airport in Sabetta settlement in the Gulf of Ob.⁹⁶

In December 2015, Novatek and Silk Road Fund signed the Loan Agreement of 15 years for €730 million to finance Yamal LNG project.⁹⁷ In January 2016, the President of Russia signed a law ratifying the Russia-China Yamal LNG Intergovernmental Agreement Protocol. The deal resulted in purchase of 9.9% share in Yamal LNG from Russian Novatek; and the Chinese Silk Road Fund's investment will amount to \$2 billion (the exact amount was not disclosed).

⁹³ Strategic Value of the Arctic and Study of National Interests of China. P. 121.
URL: <http://www.xzbu.com/4/view-4113029.htm> (in Chinese).

⁹⁴ PRC Foreign Energy Strategy. Cit. ex: Izimov R.Yu., Kaliaskarova Z.K. China's Global Energy Policy and Central Asia's Position (part 2) // Sauran Information Analytical Centre, 2 November 2015.
URL: <http://www.cc-sauran.kz/rubriki/politika/139-globalnaya-energeticheskaya-kitaya-2.html> (in Russian).

⁹⁵ Anayeva M.N., Grachov P.A. Arctic May Be Russian-Chinese // *Nezavisimaya Gazeta*. 20 March 2014.
URL: http://www.ng.ru/economics/2014-03-20/3_kartblansh.html (in Russian).

⁹⁶ Khodyakova E. Novatek Closed the Deal of Selling 20% of Yamal LNG to CNPC // *Vedomosti*. 15 January 2014.
URL: <http://www.vedomosti.ru/business/articles/2014/01/15/novatek-prodal-20-yamal-spg-kitajskoj-cnpc> (in Russian).

⁹⁷ Putin Approved Cooperation between Yamal LNG and Chinese Silk Road Fund // *Vedomosti*. 29 January 2016.
URL: <https://www.vedomosti.ru/business/news/2016/01/29/626085-putin> (in Russian).

Chinese investors reiterated that they were ready to invest into construction of the deep-sea Arkhangelsk commercial port and the railway from the White Sea to Komi and the Urals, to shorten the way to the White Sea by 800 km. Arkhangelsk seaport will connect the Northern Sea Route with the Russian railway network; freight turnover of the new seaport may reach up to 30 million tonnes per year.⁹⁸

On 3 September 2015, during the official visit of President of Russia Vladimir Putin to the China an agreement was signed for joint construction of railway from Solikamsk via Syktyvkar to Arkhangelsk (Belkomur project). It stipulates for the creation of a new railway infrastructure and the implementation of a number of capital projects in Perm Region, Komi Republic and Arkhangelsk Region. In particular, 1,161 km of railways will be built including 712 km of new tracks in the sections Syktyvkar (Yazel) – Perm (Solikamsk) and Karpogory – Vendinga, and the reconstruction of 449 km of tracks in the sections Arkhangelsk (Zharovikha) – Karpogory and Vendinga – Mikun.⁹⁹

“We offered them to participate in the projects to create railways carrying cargoes to the NSR ports. We can talk not only about a commercial Silk Road, but also a ‘cool’ (cold) Silk Road,” Dmitry Rogozin, Deputy Prime Minister of Russia, said at the 5th International Forum “Arctic: Today and the Future”.¹⁰⁰

Contacts between scholars and joint research are important elements of Russian–Chinese cooperation in the Arctic. On 3 September 2012, the first Russian–Chinese Arctic Cooperation Forum took place in Qingdao (Shandong province). It was initiated by Ocean University of China and financially supported by the Chinese Arctic and Antarctic Administration. Russian participants represented St. Petersburg State University, MGIMO–University, the Council for the Study of Productive Forces under the Russian Ministry of Economic Development and Russian Academy of Sciences, Russian Presidential Academy of National Economy and Public Administration. Chinese participants represented Shanghai Institutes for International Studies, Chinese National Petroleum Corporation (CNPC), First Institute of Oceanography of the State Oceanic Administration, Strategic Research Centre of the Polar Research Institute, and National Centre for Geological Exploration Technology of the Chinese Academy of Geological Sciences, as well as professors and young scholars from a number of Chinese universities.¹⁰¹

The International Workshop “Arctic Policy in the 21st Century” took place in St. Petersburg State University on 24 April 2015. It hosted participants from the Research Centre for Polar Law and Politics of the Ocean University of China (Qingdao), the Centre for Polar Research and Ocean Development of the Chinese

⁹⁸ Dmitriev V. New Great Silk Road from China to Europe May Go through the Arctic // Rossiyskaya Gazeta. # 6092 (116), 31 May 2013. URL: <http://www.rg.ru/2013/05/31/led.html> (in Russian).

⁹⁹ Russia and China Signed Agreement for Joint Implementation of Belkomur Project // Portnews. 3 September 2015. URL: <http://www.portnews.ru/news/205897/> (in Russian).

¹⁰⁰ Russia Offered China to Take Part in Constructing Railroads to NSR Ports // RIA Novosti. 7 December 2015. URL: <http://www.ria.ru/east/20151207/1337518542.html> (in Russian).

¹⁰¹ Chinese–Russian Forum of Arctic Cooperation Took Place in Qingdao // Arctic info. 12 September 2012. URL: <http://www.arctic-info.ru/news/12-09-2012/v-cindao-sostoalsa-kitaisko-rossiiskii-forum-po-arkticeskomy-sotrydnicestvy> (in Russian).

University of Transport, and the Institute for Global Governance Studies at the Shanghai Institutes for International Studies.¹⁰²

2.7. Conclusions

China's enhancing activities in the Arctic associated with the need for the resources of this area and safe and accessible sea routes for delivering exported cargoes and goods resulted in intensified research on polar and Arctic matters in Chinese academic and expert communities, as well as in the noticeable growth of diplomatic efforts for ensuring access to global governance mechanisms in the Arctic.

At the same time, China is striving to allay the fears of "the Arctic Five" with respect to its activities in the Arctic area and focuses on research and climate change issues.

Overall, China's position on the Arctic matters appears restrained, balanced and cautious, based on a commitment to abide by the existing international law and aligned with China's "win-win" strategy. This is also true for Russian-Chinese cooperation in the Arctic, which may be mutually beneficial and complementary considering the economic development of the region.

¹⁰² Discussion in St. Petersburg State University on Special Role of the Arctic // School of International Relations of St. Petersburg State University. 24 April 2015. URL: <http://www.sir.spbu.ru/news/?id=1570> (in Russian).

3. The Republic of Korea's Strategy in the Arctic

Since the 1990s, the Republic of Korea's position on the Arctic has transformed dramatically. While the country used to be a detached observer of the processes taking place in the region, now it develops and implements long-term strategies in the Arctic. This change has been particularly noticeable since the beginning of the 21st century. The reasons behind the Republic of Korea's decision to reassess its priorities with regard to the Arctic and move into the region are complex.

3.1. The Republic of Korea's Interests in the Arctic

When assessing the factors that prompted the Republic of Korea to consider stepping up its role in the Arctic, particular attention must be paid to the attempts of Seoul to achieve an objective evaluation of the economic feasibility of the commercial development of the Northern Sea Route. The prospects of using the new polar transport route to the West to a great extent stimulate the diplomatic and scientific activity of the Republic of Korea in the Arctic.

Demand for energy resources, the desire to successfully diversify sources of hydrocarbons, as well as mineral resources, is another strong argument in favour of the South Korean government – and South Korean businesses – focusing greater attention on the Arctic region. What is more, the growing ambitions of other states in the Arctic mean that they will be interested in the technologies and competitive industrial products offered by the Republic of Korea.

Another set of problems that attract the sustained attention of the South Korean political elite is linked with the need to find adequate responses to growing environmental challenges.

In addition, the economic and environmental issues associated with the Arctic objectively affect the international community as a whole. Thus Arctic issues inevitably fall within the scope of South Korean security and foreign policy, that is, those tasks that Seoul is trying to tackle both on a regional and on a global scale.

3.2. The Republic of Korea's Arctic Policy Framework

The origins of the Republic of Korea's long-term policy on the Arctic can be traced back to 1993, when the first comprehensive study on the Arctic from the South Korean perspective was carried out.¹⁰³ The first international study of Arctic issues was carried out in cooperation with the Geological Survey of Japan in 1999. Joint research with China was launched that same year, with the South Korean side involved in the study of the Bering and Chukchi seas aboard the Chinese Xue Long ("Snow Dragon") icebreaker. In 2000, South Korean scientists established working contacts with their Russian counterparts at the Arctic and

¹⁰³Arctic Policy of the Republic of Korea // Arctic Portal Library.
URL: http://www.library.arcticportal.org/1902/1/Arctic_Policy_of_the_Republic_of_Korea.pdf.

Antarctic Research Institute.¹⁰⁴ However, the actual polar research only got going in the 21st century, with the opening of the Dasan Arctic Science Station in Norway in 2002 and the construction of the Araon research icebreaker in 2009.

While the Arctic was not originally mentioned in the “Global Korea” national strategy, in practice the Lee Myung-bak administration organically introduced Arctic issues into the country’s foreign policy strategy.¹⁰⁵ Thus, in 2008, the Republic of Korea applied to become an observer to the Arctic Council. In addition, a full-fledged propaganda campaign was launched at home and abroad to support the Republic of Korea’s Arctic policy, involving Presidential visits to Norway and Greenland.

