

# National interests of Japan and its emerging Arctic policy

A B Almazova-Ilyina<sup>1</sup>, A D Vinogradov<sup>2</sup>, E. E. Krasnozhenova<sup>1</sup>, K Yu Eidemiller<sup>2</sup>

<sup>1</sup>Peter the Great St. Petersburg Polytechnic University, St. Petersburg, Russia

<sup>2</sup>St. Petersburg State University, St. Petersburg, Russia

andrew.grape@bk.ru

**Abstract.** In this paper we discuss main challenges, both global and regional, that define Japan's current policy for the Arctic. Global challenges like rising sea levels and threats to marine biodiversity primarily stem from rapid climate change in the Arctic. However, these developments also bring new opportunities that attract attention of governments and businesses. Shrinking covered in ice areas open up prospects for Arctic Ocean shipping and development of natural resources. Regional challenges mostly concern rivalry between China, Japan and South Korea, as well as Japan's 'mediator' role between other states in East Asia and the Arctic. We then analyze policy initiatives in Arctic affairs declared by the government of Japan in the official documents as well as some practical outcomes of these policies. There are three main policy areas prioritized by Japan: research and development, international cooperation, and sustainability of further exploration of the Arctic. Ultimately, we attempt to identify national interests that are confronted by existing challenges and pursued by Japan in its emerging Arctic endeavors. Japan's current interests in the Arctic include energy and food security, economic interests in new shipping opportunities and extraction of natural resources, urgent environmental action, and a search for a stronger position in contemporary global and regional order.

## 1. Introduction

Rapid developments of recent decades have brought increasingly close attention to the Arctic region. Global warming and consequent melting of ice caps that turned from a suspicious theory into an alarming reality are expected to affect lives of people all around the globe. In the era of Greta Thunberg climate change issues are no longer possible to ignore. Rising sea levels are threatening to submerge populous coastal areas and small island states and erase unique cultures of its inhabitants, the most vulnerable of whom are indigenous peoples of the Arctic. Marine ecosystems are drastically changing as average sea temperatures are steadily rising. Severe climatic cataclysms disrupt normal dynamics of agricultural activities. Notwithstanding, many threats posed by climate change are counterbalanced by new opportunities, first and foremost economic ones, that raise interest amongst international business. As the Arctic Ocean becomes less of an issue for maritime navigation as a result of shrinking sea ice areas, increasing numbers of international actors are contemplating different ways of using Arctic Sea Routes, the most viable one being the Northern Sea Route (NSR) along the coast of Russia, which is connecting Europe and East Asia. Alongside with that, possibility of extracting fossil fuels of the Arctic region which account for roughly 22 percent of undiscovered resources of our planet [1] is steadily moving closer to implementation.



Finding ways to respond to these developments is now the task for not only traditional Arctic states (these being Arctic Ocean coastal states, members of the Arctic Council), but also the so called 'regional outsiders'. Japan, being but one of those, entered 'the race for the Arctic' driven by common global challenges as well as some regional incentives in intra-Asian politics that are sometimes overlooked. Even though Japan is a non-Arctic state, it has gained influence in tackling certain regional issues. Current dynamics in Asia, and especially those within China-Japan-Korea (CJK) relations, reach far beyond just regional matters and spill over to other foreign policy areas, including Arctic affairs. Some of the most important factors for international politics in East Asia are historical issues that oftentimes define standpoints of the states.

Japan joined the Arctic Council as a permanent observer not so long ago, in 2013, alongside China, South Korea and Singapore, however history of its involvement in the Arctic traces back to the 1950s. At that time it started carrying out its first Arctic observation and research projects which initiated a long-standing tradition of Japanese scientific and academic work in the field of Arctic studies. This has allowed Japan to secure the status of the first non-Arctic state to join the International Arctic Science Committee and to establish an observation station in the Arctic in 1991. Japanese Arctic policy as a set of well-articulated initiatives, on the other hand, is a rather new phenomenon as the first edition of Japan's Arctic policy was adopted only in 2015. Consequently, in 2018 Arctic matters found its way into the Third Basic Plan on Ocean Policy. Nonetheless, some of the motives for Japanese presence in the Arctic still remain unclear.