The Park Geun-hye administration, which came to power in 2013, stepped up the country’s activity in the Arctic even further, linking it to the initiative aimed at increasing the role of Eurasia in the Republic of Korea’s foreign policy, essentially providing it with a firm basis and giving it consistency.¹⁰⁶ At the initial stage, it was necessary to finish the job that the Lee Myung-bak administration had started and become a regular participant in official, as well as informal, discussions among Arctic countries. The task posed by President Park Geun-hye – to be granted permanent observer status in the Arctic Council – was achieved in May 2013 at a Ministerial Meeting held in Kiruna, Sweden. Similar status was granted to five other countries at the meeting (China, Japan, India, Singapore and Italy).¹⁰⁷ The Ministry of Foreign Affairs of the Republic of Korea called this the first key goal of the Arctic policy developed by the Park Geun-hye administration.¹⁰⁸

Further strategic goals were formulated in December 2013 and published in the “Arctic Policy of the Republic of Korea” government document, otherwise known as the “Master Plan”.¹⁰⁹ The programme for 2013–2017 stipulated four goals, the achievement of which requires the activities of state, scientific and private institutions to be coordinated in the following areas:

- Strengthening international cooperation in the Arctic,
- Developing scientific research in the polar region,
- Creating new business opportunities, including through active work within the Arctic Council,
- Ensuring the safe functioning of institutions involved in the development of Arctic strategies, including those that influence the legal framework for

¹⁰⁴Young Kil Park. Arctic Prospects and Challenges from a Korean perspective // East Asia–Arctic Relations. Boundary, Security and International Relations. Paper No. 3. December 2013. Centre for International Governance Innovation (CIGI), Waterloo, Ontario, p. 2.

¹⁰⁵ Kossa M. South Korea’s Positioning in the Arctic // World Policy Blog.
URL: <http://www.worldpolicy.org/blog/2015/09/30/south-korea%E2%80%99s-positioning-arctic>

¹⁰⁶ Ibid.

¹⁰⁷ The European Union is Desperate to Get its Hands on Arctic Raw Materials // REGNUM News Agency. 18 May 2013.
URL: <https://www.regnum.ru/news/polit/1660146.html>.

¹⁰⁸ Jakobson L., Seong-Hyon Lee. The North East Asian States’ Interests in the Arctic and Possible Cooperation with the Kingdom of Denmark // SIPRI, Copenhagen, April 2013, p. 33.

¹⁰⁹ Arctic Policy of the Republic of Korea // Arctic Portal Library.
URL: http://www.library.arcticportal.org/1902/1/Arctic_Policy_of_the_Republic_of_Korea.pdf.

exploring the Arctic. The decision has also been made to set up an information and service centre.

The main functions connected with implementing the Republic of Korea's strategy in the Arctic have been assigned to seven ministries and agencies: the Ministry of Oceans and Fisheries (MOF); the Ministry of Foreign Affairs (MOFA), which has appointed a person in charge – the Arctic Affairs Ambassador; the Ministry of Science, ICT and Future Planning (MSIP); the Ministry of Trade, Industry and Energy (MOTIE); the Ministry of Environment (MOE); the Ministry of Land, Infrastructure and Transport; and the Korea Meteorological Administration (KMA).

3.3. Research of the Republic of Korea in the Arctic

A number of respected scientific centres are involved in the implementation of the Arctic policy of the Republic of Korea, including the Korea Maritime Institute (KMI), where research is being conducted by roughly 180 employees as part of national and international oceanographic programmes. A number of these programmes are aimed at exploring the potential of the fishing industry and studying the marine and coastal mineral and resource base.

The most important role is played by the Korea Polar Research Institute (KOPRI), which became an independent research centre in 2003. Located in Incheon, KOPRI employs a total of around 200 people in its head office and at its two research stations – the King Sejong Station in the Antarctic and the Dasan Station in the Norwegian Arctic.¹¹⁰ What is more, South Korean scientists make active use of the Araon icebreaker, the cost of which is estimated at \$1 billion. KOPRI enjoys considerable scientific and managerial autonomy when it comes to choosing the topics of study. Research performed by the institute in many ways sets the objectives for South Korean polar research programmes.¹¹¹

The Korea Institute of Geoscience and Mineral Resources (KIGAM) is exploring subjects related to the problems of prospecting and developing Arctic resources.

In addition to analytical centres that focus their research on Arctic issues, a number of other institutes are involved in implementing the Arctic policy of the Republic of Korea, including the Global Green Growth Institute (Seoul) and the Green Climate Fund (Incheon). Major international forums dedicated to Arctic issues are also held in the Republic of Korea, including the 2015 Global Water Forum.

3.4. Possibilities and Limitations of the Republic of Korea's Presence in the Arctic

The Arctic policy of the Republic of Korea has both its strengths and weaknesses. One of the positive aspects of South Korea's strategy in the Arctic is its consistent, comprehensive, scientific and practical nature, which provides for a wide range of managerial, research and business structures to be involved in projects

¹¹⁰ Jakobson L., Seong-Hyon Lee, *Op. cit.*, p. 31

¹¹¹ *Ibid.*

under way. The results of this approach have been praised abroad. For example, the President of Iceland Ólafur Grímsson said that the Republic of Korea's Arctic policy is a model that observer states in the Arctic Council should strive to emulate, while the "Master Plan" for developing the Arctic would serve as an excellent model for other countries.¹¹²

ROK's limited experience of participating in Arctic issues is an objective shortcoming that, on occasion, makes it difficult to identify scientific and practical priorities. Moreover, there are a lack of integration and excessive ambitions among structures that are involved in implementing the Arctic strategy and strive to demonstrate their creativity in this relatively new field. It is the responsibility of several ministries and agencies to implement government strategies that are often very similar in nature; efforts therefore may be somewhat diffused. It is under these circumstances that KOPRI began to be tasked with promoting priority goals in the implementation of the Arctic strategy and carrying out expert evaluations of programmes. The Park Geun-hye administration seeks to overcome the lack of centralized coordination, but it will take time and effort to reverse the negative trends.

3.5. The Republic of Korea's Arctic Policy in the International Arena

As an observer state in the Arctic Council, the Republic of Korea is faced with the important task of establishing sustainable partner relations with the Council's eight permanent members. It is likely to develop active cooperation with Norway, Canada, the United States and Russia – more so than with the other states. The special nature of the relationship between the Republic of Korea and Norway is linked to the fact that Norway has become a testing ground for South Korean research programmes in the Arctic. The close ties between the Republic of Korea, Canada and the United States are based on the general foundation of their political relations (allied relations, as far as the United States is concerned) and the scale of economic and technical cooperation.

At the same time, it would be a mistake to underestimate the desire of the Republic of Korea to play an independent role in the Arctic, which is in line with the general course to follow a more independent foreign policy. Priority is likely to be given to transitioning the Arctic Council towards greater transparency in its relations with non-regional states and ultimately making South Korea's voice heard when it comes to matters of determining the legal, technical and economic conditions for developing the Arctic. By achieving this, the Republic of Korea could strengthen its international prestige among countries that are not part of the Arctic Council.

3.6. Prospects for Russia–Republic of Korea Cooperation in the Arctic

The Republic of Korea is interested in cooperation with Russia as the largest Arctic power ensuring successful functioning of the Northern Sea Route. In

¹¹² Kossa M. Op. cit.

South Korea, collaboration with Russia is linked with the prospects of using this transport corridor and developing the energy resources of the Arctic and the Circumpolar regions. In particular, great importance is attached to assessing the potential for transporting cargo along the Northern Sea Route. The Northern Sea Route is hypothetically a very attractive project: the distance between Busan (the largest port in South Korea) and Rotterdam along the polar route is 13,000 km, as opposed to the 20,000-plus km along the traditional sea route. Travel time can be reduced by as much as one third under favourable circumstances.

Another important factor is the possibility of participating in the extraction and transportation of hydrocarbons. South Korean business has already expressed an interest in this area.

Ambitions of the Republic of Korea are supported by the fact that the country is home to the largest shipbuilding complex in the world, which has the capacity to build specialized sea vessels: icebreakers, geological survey vessels, ice class reinforced tankers and offshore rigs, as well as anti-pollution equipment. Specifically, the South Korean Daewoo Shipbuilding & Marine Engineering (DMSE) is building icebreaking LNG tankers for the Russian Yamal LNG project.¹¹³ The TPI Mega Line ship operator transports cargo to the Yamal Peninsula, which also involves the use of the appropriate ice class vessels.¹¹⁴ In this context, Russia's active policy in the Arctic is seen by the government and the business community in Seoul as an opportunity to involve South Korean industry – shipbuilding in particular – in the implementation of Russian projects in the Arctic.

At the same time, the Republic of Korea's balanced approach to the development of the Arctic must be taken into account. There are two possible variants for implementing South Korea's Arctic strategy that could affect Russia's interests. The first (active) variant will be determined by the probability of the large-scale use of the Northern Sea Route over a sufficiently long period of navigation.

The alternative is a restrained strategy possible if concerns about the limitations of the Northern Sea Route are confirmed – thus casting a shadow on the commercial viability of projects. Then the Republic of Korea will not make active use of the transport corridor. The focus can therefore be shifted onto individual projects to develop the mineral and energy resources of the Polar region, as well as environmental monitoring and measures to counter climate changes and protect nature in the Arctic.

3.7. Conclusions

It would be an exaggeration to say that the Arctic plays the central role in the foreign policy of the Republic of Korea. However, an analysis of South Korea's Arctic strategy leads us to the conclusion that the problems being addressed in this area are closely linked with the country's long-term development goals: energy, transport and environmental security; development of innovative

¹¹³ South Korea's DSME to Build Tankers for Yamal LNG // OilCapital.ru. 4 July 2013.
URL: <http://www.oilcapital.ru/transport/213196.html>

¹¹⁴ South Korea Paving Sea Route to Arctic // REGNUM. 14 March 2015. URL: <http://www.regnum.ru/news/polit/1905228.html>

industries; and using the country's economic capacities in international mega-projects. This means that, moving forward, the Republic of Korea will consistently pursue proactive policies with regard to its interests in the Arctic, regardless of any changes in the administration.

4. Japan's Arctic Policy

Lacking direct access to the Arctic, Japan has stepped up its activities in the region in recent years. This is due primarily to the fact that Japan is one of the largest naval powers in the world. The country's wellbeing and prosperity depends on freedom of navigation, the stability and security of commercial maritime communications and the unity of the global trade and economic space. The Arctic forms an integral part of this space and is increasingly included in global trade and economic processes.

4.1. Japan's Interests in the Arctic

Arctic maritime routes are important to Japan for a number of reasons. Firstly, the Northern Sea Route that links Japan and Europe, and to which the Japanese government attributes the most intensive trade flows, is 40 per cent shorter than the traditional southern route via the Suez Canal. The southern route from Yokohama to Rotterdam is 20,742 km; the northern route is 12,038 km.¹¹⁵ In practice, this means substantial savings in terms of time and fuel, which reduces the cost of shipping, and increases the attractiveness of the Northern Sea Route. For example, the southern route takes 40 days, while the northern route takes only 25.¹¹⁶

What is more, the southern route is associated with additional risks: ships have to travel through the South China Sea, which has been the site of increased international tensions in recent years in connection with the territorial disputes, as well as through the Strait of Malacca, where piracy continues to be a serious problem. The Northern Sea Route, which runs exclusively along the Arctic coast of Russia, would seem far safer in this regard.

Another important reason behind Japan's increased interest in the Arctic is the issue of energy security. The Arctic region contains 13% of the world's proven oil reserves, as well as up to 30% of its natural gas. Meanwhile, oil accounts for 42% of Japan's energy balance, with 80% of oil being imported from the Middle East via the dangerous southern route.¹¹⁷ After the Fukushima Daiichi nuclear disaster in March 2011, which forced Japan to revisit the issue of diversifying its supply sources, the country's leadership set the task of increasing Japan's share in deposits abroad.¹¹⁸

Japan's approach to the Arctic as a common heritage of mankind that needs to be protected and preserved is also a motivating factor behind Japan's increased

¹¹⁵ The Arctic Route is Another Source of Contention. The Opposing Interests of Far Eastern Countries and the Interference of China. Opinion of Former French Diplomat Chen Yo-Jung // Sankai newspaper website.
URL: <http://www.sankei.com/premium/news/150227/prm1502270002-n3.html> (in Japanese).

¹¹⁶ The Arctic Ocean. Research into the Sea Route Continues. Joint Forecasts and a Coordinated Security Policy // Mainichi Shimbun. 19 February 2015. URL: <http://www.mainichi.jp/articles/20150219/ddm/013/040/005000c> (in Japanese).

¹¹⁷ Tonami A., Watters S. Japan's Arctic Policy: The Sum of Many Parts // Arctic Yearbook. 2012, p. 98.
URL: http://www.arcticyearbook.com/images/Articles_2012/Tonami_and_Watters.pdf

¹¹⁸ Sinclair J. Japan and the Arctic: Not So Poles Apart. 2014.3 Vol. 48. No. 2, p. 44.
URL: http://www.iarc.uaf.edu/sites/default/files/node/4484/japan_and_the_arctic_not_so_poles_apart_sinclair_96785.pdf

interest in the Arctic, in its capacity as a country with advanced scientific and technical potential.¹¹⁹

It is primarily a question of the country's achievements in climatology, meteorology, environmental studies and seismology. Having initiated the Kyoto Protocol, Japan has traditionally attached great importance to the effects of global warming, one of the more substantial aspects of which is the accelerated rate of ice melting in the Arctic and the decline in the Arctic ice extent.

Among the many issues of serious concern to Japan in connection with its desire to increase shipping along the Northern Sea Route, special attention has been given to the environmental risks incurred by the increased number of cargo shipments passing through Arctic waters. Specifically, the potential dangers related to oil spills and leaks of various pollutants along shipping routes. What makes these issues more acute in the Arctic is the fact that the processes of natural decomposition of hydrocarbons and the self-purification of the environment occur at a much slower rate in the cold Arctic regions than at other latitudes.

Japan gets many valued seafood species from the Polar regions and is therefore interested in protecting the marine bio-resources of the Arctic Basin. Japan's position is based upon an understanding of the unity of the global biosystem, the destruction of which would affect Japan particularly acutely for historical, cultural, civilisational and geographical reasons.

National security considerations also make Tokyo pay close attention to developments in the Arctic. Right now, Japan does not see any direct threats to the freedom of navigation in the region and it is not developing any kind of strategic plan to send naval defence forces to escort and protect Japanese ships. The risks for Japan are connected with the fact that the economic development of the Arctic, specifically the opening of new sea routes and the launching of projects to develop natural resources, could bring about major conflicts between individual countries.

Japan anticipates that increased navigational activity in Arctic waters will inevitably lead to a change in the strategic balance of the region, as the changing climate in the Arctic Ocean will make it easier for a much wider class of warships to sail the waters. In other words, Japan foresees a situation in which the Arctic will transform from a kind of background to the strategic situation in the world into an arena of direct military confrontation and, under certain conditions, the "front line of defence" in standoffs between individual countries, specifically between the United States on the one hand, and Russia on the other.

Japan is also concerned about China's attempts to gain a foothold as a strategic actor in the Arctic. It can foresee a situation where China would deploy submarines

¹¹⁹ Asari H. Recommendations for Japan's Diplomacy. "Arctic Governance and Japan's Diplomatic Strategy" Project. Chapter 8, p. 4. URL: https://www2.jiia.or.jp/en/pdf/research/2012_arctic_governance/08e-recommendations.pdf; Rising Challenges for the Japan-U.S. Alliance in the Global Commons (Cyberspace, Outer Space, and the Arctic Ocean) // The Japan Institute of International Affairs. URL: https://www2.jiia.or.jp/en/pdf/study_groups/2013-Project_Overview_Rising_Challenges_for_the_Japan-US_Alliance_in_the_Global_Commons.pdf; Japan's Arctic Policy // Prime Minister of Japan and his Cabinet. 16 October 2015, pp. 1-2. URL: [http://www.kantei.go.jp/jp/singi/kaiyou/arcticpolicy/Japans_Arctic_Policy\[ENG\].pdf](http://www.kantei.go.jp/jp/singi/kaiyou/arcticpolicy/Japans_Arctic_Policy[ENG].pdf).

in the Arctic that are equipped with submarine-launched ballistic missiles (SLBMs) and expand the navigational scope of SSBMs (ship, submersible, ballistic missile, nuclear-powered) in the Arctic Basin. According to the Japan Institute of International Affairs' expert Hideki Asari, this will allow China to cover almost the entire land mass of the United States with the JL-2, giving it effective second-strike capabilities.¹²⁰ This would in turn affect Japan's vital security interests, the country being located under the cover of the United States' "nuclear umbrella". In this context, Asari recommends strengthening strategic cooperation with Washington to monitor the balance of powers in the Arctic, including stepping up efforts to enhance missile defence and the anti-submarine patrol system, especially in key areas such as the Soya and Tsugaru straits. In addition, Asari suggests developing United States-Japan cooperation in search and rescue operations at sea.¹²¹

In turn, according to the American military analyst Robbin F. Laird,¹²² Japan's transition to the concept of "dynamic defence" in response to the increasing risks emanating from China and North Korea brings the task of developing the "twin-anchor" policy, which is based on access to the waters of the Arctic and Indian oceans, onto the agenda. Laird argues that it is beyond the capabilities of Japan to ensure that access on its own, and that this requires close cooperation with the United States, especially in monitoring, surveillance and intelligence gathering.¹²³

4.2. Japan's Arctic Policy Framework

There is no single state body implementing a consolidated Arctic policy in Japan, nor is there a state body that could be considered the main authority when it comes to carrying out such a policy in coordination with other ministries and agencies. The following government ministries and agencies are responsible for separate issues that are related to this policy:

- The Ministry of Education, Culture, Sports, Science and Technology, which carries out scientific research in the Arctic;
- The Ministry of Foreign Affairs, which is responsible for the foreign policy aspects of the Arctic policy;
- The Ministry of Land, Infrastructure, Transport and Tourism, which is responsible for state policy with regard to the world's oceans and maritime transport.¹²⁴