## 2. Global Arctic challenges

Global challenges that current developments in the Arctic bring are many and affect different parts of the globe in varying degrees, with some of those seeming particularly threatening for Japan. However the cause is one – global warming and its impact amplified in the Arctic environment [2]. A thorough research is still needed to evaluate all risks that rapid climate change may bring, however some of its manifestations are already clearly observable.

First and foremost, melting sea ice of the Arctic Ocean significantly contributes to the rising sea levels globally. Even though scientific estimates on the impact of this issue vary, under current dynamics smaller islands and some coastal areas are already seriously threatened to cease to exist. For Japan being an island state with its unfavorable seismic geolocation it is a particularly important issue as the majority of Japan's population occupies coastal areas of the five main islands, namely Hokkaido, Honshu, Kyushu, Shikoku and Okinawa. Many artificial islands of Japan that host countless important infrastructure units, including several airports, are also in danger. For instance, despite being designed as flood-proof, runway of Kansai International Airport (the third busiest in Japan) was submerged by water after Typhoon Jebi hit country's coastline in September of 2018 [3]. Further development of coastal defenses as well as proper maintenance of existing flood control facilities are essential measures to combat this issue.

Secondly, global warming also contributes to rising sea temperatures and subsequent change in local climate, which affects the dynamics of seasonal agricultural and living activities. However, what is much more important for Japan and not always obvious for and recognized by the public are poleward shifting distribution of marine living resources and its impact on marine ecosystems. Those shifts can have serious implications for Japan as fish and seafood traditionally comprise a great portion of the nation's diet. As shown in Food and Agriculture Organization of the United Nations (FAO) 2018 report 'The State of World Fisheries and Aquaculture', in worst case scenario marine biodiversity in the south of Japanese archipelago might lower noticeably [4]. Migration of certain traditional and essential for Japanese lifestyle species towards north, out of Japan's exclusive economic zone (EEZ), might also facilitate far-reaching jurisdictional complications, particularly escalation of Japan-Russia dispute over the Kuril Islands (known in Japan as the Northern Territories).

Thirdly, climatic changes disrupt livelihoods of indigenous peoples of the Arctic. Those of them who still uphold traditional hunter-gatherer lifestyles are experiencing hard times because of the limitations on fishery and whaling, pollution, shifts in seasonal activities and even shrinking of living

territories as ice melts and sea level rises. These circumstances force individuals of these communities to move to urbanized areas leaving behind attributes of their ways of living: hunting and fishing skills, crafts, arts, languages, cultures. Another issue – high suicide rates – emerged among those who do not want to lose connection with their people's legacy, but whose lifestyles are no longer sustainable. This problem is widely observed in Canada's Inuit, Métis and First Nations' communities where suicide rates are three times higher than among non-indigenous Canadians [5]. Japan shows its support to indigenous people of the Arctic; however as a non-Arctic state it does not prioritize this issue.

Global warming impact on the Arctic does not only bring numerous threats, but, as ambivalent as it may sound, also provides new opportunities. These mostly concern economic activities in the Arctic in two main fields – shipping and development of resources (with two subfields here being development of fossil fuels and marine living resources).

In the light of shrinking sea ice areas and longer navigation periods in the Arctic Ocean new truly exciting shipping opportunities in the Arctic are opening. Nowadays, there are two main Arctic shipping routes connecting the Pacific and the Atlantic under international scrutiny – the Northwest Passage along the coasts of Alaska and Canada, and the Northeast Passage that follows coasts of both Norway and Russia (Russian part of the Passage is commonly referred to as the NSR). The Northwest Passage seems to attract less attention of government officials and international business, since Canadian coastline in the Arctic Ocean is severely rugged and there are no major sea ports along the route. The Northeast Passage, on the other hand, provides more favorable marine navigation conditions and the access to the ice-free port of Murmansk. The issue in consideration here is that the most of the Passage (the NSR) lies within Russian EEZ, which creates certain legal and operational difficulties. Nonetheless, Japan is optimistic about this new opportunity as shipping from Hamburg to Yokohama via the Northeast Passage would take 40% less time [6]. Viability of the NSR then relies heavily on Russian authorities' further steps in their Arctic development strategy.

Development of mineral resources above the Arctic Circle in the circumstances of global warming becomes less costly. Main focus area here is the extraction of oil and natural gas. For Japan this would mean investment into development projects in the Arctic states, all while ensuring that these operations are sustainable and environmentally non-harmful. Same goes to the utilization of marine living resources which would require refinement of existing legal frameworks on fishery or even adoption of new international agreements.

### 3. Regional challenges

Asian states involvement in Arctic affairs has been frequently highlighted in research findings in the field since China, Japan, South Korea and Singapore joined the Arctic Council as permanent observers in 2013. Main focus has been set on the role they will play in the body and Arctic governance more broadly. All four are great maritime powers at the frontline of economic development in Asia with their own motivations for entering the Arctic. Among these four states, Singaporean involvement in the Arctic is quite limited since it mostly has economic motivations of expanding its offshore construction and shipbuilding industries to serve Arctic states' needs. One might even perceive Singapore's role within the Council's framework as that of a 'devil's advocate' in Arctic shipping feasibility and cost-effectiveness discussions because shipping via Arctic routes might harm its 'gatekeeper' position in the Malacca Strait. In contrast, CJK countries show greater strategic interest in dealing with Arctic issues.

Relations between China, Japan and South Korea have long appeared to be a complex intertwining of cooperation and competition [7]. It seems that their interactions follow the rule of *primus inter paribus* ('first among equal') since each of these states tries to take the lead on any possible matter while staying humble to not worsen relations with its other two counterparts.

A hugely important variable in this dynamic is history issues, primarily those addressed to Japan by Chinese and Koreans, but also between China and Korea themselves. Legacy of Japanese aggressive militaristic past practically haunts relations to this day. This notion appears to be true not only for CJK relations, but also for Southeast Asian states that were also occupied during WWII. A

new spiral in the protracted debates over history issues started in late 2018 when the Supreme Court of Korea ruled in favor of men who had been involved in forced labor under Japanese colonial rule during WWII and now demand compensation from Japanese companies [8]. Another side of the ongoing contest is that all three states are thriving global economies (all are G20 members) with the goal to acquire the best position on 'the Asia Chessboard' economically and politically as the prize is the leadership in the Asia-Pacific. Moreover, several territorial disputes between these states over small islands only add tension.

Previous research in the field shows that regional dynamics within CJK triangle pushes each of these countries to act more actively in the Arctic [9]. Although China, Japan and South Korea all have long-standing traditions of Arctic research, one can argue it was not until China applied for the Arctic Council permanent observer status in 2006 that South Korea and Japan, as well as Singapore and India, started considering their greater involvement in the region. In their research P.E. Solli, E. Wilson Rowe and W. Yennie Lindgren note that Japan's 'more political engagement with the region... has been pushed forward by the growing attention paid to the Arctic by its regional neighbors China and South Korea' [10]. Another 'pushing' event occurred in 2012 when China's icebreaking research vessel *Xue Long* ('Snow Dragon') became the first Chinese ship to cross the Arctic Ocean from Shanghai to Iceland via the NSR, sailing higher latitudes on its way back to the Bering Strait [11]. This was a wake-up call not only for Japan and South Korea, but also to Russia. Hence, Japan's further involvement in the Arctic will depend on the approach taken by both China and South Korea.

However, despite many issues that exist between China, Japan and South Korea, there is a strong grounded consensus among these states on the notion that cooperation in Northeast Asia benefits all. Currently many mechanisms exist to promote trilateral cooperation in CJK format across various issue areas, including Arctic affairs. Since 2016 CJK government officials responsible for the Arctic policy convene annually for the Trilateral High-Level Dialogue on the Arctic. This meeting serves as a valuable tool to discuss common goals in their Arctic policies, promote mutually beneficial trilateral initiatives for the Arctic and harmonize their positions on major issues addressed at the Arctic Council meetings. Currently it frequently occurs that Chinese, Japanese and Korean companies find themselves working together on various projects in the Arctic. So it only comes natural that their governments find viable ways for cooperation beforehand to ensure mutual success. Moreover, such CJK meetings are a time-tested mechanism to check up on each other and make sure that you and your partners are on the same page – everyone is 'equal' and no one is 'first'.

In regards to other Asian states that do not hold the Arctic Council observer status, Japan may play an important role by mediating a dialogue between Arctic states and regional outsiders, offering valuable insights on developments in the Arctic and conveying Arctic issues at stake to foreign publics [12]. Naturally, it is not an easy part to play, but if done successfully it will allow Japan to secure a position of a reliable source of expertise on Arctic matters in Asia, and vice versa – a representative of Asia before Arctic states.