¹²⁰ Asari H. Recommendations for Japan's Diplomacy. "Arctic Governance and Japan's Diplomatic Strategy" Project / The Japan Institute of International Affairs. Chapter 8, p. 7.
URL: https://www2.jiia.or.jp/en/pdf/research/2012_arctic_governance/08e-recommendations.pdf

¹²¹ Asari H. Recommendations for Japan's Diplomacy. "Arctic Governance and Japan's Diplomatic Strategy" Project / The Japan Institute of International Affairs. Chapter 8, pp. 7-8.
URL: https://www2.jiia.or.jp/en/pdf/research/2012_arctic_governance/08e-recommendations.pdf

¹²² Robbin F. Laird // US Naval Institute. URL: <http://www.usni.org/author/robbin-f-laird>

¹²³ Laird R. Japan Re-Shapes Its National Security Strategy // Breaking Defense. 9 January 2014.
URL: <http://www.breakingdefense.com/2014/01/japan-re-shapes-its-national-security-strategy>

¹²⁴ Tonami A., Watters S. Japan's Arctic Policy: The Sum of Many Parts // Arctic Yearbook. 2012, pp. 93-103.
URL: http://www.iarc.uaf.edu/sites/default/files/node/4484/japan_japan_arctic_policy_the_sum_of_many_part_19119.pdf

For the practical implementation of its Arctic policy, the Japanese government has three icebreakers – Shirase, Soya and Teshio. The Shirase icebreaker is operated by the Japan Maritime Self-Defence Force, which means that there are certain legal restrictions on its use as indicated in the Self-Defence Forces Act. At present, the Shirase can only be used as a supply vessel for research conducted by National Institute of Polar Research in the Antarctic. The Soya and Teshio icebreakers belong to the Japanese Coast Guard and are used to patrol the waters to the north of Hokkaido.

In April 2013, the Cabinet of Japan approved the Basic Plan on Ocean Policy, which for the first time set out the guiding principles of Japan's Arctic policy: observation of and research on the Arctic from a global perspective; international cooperation in the Arctic; and examining the feasibility of the Arctic Sea Route.¹²⁵

As regards Arctic research, the Basic Plan sets the following tasks: establishing a research network in Japan; developing international cooperation, which would include organising international conferences in Japan and sending Japanese scholars to international forums abroad; initiating bilateral conferences on the Arctic with all interested countries; and enhancing Japan's presence in the international Arctic research community by actively participating in the Arctic Circle, Arctic Frontiers and other international forums.¹²⁶ In addition, it plans to expand the network of observation stations in Arctic countries, primarily in the United States and Russia.

There are also specific plans to modernize the research base of Arctic studies. The plan sets a goal of creating a platform for carrying out a major international research project. Measures to develop a scientific base for this platform include the development of a new class of Arctic icebreaker research vessel. Alternatively, the Shirase can be transferred from the Antarctic, where it is currently deployed, to the Arctic.

The Conference of Ministries and Agencies on Arctic Issues was formed in July 2013 to develop a comprehensive Japanese strategy for the Arctic. The participants represented the Cabinet Secretariat, the Office of the Cabinet, the Ministry of Internal Affairs and Communications, the Ministry of Agriculture, Forestry and Fisheries, the Ministry of the Economy, Trade and Industry, the Ministry of Education, Culture, Sports, Science and Technology, the Ministry of Land, Infrastructure, Transport and Tourism, the Ministry of the Environment, and the Ministry of Defence. There have been already 10 meetings of the Conference, data exchange is in progress, and the concept of Japanese Arctic policy is being developed.

In October 2015, Japan published the first comprehensive concept for its strategy in the Arctic basin. The document titled "Arctic Policy"¹²⁷ was presented in Reykjavik at the meeting of international non-government organisation Arctic

¹²⁵ Basic Plan on Ocean Policy // Prime Minister of Japan and his Cabinet. April 2013.
URL: http://www.kantei.go.jp/jp/singi/kaiyou/kihonkeikaku/130426kihonkeikaku_je.pdf.

¹²⁶ Japan's Arctic Policy // Prime Minister of Japan and his Cabinet. 16 October 2015. P. 8.
URL: http://www.kantei.go.jp/jp/singi/kaiyou/arcticpolicy/Japans_Arctic_Policy%5bENG%5d.pdf.

¹²⁷ Japan's Arctic Policy (provisional English Translation) // Arctic Portal Library. 21 October 2015.
URL: <http://www.library.arcticportal.org/1883>

Circle. It sets the strategic premises of Japanese Arctic policy in such areas as diplomacy, national security, environmental protection, transportation, resource development, information and communication, and science and technology. Interaction between government, industry and the academic community assures the comprehensive character of this policy. The document aims to set Japan as an important player that contributes to the international community through its action to Arctic issues.

“Arctic Policy” sets the following objectives:

- Make full use of Japan’s strength in science and technology from a global viewpoint,
- Give full consideration to the Arctic environment and ecosystem, which is fragile, with a lower ability to recover,
- Ensure the rule of law, and promote international cooperation in a peaceful and orderly manner,
- Respect the right of indigenous peoples to continuity in their traditional economic and social foundations,
- Pay full attention to security developments in the Arctic,
- Aim for economic and social compatibility with climate and environmental changes, and
- Seek possible economic chances for the use of the Arctic Sea Route and for the development of resources.

4.3. Japan’s Research in the Arctic

Japan has a long history of polar research. However, from 1957 onwards, Japan focused primarily on Antarctic studies. Academic interest toward the Arctic manifested starting from 1990, when Japan joined the International Arctic Science Committee (IASC).¹²⁸

There are several academic institutions in Japan engaged in Arctic studies. The National Institute of Polar Research (NIPR) appears the primary authority, as it is considered the base research centre for Arctic studies. The Institute has its own observatory in Svalbard (Spitsbergen, Norway) and is implementing several comparative studies projects on Arctic and Antarctic issues. The Institute has several departments: Space and Upper Atmospheric Sciences, Meteorology and Glaciology, Geoscience, Bioscience, Polar Engineering, and Advanced Scientific Research.¹²⁹ The implemented projects include studies of lower atmospheric layers in polar latitudes, studies of magnetosphere and solar beams in polar latitudes, studies of ice migration in the Arctic basin, and studies of changes of the Arctic ecosystems amongst others.¹³⁰

¹²⁸ Ohnishi F. The Process of Formulating Japan’s Arctic Policy: From Involvement to Engagement // East Asia-Arctic Relations: Boundary, Security and International Politics. Paper No. 1. November 2013. P. 2.
URL: <https://www.cigionline.org/sites/default/files/no1a.pdf>

¹²⁹ National Institute of Polar Research. URL: <http://www.nipr.ac.jp/english/research/index.html>

¹³⁰ Project Research // National Institute of Polar Research. URL: <http://www.nipr.ac.jp/english/research/project.html>

While the Institute is engaged mainly in inland studies, the Japanese Agency for Marine–Earth Science and Technology (JAMSTEC) is carrying out vast oceanic research of the Northern Hemisphere. In cooperation with the USA, the Agency is implementing an extensive Arctic marine exploration programme. In 1998, Japanese oceanographic ship *Mirai* had its first voyage in the Arctic Ocean and, after that, JAMSTEC organised more than 10 polar expeditions and implemented a series of major research projects on Arctic issues.¹³¹

In turn, the Japanese Aerospace Exploration Agency (JAXA) performs satellite monitoring of the circulation of oceanic waters, greenhouse gas effects etc. The Ocean Policy Research Foundation (OPRF) is also active in Japan as a think tank and lobbying organisation for Japanese maritime and adjacent industries. The Foundation implements a number of Arctic research projects, in particular those pertaining to the Northern Sea Route.

The specialised Japanese Consortium for Arctic Environmental Research (JCAR) was created for Arctic environment studies. On 30 March 2015, the Consortium published the long-term Arctic research plan¹³² defining the following four key objectives:

- To gain a better understanding of the global warming phenomenon and its mechanisms in the Arctic, improving the forecasting methodologies for these processes,
- To study the biodiversity of inland and maritime ecosystems, as well as anthropogenic impact on them, not limited to global warming processes,
- To implement a massive study of the Arctic environment including geo-space research,
- To monitor, simulate and integrate various types of Arctic research into a single concept allowing for breakthrough results of environmental studies.¹³³

Satellite monitoring performed by Japan, as well as field oceanic and inland research data, allowed for new understanding of the environmental situation in the Arctic. The high-tech level of Japanese research and scientific equipment, primarily in measuring instruments and analysers, contributed greatly to the success of these studies. Another contributing factor was engaging the leading Japanese experts in the Arctic studies. Thus, Japanese scholars made a significant contribution to studying environmental change in the Arctic.

Japan is actively participating in the work of major international organisations involved in Arctic studies: the International Arctic Science Committee (IASC), the Asian Forum for Polar Sciences (AFoPS), as well as in international research

¹³¹ Ohnishi F. The Process of Formulating Japan's Arctic Policy: From Involvement to Engagement // *East Asia-Arctic Relations: Boundary, Security and International Politics*. Paper No. 1. November 2013. P. 2.
URL: <https://www.cigionline.org/sites/default/files/no1a.pdf>

¹³² Long-Term Plan for Arctic Environmental Research // Japan Consortium for Arctic Environmental Research.
URL: http://www.jcar.org/menu06/documents/longterm-e20150330_summary.pdf

¹³³ Long-Term Plan for Arctic Environmental Research // Japan Consortium for Arctic Environmental Research. P. 3.
URL: http://www.jcar.org/menu06/documents/longterm-e20150330_summary.pdf

programmes initiated after the International Polar Year 2007–2008 (IPY 2007–2008).¹³⁴

In April 2015, Japan hosted the Arctic Science Summit Week (ASSW), which is the most reputable and representative international conference in Arctic Studies.¹³⁵ The Forum demonstrated the growing understanding of the potential consequences of changes in the Arctic, not only for the environment, but also for the economy, politics and global community in general including the non-Arctic states.

4.4. Japan's Arctic Policy in the International Arena

In its practical policy pertaining to the Arctic, Japan pays special attention to the need for a stable, solid and safe international environment. Japan presumes that the Arctic Ocean is the common heritage of mankind,¹³⁶ and that its economic development should be mutually beneficial for all the participants. Having no Arctic coastal line of its own and no territorial rights to the Arctic basin, Japan advocates resolving all legal issues pertaining to the Arctic within the existing international legal framework based on the UN Convention of the Law of the Sea (UNCLOS).¹³⁷

The concept of “common interests” is key for Tokyo’s position. It is in opposition to particular “egoistic” interests of the Arctic states. The “common interests” (“commons”) are understood as rules and norms of conduct based on international law and globally accepted not only by the Arctic states.¹³⁸

Japanese diplomacy has the objective of initiating measures to create and set such norms for the Arctic basin. Japan seeks global recognition of the “commons”, i.e. approval of the rules of conduct in this region by major influential international organisations with the maximum number of members. Therefore, Tokyo sets the task of promoting the initiative to define such norms of the International Convention on Law of the Sea of 1982, which are applicable to the Arctic regions, as well as developing the new system of legal regulation of the Arctic activities based on the Convention and other effective international law provisions.¹³⁹ In other words, Japan is interested in establishing more democratic and transparent “rules of the game” in the Arctic basin.

Japan identifies the countries of the Arctic basin, which are making excessive (in its opinion) demands for exclusive rights in the Arctic. Such countries often become the target of Tokyo’s criticism for abusing their special rights established by Article 234 of 1982 Convention, enabling them to set their own rules and

¹³⁴ Director’s Message // National Institute of Polar Research. URL: <http://www.nipr.ac.jp/english/outline/greeting.html>

¹³⁵ The Arctic Science Summit Week 2015. URL: <https://www.mice.jtbgmt.com/assw2015>

¹³⁶ Tonami A., Watters S. Japan’s Arctic Policy: The Sum of Many Parts // Arctic Yearbook. 2012. P. 97. URL: http://www.iarc.uaf.edu/sites/default/files/node/4484/japan_japan_arctic_policy_the_sum_of_many_part_19119.pdf

¹³⁷ Tonami A., Watters S. Japan’s Arctic Policy: The Sum of Many Parts // Arctic Yearbook. 2012. P. 99. URL: http://www.iarc.uaf.edu/sites/default/files/node/4484/japan_japan_arctic_policy_the_sum_of_many_part_19119.pdf.

¹³⁸ Asari H. Recommendations for Japan’s Diplomacy. “Arctic Governance and Japan’s Diplomatic Strategy” Project / The Japan Institute of International Affairs. P. 2. URL: https://www2.jiia.or.jp/en/pdf/research/2012_arctic_governance/08e-recommendations.pdf

¹³⁹ Asari H. Recommendations for Japan’s Diplomacy. “Arctic Governance and Japan’s Diplomatic Strategy” Project. P. 10. URL: https://www2.jiia.or.jp/en/pdf/research/2012_arctic_governance/08e-recommendations.pdf

norms targeted at prevention, mitigation and control of the sea pollution by navigating ships, as well as to levy fees for pilotage and navigation servicing of the ships. In particular, some Japanese players claim “insufficient substantiation” of tariffs for the respective services established by Russia. The position of Canada also raises some discontent, since Canada views huge Arctic aquatic areas as its inland waters based on the straight baseline method.¹⁴⁰

Being a non-Arctic state, Japan submitted an application to receive observer status in the Arctic Council back in July 2009, and, since 2013, has been enjoying this status along with other 11 non-Arctic states. According to the charter of this organisation, Japan participates actively in the Work Groups of the Council. It assigns its government representatives and researchers, and takes part in various events including Senior Arctic Officials (SAO) meetings, etc.¹⁴¹ Being an observer, Japan is seeking to become an intermediary between the Council members and other countries of the world, which are not part of the organisation.¹⁴²

Japan sets the objective of enhancing its role in resolving various Arctic-related issues and works hard to defend its Arctic interests within international organisations covering the Arctic basin. For example, in relation to the need for ensuring navigation safety, environmental protection and a reliable system of eliminating the consequences of environmental catastrophes in the Arctic, Japan is striving to take active part in developing the Polar Code within the International Maritime Organisation (IMO).¹⁴³

Arctic issues are important for Japan in the context of the G7 agenda, where the interests of Arctic states (the USA and Canada), on one hand, and non-Arctic states (Japan, France, the UK and Germany), on the other hand, differ significantly. Japan diplomats often raise the Arctic issue in bilateral formats – in the context of their dialogue with Russia and the US, as well as other Arctic states – members of the Arctic Council.

4.5. Japan's Economic Interests in the Arctic

Japan's economic interests in the Arctic pertain to two main areas: using the Northern Sea Route (NSR) and developing natural resources of the Arctic basin – hydrocarbons and sea bio-resources.

Japan began to show increased attention towards the Northern Sea Route starting from the 2010s, when significant growth of navigation activities was observed along the northern coastal line of Russia. Japan received a powerful incentive in the summer of 2012, when Chinese icebreaker Xue Long (“Snow Dragon”) navigated the Northern Sea Route and reached the Atlantic Ocean. It was then that

¹⁴⁰ Asari H. Recommendations for Japan's Diplomacy. “Arctic Governance and Japan's Diplomatic Strategy” Project. P. 6.
URL: https://www2.jiia.or.jp/en/pdf/research/2012_arctic_governance/08e-recommendations.pdf

¹⁴¹ Observers (Updated: 12 February 2016) // Arctic Council.
URL: <http://www.arctic-council.org/index.php/en/about-us/arctic-council/observers>

¹⁴² Japan-US Arctic Strategy and Policy Workshop // International Arctic Research Center.
URL: <http://www.iarc.uaf.edu/jp/workshops/2015/japan-usa-arctic-strategy-and-policy-workshop>

¹⁴³ Japan's Arctic Policy // Prime Minister of Japan and his Cabinet. 16 October 2015. P. 7-8.
URL: http://www.kantei.go.jp/jp/singi/kaiyou/arcticpolicy/Japans_Arctic_Policy%5bENG%5d.pdf

Japan applied maximum efforts to join the Arctic Council, if only as an observer. In December 2012, Gazprom–chartered Russian tanker *Ob* for the first time ever supplied Norwegian LNG to Japan via the NSR.¹⁴⁴ In 2013, the Japanese Ministry of Land, Infrastructure, Transport and Tourism conducted a study of the legal framework for using the NSR,¹⁴⁵ proving Japan's interest in this route. This study explored specific issues of economic feasibility of maritime freight traffic including containers, LNG and cars.¹⁴⁶ In June 2015, a meeting with business community representatives discussed limitations for using foreign ships for transporting oil and gas from Russian offshore fields. The Russian Government plans to introduce such limitations starting from 2020. Business community representatives urged the government of Japan to exert pressure on Russia in order to remove the above–described limitations.¹⁴⁷

However, a number of serious problems affecting the interests of Japanese maritime companies remain. For example, Japan is opposed to transit tariffs set by Russia, which make commercial supplies via the NSR less economically attractive.¹⁴⁸ Besides, it is not profitable for Japanese maritime companies to maintain ice–class vessels, which cannot be fully used during the entire year due to the very short navigation period.¹⁴⁹ According to Japan, unstable weather conditions and poor meteorological reporting, especially about ice migration, create big challenges for navigation. Japan is also concerned about the unsatisfactory condition of Russian ports, harbours and other maritime transportation infrastructure sites, as well as about existing limitations to receiving large–capacity vessels in Russian harbours to the East of Murmansk in case of emergency.¹⁵⁰ At this stage, Japanese experts come to a definitive conclusion: the Arctic is not ready yet for safe and reliable navigation.¹⁵¹

Nevertheless, there is some positive information. Yamal LNG project stipulates for building 10 icebreakers by 2017 for transporting liquefied gas. They will become the biggest ships built for the Arctic conditions. Japanese Mitsui OSK is among the companies that will be engaged in LNG transportation.¹⁵² There are also publications stating that regular maritime traffic between Japan and Europe via the NSR will be launched as early as 2018.¹⁵³

¹⁴⁴ Gazprom. Successful LNG Supplies via the Northern Sea Route from Norway to Japan. Why? // Kipinfo. 7 December 2012. URL: <http://www.kipinfo.ru/news/?id=4584> (in Russian).