#### **4. Japan's national interests in the Arctic**

Now let us analyze aforementioned findings to highlight Japan's national interests that are confronted by existing challenges and pursued in its policies in respect to its involvement in the Arctic. Firstly, among Japan's interests in the region are those that fall under the term 'security' in its broader sense. There are not many concerns about traditional military security since all major stakeholders agree that the Arctic should stay a region of cooperation and retain its peaceful character [13]. Tonami Aki notes that Japanese research conducted under auspices of the Ministry of Defense 'concluded that the changes in the Arctic do not pose direct security threats to Japan' [14]. However, there are concerns about physical security in regards to natural disasters facilitated by rapid climate change in the Arctic. To address these worries Japan will need to continue extensive research on possible threats as well as develop reliable response mechanisms. Another Japanese interest in question is linked to energy security. A country that imports 90% of its energy resources crucially needs a diversification of those both in terms of type and supplier. Currently Japan is reliant on Middle Eastern hydrocarbons.

Investment in Arctic oil and gas extraction projects is but one way to overcome that. This might partly explain Tokyo's quite independent approach towards relations with Russia since it does not follow US and EU sanction policies towards Russia after Ukraine crisis. Cooperation with Russia on Arctic mineral resources development seems to be an important step towards Japan's energy security. Final notion in the "security" section is the commonly overlooked food security. Certain marine species' northward migration and threats associated with it that we mentioned above must be addressed to provide the nation with a healthy and rich diet. For an island state with limited land space it is a vital issue. Again this area heavily relies on research and risks assessment.

Secondly, there are obvious economic interests to be met by Arctic exploration. One aspect of it is energy resources development discussed above. From the economic point of view there are still debates over its cost-effectiveness, so Japan is quite prudent.

The Arctic Routes started playing a significant role in Japan's shipping. The most significant one was the Northern Sea Route, which was connecting Japan and Europe. It was used for more frequent trade flows, as the Route was 40% shorter than the previously used one through the Suez Canal. In the light of the Economic Partnership Agreement between Japan and the EU that entered into force last year Japan is now particularly interested in the NSR shipping as it would benefit Japan-EU trade and help significantly increase trade volumes. Japan is also contemplating the possibility of becoming an Asian maritime hub in the beginning of the Arctic Sea Route. Authorities of Hokkaido consider the sea port of Tomakomai as the potential center for Arctic shipping and trade. Realization of Japanese economic interests relies heavily on Russian authorities and their commitment to make the NSR safe and viable route for Arctic shipping. Russian government's initiatives like 'Arctic 2035' strategy are promising to bring drastic infrastructure development and quality of life changes in the Russian Arctic. There are other areas of Japanese economy that attract Arctic states businesses, like shipbuilding, engineering and facility construction, but here Japan meets fierce competition from Korean and especially Chinese companies.

Thirdly, Japan seeks stronger position and influence in international politics. It wants to actively participate in making the rules for Arctic affairs, not just following them – a right that is currently almost exclusively enjoyed by the Arctic states. Considering impact that developments in the region have on the rest of the world this wish seems legitimate. Other dimension of this interest is competition between CJK countries. At the current point in time when the whole world is watching China continue its rise, Japan will certainly not put up with being just "China's neighbor". High-aiming ambitions of South Korea also do not leave Japan a chance to just "go with the flow". CJK countries keep constantly pushing each other forward, and despite all the rivalry it is more of an advantage for them. In regards to other East Asian states Japan has to promote positive global change, including dealing with Arctic challenges facilitated by climate change, to improve its image within the region. Overcoming militaristic perceptions of the past by doing good perfectly fits into the framework of Japanese public diplomacy to Southeast Asia.

Last, but not least, Japan is deeply invested in tackling environmental problems in the Arctic. These issues are not only contextualized as security threats, but also comply with greater consensus on the need for urgent environmental action to protect the planet. Japan shows great commitment to the United Nations Sustainable Development Goals and principles of the Paris Agreement. Japan utilizes its advanced research and observation carried out in the Arctic for over six decades now to positively contribute to the world developing sustainably and to uplift communities seriously affected by the climate change, first and foremost indigenous peoples of the Arctic.