¹⁴⁵ Tonami A. Arctic Newcomers: Japan, South Korea and Singapore // East Asia Forum. 15 February 2014. URL: <http://www.eastasiaforum.org/2014/02/15/arctic-newcomers-japan-south-korea-and-singapore>

¹⁴⁶ In Japanese. P. 7. URL: <https://www.kantei.go.jp/jp/singi/kaiyou/sanyo/dai14/siryou3.pdf>

¹⁴⁷ Ministry of Land, Infrastructure, Transport and Tourism of Japan. (In Japanese). URL: <http://www.mlit.go.jp/common/001097098.pdf>

¹⁴⁸ Sinclair J. Japan and the Arctic: Not So Poles Apart. 2014. 3 Vol. 48. No. 2. P. 44. URL: http://www.iarc.uaf.edu/sites/default/files/node/4484/japan_and_the_arctic_not_so_poles_apart_sincla_96785.pdf

¹⁴⁹ Ohnishi F. The Process of Formulating Japan's Arctic Policy: From Involvement to Engagement // East Asia-Arctic Relations: Boundary, Security and International Politics. Paper No. 1. November 2013. P. 2. URL: <https://www.cigionline.org/sites/default/files/no1a.pdf>

¹⁵⁰ Asari H. Recommendations for Japan's Diplomacy. "Arctic Governance and Japan's Diplomatic Strategy" Project. P. 6. URL: https://www2.jiaa.or.jp/en/pdf/research/2012_arctic_governance/08e-recommendations.pdf

¹⁵¹ Japan's Arctic Policy // Prime Minister of Japan and his Cabinet. 16 October 2015. P. 5. URL: http://www.kantei.go.jp/jp/singi/kaiyou/arcticpolicy/Japans_Arctic_Policy%5bENG%5d.pdf

¹⁵² Yamal LNG project // Pro-Gas.ru. URL: <http://www.pro-gas.ru/gas/jamal> (in Russian).

¹⁵³ Shimotomai N. Putin Strives for Asia. Tokyo, 2015. P. 203.

Japan is looking for engineering solutions for enhancing navigation via the Northern Sea Route and the Northwest Passage (NWP), resolving the environmental problems in relation to the forthcoming navigation, exploring the issue of financial return from using the northern route and serious scientific planning. Making use of the major Japanese technology capacities is the key task in this regard. This concerns the creation of an ice migration monitoring system, fine-tuning the system of navigational warning, and pro-active use of Japanese meteorological satellite data.

However, Japan has not yet come to a conclusion about the expediency of its participation in developing the NSR. According to Japanese experts, a lot will depend on whether or not norms and rules set by Russia are in line with international standards including UNCLOS. In this context, the Polar Code developed under the aegis of IMO is of great importance. In addition, Japan will make its decision based on whether or not joint efforts in creating reliable ice-drift monitoring and weather forecast systems are successful.

The NSR issue also has a geopolitical aspect. Some experts in Japan place a strong emphasis on the fact that the northern route from Japan to Europe will be passing the Kuril Islands, where Japan and Russia still have a territorial delimitation dispute.¹⁵⁴ They suppose that stabilisation of the international political situation around the Kuril problem is a priority.

Japan's participation in developing the oil and gas fields on the Arctic continental shelf is also of practical importance for the country's energy security. Maintaining a stake in the offshore fields' could allow Japan to mitigate the financial risks of highly volatile prices for hydrocarbons. In addition, Japan may potentially become an active buyer of Arctic gas. The growing share of Japan in the spot contracts market for LNG received from the Arctic shelf is expected to stabilise the global gas market linked to the oil market.

Japan may contribute to balancing the gas market. In Europe, which is the main consumer of Arctic gas, demand is highly dependent on the season: in winter, there is a need for heating, and demand grows, but falls again in summer. Japan, the main LNG consumer, on the contrary, has stronger needs for gas in summer, because the peak of its consumption falls to the hottest time of the year, when air conditioners are operating at full capacity.¹⁵⁵

Japan's involvement in Arctic shelf development projects puts the issue of practical use of its technological and financial capacities on the agenda. Japanese technology for construction of industrial facilities in extreme weather and high seismic activity conditions is of a particular demand. Japan could count on major procurements for building specialised vessels fit for the NSR including tankers and navigational support vessels, as well as for supplying specialised equipment for the Arctic shelf development. The problem is that drilling platforms and other types of specialised equipment are currently subject to sanctions imposed

¹⁵⁴ Shimotomai N. *Putin Strives for Asia*. Tokyo, 2015. P. 203.

¹⁵⁵ Asari H. *Recommendations for Japan's Diplomacy. "Arctic Governance and Japan's Diplomatic Strategy" Project*. Chapter 8. P. 4. URL: https://www2.jiia.or.jp/en/pdf/research/2012_arctic_governance/08e-recommendations.pdf

by Western countries against Moscow. Even though Japan did not officially announce any restrictions with respect to supplying oil and gas equipment to Russia, the execution of such contracts would be defiant, going against the Big Seven's solidarity principles, so at the current stage such a scenario does not appear realistic.

Certain specialist government organisations play an important role in Japan's involvement in the Arctic energy projects. They are the Japanese Oil, Gas and Metals Corporation (JOGMEC) and the Japanese Bank for International Development (JBIC), which specialises in credit for infrastructural projects. In 2012, JOGMEC financed exploration activities of Greenland Petroleum Exploration Co in the North-West of Greenland.¹⁵⁶

4.6. Conclusions

Japan views the Arctic as an extremely important area affecting Japan's vital interests. The shifting of the focus of Japan's activities in the Arctic from pure research to specific economic interests marked the last decade. The decision was made to harness the research for economic security. The Japanese government has set clear and specific objectives to enhance the country's efforts in the economic development of the Arctic. Priorities of Japan's Arctic policy are the enhancement of maritime communications, developing hydrocarbon fields on the Arctic shelf, deep sea fishing, and the preservation and augmentation of maritime bio resources.

Another qualitative shift of Japanese policy was the fact that Tokyo signaled its intent to play a more serious role in defining the legal framework for the Arctic and aligning the norms and rules currently effective in the Arctic with the interests of non-Arctic states.

¹⁵⁶ Makhijani S. Fossil Fuel Exploration Subsidies: Japan // Oil Change International. November 2014. P. 4.
URL: <http://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/9270.pdf>

5. Singapore's Strategy in the Arctic

Climate change has altered and is altering various environments, and in that context, the geopolitics of these regions is also changing. The melting of Arctic sea ice, for example, has made the economic prospects of shipping, fisheries and resource extraction in the Arctic increasingly feasible.¹⁵⁷ Given the highly volatile climatic impact on the Arctic ice, natural resources and indigenous communities, the governance of the Arctic is complex, and increasingly so as more non-regional actors gain a foothold in Arctic affairs via the Arctic Council (AC). One such actor is Singapore, which was admitted as an observer¹⁵⁸ alongside China, India, Japan and the Republic of Korea in 2013.¹⁵⁹

5.1. Singapore's Arctic Policy Framework

Prior to applying for observer status to the AC, Singapore had not been particularly involved in the region. Its interest in the Arctic prior to 2011 was mainly through its maritime industry when the partially state-owned Keppel Corporation¹⁶⁰ built its first two icebreakers in 2008 for Russian Lukoil–Kaliningradmorneft¹⁶¹.

When Singapore submitted its application to the Arctic Council, the Ministry of Foreign Affairs appointed a special envoy to oversee the application process. The state has often reiterated that its interests are mostly for survival, come without a political agenda, and can be observed in its Arctic engagements since admission.¹⁶² Having campaigned vigorously for observer status with each member state as well as with permanent participants, the city-state rapidly succeeded in fulfilling the required criteria.

¹⁵⁷ Gautier D.L., Bird K.J., Charpentier R. R., Grantz A., Houseknecht D.W., Klett T.R., Moore T. E., et al. Assessment of Undiscovered Oil and Gas in the Arctic. 2009. *Science* 324 (5931): 1175-9; Larsen, J.N. Global Change, Northern Transformations, and a Changing Socio- Economic Landscape // P.A. Berkman and A.N. Vylegzhanin (Eds.). *Environmental Security in the Arctic Ocean*. NATO Science for Peace and Security Series. 2013. P. 219–229.

¹⁵⁸ In order to be accepted into the Council as an observer, applicants were required to fulfill the following criteria: support the Council's objectives as defined in the Ottawa declaration; acknowledge the Arctic states' sovereignty in the region; recognize the legal framework applying to the Arctic Ocean, particularly the Law of the Sea; respect the traditions and interests of the Arctic indigenous communities; demonstrate a political and financial ability to contribute to the work of the Arctic indigenous communities; show interest and expertise pertaining to the Council's work and; show an interest to work with members and permanent participants to elevate Arctic concerns in international organizations (Arctic Council – Observers. 2015. About us – Observers. 7 May 2015). The role of observers in the AC is largely limited to observing the work of the Council, attending meetings by invitation, contributing via the working groups, task forces and expert groups, and proposing projects and making financial contributions (Observer Manual 2015).

¹⁵⁹ Kiruna Declaration // Arctic Council Secretariat. 2013. URL: https://www.oaarchive.arctic-council.org/bitstream/handle/11374/93/MM08_Final_Kiruna_declaration_w_signature.pdf?sequence=1&isAllowed=y

¹⁶⁰ Keppel Marine and Offshore is a Singapore-based maritime company (the Singapore government holds a 20% share of the company) that has been involved in maritime engineering and is one of the few Singapore based corporations to have an interest in the Arctic prior Singapore's admission into the Arctic Council.

¹⁶¹ Keppcorp. Keppel Singmarine Completes Asia's First Two Icebreakers for the Arctic // Keppel Corporation. 3 November 2008. URL: http://www.keppcorp.com/en/news_item.aspx?sid=1903;
Watters S., Tonami A. Singapore: an Emerging Arctic Actor // Arctic Yearbook. 2012.
URL: http://www.arcticyearbook.com/images/Articles_2012/Tonami_and_Watters_Singapore.pdf

¹⁶² Tonami A. Arctic Policies of Japan, South Korea and Singapore // Wilson Center Polar Initiative. September 2014.
URL: <https://www.wilsoncenter.org/publication/arctic-policies-japan-south-korea-and-singapore>.

Though Singapore does not have an official Arctic strategy, its engagements and actions in the region articulate its intentions clearly. Singapore's stated motives in joining the Arctic have been based on several factors, namely environmental protection, the development of a safe Arctic region, sustainable economic development and the development of human capital.¹⁶³ These four pillars of Arctic engagement and interests, though more accentuated in some areas than others, have to a large extent remained constant since its admission.

As Singapore is a low-lying island state with its highest elevation at only 163 m above sea level, the rise in sea level due to the melting Arctic sea-ice is of serious concern for the state. To further illustrate its stake in the changing Arctic environment despite being a tropical island located about 7000 km away from the North, Singapore often highlights the 34 Arctic migratory birds that briefly stop in Singapore's Sungei Buloh Wetlands Reserves en route along the East Asian–Australasian Flyway.¹⁶⁴ Singapore's statutory board, National Parks Board (NParks), has been actively engaging with other actors within the AC working group on Conservation of Arctic Flora and Fauna (CAFF) to track Arctic migratory birds. NParks is also organizing a Migratory Birds Initiative workshop that will take place in January 2017 in Singapore.

Singapore has also been keen in its support for reliable maritime infrastructure and effective emergency responses in the region. This can be observed in the state's active participation pertaining to maritime legal regimes in the development of the Polar Code, which was adopted by the International Maritime Organization (IMO) in mid-2015 with aims of regulating ship safety in the Arctic and Antarctic.¹⁶⁵ To further signify the state's strong and long-standing commitment for safeguarding the international law of sea, including in the region, a joint declaration between Singapore and the International Tribunal for the Law of the Sea (ITLOS) was signed in September 2015, designating Singapore as a neutral venue for the peaceful settlement of UNCLOS disputes in Asia.¹⁶⁶

Singapore developed rapidly, attributing its success to its geopolitical position since the state is the second largest shipping port in the world after Shanghai. The Straits of Malacca and Singapore (SOMS) are one of the world's busiest shipping lanes, carrying about a third of the world's traded goods. Due to warming

¹⁶³ Tan, Minister of State. Singapore in the Arctic. Presented at the Arctic Circle (Reykjavik). 14 October 2013. URL: http://www.mfa.gov.sg/content/mfa/media_centre/press_room/pr/2013/201310/press_20131014_01.printable.html?status=1

¹⁶⁴ Tan, Minister of State. Singapore in the Arctic. Presented at the Arctic Circle (Reykjavik). 14 October 2013. URL: http://www.mfa.gov.sg/content/mfa/media_centre/press_room/pr/2013/201310/press_20131014_01.printable.html?status=1; MFA Press Statement: Visit of Minister of State in the Prime Minister's Office and Ministry of Manpower Sam Tan to Nuuk, Greenland, for the Arctic Circle Greenland Forum. 17-19 May 2016. URL: https://www.mfa.gov.sg/content/mfa/media_centre/press_room/pr/2016/201605/press_20160519.html

¹⁶⁵ MFA Press Statement: State Visit of His Excellency Ólafur Ragnar Grímsson, President of the Republic of Iceland to Singapore. 11-13 November 2015. URL: http://www.mfa.gov.sg/content/mfa/media_centre/press_room/pr/2015/201511/press_20151110.html

¹⁶⁶ Joint Press Release: Singapore as a Venue for Proceedings in Cases before the International Tribunal for the Law of the Sea // Ministry of Law. 1 September 2015. URL: https://www.itlos.org/fileadmin/itlos/documents/press_releases_english/PR_239_EN.pdf; MFA Press Statement: State Visit of His Excellency Ólafur Ragnar Grímsson, President of the Republic of Iceland to Singapore. 11-13 November 2015. URL: http://www.mfa.gov.sg/content/mfa/media_centre/press_room/pr/2015/201511/press_20151110.html

temperatures and the reduction in sea ice, the Northern Sea Route is increasingly being explored commercially. Although the prospects for full-scale commercial navigation along the route are still in question, the potential development of shipping in the Arctic may be of concern given Singapore's position as a large port and maritime power.

Furthermore, significant deposits of mineral resources are projected for exploration and development in the Arctic. Singapore sees opportunities in economic projects in the region for its industries with experience in port construction, building icebreakers and ice resistant jack up rigs. For example, in currently building three icebreakers which would bring the total to ten, Keppel has stated that its aim is to further strengthen its position in the specialized market of ice-class vessels.¹⁶⁷ Moreover, given that the state's primary focus on environmental protection in the Arctic, it has been planning to develop environmentally friendly technologies to be used in the region.¹⁶⁸

Singapore has also been active in facilitating research efforts in the region. Keppel Corp, for example, has been working with various businesses to create the world's first environmentally friendly green rig, and has collaborated with the National University of Singapore to set up a Centre for Offshore Research and Engineering to better understand the changing environment in the Arctic.¹⁶⁹

Singapore's consistent engagement with the region's core stakeholders since admission has continued to strengthen not only bilateral relations with member states, but also with the permanent participants which it had not engaged with prior to demonstrating its interests in the Arctic. Singapore's involvement with the indigenous groups, such as the Inuit Circumpolar Council and the Athabaskan Council has increased¹⁷⁰ with the state's provision of scholarships to study maritime law and public policy at universities in Singapore as well as organizing study trips via the Singapore Cooperation Programme (SCP).¹⁷¹ As a small low-lying island state that has significant climate change risks, Singapore strives to provide scalable solutions and prides itself on environmental engineering solutions to mitigate and adapt to sea level rises. As such, in 2015, it invited the Arctic Athabaskan Council leaders to participate in a course on climate change

¹⁶⁷ Keppel Secures Contracts Worth S\$140 million // Keppel Offshore Marine. 17 March 2014. URL: http://www.keppelom.com/en/news_item.aspx?sid=2605&aid=4421

¹⁶⁸ MFA Press Statement: Visit of Senior Parliamentary Secretary for Foreign Affairs and Culture, Community and Youth Mr Sam Tan to Reykjavik, Iceland from 11 to 14 October 2013. 14 October 2013. URL: https://www.mfa.gov.sg/content/mfa/media_centre/press_room/pr/2013/201310/press_20131014_01.printable.html?status=1

¹⁶⁹ Tan, Minister of State. Singapore in the Arctic. Presented at the Arctic Circle (Reykjavik). 14 October 2013. URL: http://www.mfa.gov.sg/content/mfa/media_centre/press_room/pr/2013/201310/press_20131014_01.printable.html?status=1
Keppel and NUS to Set Up Corporate Lab to Develop Technological Solutions for Offshore Industry // NUS. 2013. URL: <http://news.nus.edu.sg/press-releases/7060-keppel-and-nus-to-set-up-corporate-lab-to-develop-technological-solutions-for-offshore-industry>

¹⁷⁰ MFA Press Statement: State Visit of His Excellency Ólafur Ragnar Grímsson, President of the Republic of Iceland to Singapore. 11-13 November 2015. URL: http://www.mfa.gov.sg/content/mfa/media_centre/press_room/pr/2015/201511/press_20151110.html;
The Arctic Circle Forum in Singapore // UArctic. 12 November 2015. URL: <http://www.uarctic.org/news/2015/11/president-of-the-republic-of-iceland-olafur-ragnar-gr%C3%ADmsson-the-opening-address-at-the-arctic-circle-singapore-forum>

¹⁷¹ The Singapore Cooperation Programme is the state's primary platform that offers technical assistance in lieu of financial assistance to other countries. Singapore Cooperation Program. URL: http://www.scp.gov.sg/content/scp/about_us/introduction.html

adaptation strategies under the SCP.¹⁷²

Domestically, the state has also attempted to increase awareness of the changing environment in the Far North and its potential impact on indigenous inhabitants: for example, in 2014 acclaimed Inuit storyteller Michael Kusugak was invited to share his knowledge and experiences of living in the Arctic.¹⁷³

The state's policies in the Arctic have been largely in pursuit of mutually beneficial collaborations in its four stated interests.

5.2. Singapore's Arctic Policy in the International Arena

Singapore's policy in the Arctic has largely been focused on building deeper bilateral relations as well as engaging actively within the AC and other regional forums such as the Arctic Circle Forum¹⁷⁴ and Arctic Frontiers.¹⁷⁵ In November 2015, in partnership with Arctic Circle, the Singapore Maritime Institute (SMI)¹⁷⁶ convened the Arctic Circle Forum.¹⁷⁷

Singapore's foreign policy has always hinged on being a strong supporter of balanced power.¹⁷⁸ A check on the balance of power within the Arctic is crucial especially given the region's maritime importance, the availability of vast resources and increased territorial control. As Laurelle explains, the Arctic could prove to be a significant 'balance shifter in the global equilibrium of power' and a state's power is not illustrated through the traditional military sense but via soft power such as 'logistics, technology and science'.¹⁷⁹ Singapore has been an active contributor in all three of these capacities since its admission. Furthermore, it is reputed to strongly abide by the international legal regimes and that coupled with having the second largest port in the world, lends substantial political weight to managing the balance of powers, particularly among non-Arctic countries. Singapore's application to the Council was widely supported by the Arctic member states presumably largely due to Singapore's reputation for being a neutral but

¹⁷² MFA Press Statement: State Visit of His Excellency Ólafur Ragnar Grímsson, President of the Republic of Iceland to Singapore. 11-13 November 2015.

URL: http://www.mfa.gov.sg/content/mfa/media_centre/press_room/pr/2015/201511/press_20151110.html

¹⁷³ Explore the Arctic: Past, Present and Futury // Science Centre. 2015.

URL: <http://www.science.edu.sg/exhibitions/Pages/ExploretheArctic.aspx>;

Inuit Legends and Culture – Michael Kusugak // National Library. 2014. URL: http://www.nlb.gov.sg/golibrary/Programmes/Other%20Happenings/53988/Inuit_Legends_and_Culture___Michael_Kusugak.aspx

¹⁷⁴ Arctic Circle Forum was founded by the Icelandic President, Ólafur Ragnar Grímsson in 2013 with the aim to 'increase participation in Arctic dialogue and strengthen the international focus on the future of the Arctic'. Arctic Circle.

URL: <http://www.arcticcircle.org>

¹⁷⁵ Arctic Frontiers organizes annual conferences focusing on the sustainable development within the Arctic. Arctic Frontiers. URL: <http://www.arcticfrontiers.com/arctic-frontiers/about-us>

¹⁷⁶ The Singapore Maritime Institute (SMI) is a joint effort by several government agencies, including the Maritime and Port Authority of Singapore (MPA), the Agency for Science, Technology and Research (A*STAR) and the Economic Development Board (EDB). It also partners with various academic institutions in Singapore such as NUS and NTU. Singapore Maritime Institute. URL: <https://www.maritimeinstitute.sg/about-us>

¹⁷⁷ The Arctic Circle Forum in Singapore // UArctic. 12 November 2015. URL: <http://www.uarctic.org/news/2015/11/president-of-the-republic-of-iceland-olafur-ragnar-gr%C3%ADmsson-the-opening-address-at-the-arctic-circle-singapore-forum>

¹⁷⁸ Leifer M. Singapore's Foreign Policy: Coping with Vulnerability. 2000; 2013. 1st ed. New York: Routledge.

¹⁷⁹ Laruelle M. Russia's Arctic Strategies and the Future of the Far North. 2013; 2014; 2015. Armonk, New York: M.E. Sharpe, Inc.

efficient player in global affairs.

The Ministry of Foreign Affairs (MFA) oversees Singapore's overall Arctic engagement in international fora, such as the Arctic Council and the Arctic Circle. Government statutory boards such as NParks and Maritime and Port Authority of Singapore (MPA) are responsible for specific issues within the Arctic Council Working Groups CAFF and Emergency Preparedness, Prevention and Response (EPPR).

5.3. Singapore's Research in the Arctic

Singaporean institutions such as the National University of Singapore (NUS) and Nanyang Technological University (NTU) have hosted several Arctic events and are engaging in various research projects in the region. NUS Energy Studies Institute, for example, recently organized a conference "Energy Transitions and a Globalized Arctic" in August 2016.¹⁸⁰

With the recent memorandum of understanding signed between the National University of Singapore and University of Alaska Fairbanks, additional opportunities of knowledge exchange on Arctic-related issues such as oil spills and climate change have been created.

Academics from the universities, departments and institutes have been and are pursuing research on diverse subject areas including geography, law, energy geopolitics and engineering. For example, in early 2016, NUS Centre for International Law (CIL) and MPA were endowed with a \$1.56 million grant to set up an Oceans Governance Research Programme with the aim of examining international maritime regulations and governance, with the Arctic being one of its three primary areas of research.¹⁸¹

5.4. Prospects for Russia–Singapore Cooperation in the Arctic

Besides the Arctic Council and the Arctic Circle, Singapore has been actively participating in other forums, such as the Arctic Frontiers. Its participation in these fora has also paved the way for stronger bilateral relationships with Arctic member states, including Russia.

In May 2016, Singapore's Prime Minister Lee Hsien Loong made his first visit to Moscow. A memorandum of understanding between the Eurasian Economic Commission (EEC) and Singapore was signed during the visit to promote greater trade ties and cooperation.¹⁸² The document can also positively affect bilateral collaboration between Russia and Singapore, including in the Arctic region.

Singapore's engagements with Russia can be expected to be aligned with the

¹⁸⁰ Events – Energy Transitions and A Globalized Arctic // ESI. 2016. URL: <http://www.esi.nus.edu.sg/eventitem/2016/08/19/default-calendar/energy-transitions-and-a-globalized-arctic-the-role-of-science-technology-and-governance>

¹⁸¹ Press Release – NUS and MPA Conduct Joint Research in Ocean Governance // NUS. 2016. URL: <https://www.news.nus.edu.sg/press-releases/10292-oceans-governance-research-programme>

¹⁸² Press Release – Singapore and Eurasian Economic Commission Sign MOU to Enhance Economic Ties // MTI. 2016. URL: <https://www.mti.gov.sg/NewsRoom/SiteAssets/Pages/Singapore-signed-a-Memorandum-of-Understanding-with-the-Eurasian-Economic-Commission/Singapore%20and%20Eurasian%20Economic%20Commission%20sign%20MOU%20to%20enhance%20economic%20ties.pdf>

island state's current Arctic interests – environmental protection, economic development, human capital development and development of a safe Arctic region.

As Arthur Chilingarov, Special Representative of the President of the Russian Federation for International Cooperation in the Arctic and Antarctic, stated following the visit to Singapore in March 2016, Russia and Singapore are actively developing mutually beneficial collaboration in research in the Arctic.

The two countries could potentially promote economic ties in the region taking into account Singapore's significant capacities in building ice-class vessels and drilling rigs. Russia also counts on Singapore's support of its position on the continental shelf.¹⁸³

5.5 Conclusions

As Stokke states, “deeper Asian involvement in Arctic affairs can only strengthen international governance efforts in key areas like sustainable development, safety at sea, and environmental protection, whereas the potential drawbacks are modest.”¹⁸⁴ Given the rippling effects of changes in the Arctic, both environmental and industrial, Singapore that stands to gain (and lose) can and evidently will play a significant role. Singapore's Arctic policy prior and post admission has sharply changed – from one that was non-existent to one that covers areas of interests central to the Arctic Council members and permanent participants such as indigenous communities' economic development, environmental conservation, a development of a safe maritime environment and capacity building solutions. It is clear that since Singapore's admission, the non-Arctic state has contributed significantly to the AC's objectives. Though small, its role in balancing the power in the region and expertise in providing scalable solutions may prove to be crucial as the region develops further.

¹⁸³ Chilingarov: Russia Counts on Partnership with Singapore on the Arctic // RIA. 15 March 2016.
URL: <https://www.ria.ru/politics/20160315/1389883669.html> (in Russian).

¹⁸⁴ Stokke O. S. The Promise of Involvement: Asia in the Arctic. *Strategic Analysis* 37 (4): 474. 2013.

About the Authors

Alexander Fedorovsky – Dr. of Economics, Head of Section of the Asia Pacific Region Problems, Leading Research Fellow of the Centre for Asia Pacific Studies at the Primakov Institute of World Economy and International Relations of RAS

Liudmila Filippova – Programme Manager for the Arctic and the Asia Pacific at the Russian International Affairs Council (RIAC)

Timur Makhmutov – Ph.D. in Political Science, Deputy Director of Programmes at the Russian International Affairs Council (RIAC)

Hema Nadarajah – University of British Columbia (Canada)

Vladimir Petrovsky – Dr. of Political Science, Chief Research Fellow of the Centre for Russian–Chinese Relations Studies and Forecasting at the Institute of Far Eastern Studies of RAS

Oleg Popadiuk – Ph.D. in Law, Lecturer at MGIMO University, expert on Russia–India relations, author of a range of papers and a monograph on South Asia

Dmitry Streltsov – Dr. of History, Head of the Department of Oriental Studies at MGIMO University

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Director General of RIAC is Andrey Kortunov. From 1995 to 1997, Dr. Kortunov was Deputy Director of the Institute for US and Canadian Studies of the Russian Academy of Sciences.

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RUSSIAN INTERNATIONAL AFFAIRS COUNCIL (RIAC)
1, B. Yakimanka street, 119180, Moscow, Russia
Tel.: +7 (495) 225 6283
Fax: +7 (495) 225 6284
E-mail: welcome@russiancouncil.ru
www.russiancouncil.ru