## **5. Japan's Arctic policy**

In recent years, Japan has adopted a more complex and institutionalized approach to the Arctic. The Second Basic Plan on Ocean Policy was formulated in 2013. It included three main directions of Japan's strategy regarding the Arctic:

1. Observing and studying the Arctic;
2. Increasing international cooperation in the Arctic;

### 3. Using the Northern Sea Route.

In October of 2015 Prime Minister Abe Shinzo's Cabinet adopted 'Japan's Arctic Policy' [15]. Policy areas outlined in this document encompass topics like global environmental issues, indigenous peoples of the Arctic, science and technology, the rule of law and promotion of international cooperation, Arctic Sea Route, natural resources development and national security. By closer inspection of the document it may seem that some of these signify Japanese government's acknowledgement of existing issues (which in part complies with the Arctic Council's agenda), rather than specific policy commitments. For instance, despite Arctic indigenous peoples' issues being declared as one of the substantial challenges in Arctic affairs, on practice this policy area concerns Japan much less since it is a non-Arctic state itself. In other words, Japan does not 'consider it a serious domestic issue that needs urgent action from the government' [12]. Nonetheless, Japan realizes that and still tries to show commitment to its own policy objectives. In her speech at the Arctic Circle Assembly 2019 in Reykjavik Japanese Ambassador in charge of Arctic Affairs Miyoshi Mari focused primarily on engagement between Japan and indigenous peoples of the Arctic, showcasing projects currently carried out in Greenland, East Siberia and Alaska [16]. Thus, we can assume that Japan takes more of an issue-oriented approach in its emerging Arctic policy.

To get a more precise understanding of what Japan's Arctic policy substantially is we need to review other initiatives in this field. The Third Basic Plan on Ocean Policy [17] adopted by the Cabinet in May of 2018 included policies for the Arctic among main ocean policy directions for the first time. The document helps paint a clearer picture on priorities in Japanese Arctic policy: use of Japanese advanced science and technology to enhance research on and observation of the Arctic, promotion of international cooperation to ensure the rule of law in Arctic affairs, and exercise of sustainable maritime economic activities. These three areas – sustainability, cooperation, and research and development (R&D) – comprise the core of Japan's Arctic policy in terms of not only its national interests and strategic objectives, but also its capabilities and its potential contribution. Further we inspect each of these areas more closely to highlight Japanese achievements as well as to illustrate how challenges discussed above are contextualized within this framework.

R&D is without a doubt one of the fields that Japanese excel at and ready to share their expertise to acquire reputation among Arctic states. As we have already mentioned Japan has a long-standing tradition of Arctic research and observation that dates back to the 1950s. In 1990 the Arctic Environment Research Center was established as a part of the National Institute of Polar Research (NIPR). New institution started carrying out advanced research of sea ice, marine ecosystems, ocean and upper atmosphere in the Arctic, and currently operates two research bases on Svalbard Islands. Since 2012 Japan operates an open database of Arctic observational research and relevant datasets – the Arctic Data archive System. Japanese biggest contemporary research project – Arctic Challenge for Sustainability (ArCS), - was launched in 2015. It is co-managed by the NIPR, the Ministry of Education, Culture, Sports, Science and Technology, the Japan Agency for Marine-Earth Science and Technology and Hokkaido University. The ArCS is incredibly important because it does not only focus on climate and environment research, but studies effects of developments in the Arctic on societies, first and foremost indigenous communities, as well. Again, this project aims at openly providing reliable assessments of current situation and possible future risks to all stakeholders, domestically and globally.

Despite all the success there are certainly some limitations on Japanese Arctic research. One of these issues that is widely recognized is the number of research vessels, especially those with the capacity of an icebreaker. Nowadays, Japan owns only three icebreaking vessels; however, two of those are operated by the Japan Coast Guard and are only used to patrol waters off northern coast of Hokkaido. Another icebreaker *Shirase* is operated by the Japan Maritime Self-Defense Force, which sets legal limitations on the circumstances of its use. It is currently used as a support vessel for the NIPR research in Antarctica [18]. Japanese government's intentions to develop icebreaking research vessel as well as Autonomous Underwater Vehicle for Arctic research are declared in the Basic Plan

on Ocean Policy [19]. Thus, advancement in R&D is the starting point of any involvement in the Arctic.

International cooperation in the Arctic region is the key to ensure peaceful governance and sustainable, environmentally non-harmful character of growing economic activity. As we have already illustrated some developments in the region impact even remote parts of the globe. That is why international deliberation mechanisms that include regional outsiders are so important. This first and foremost applies to the Arctic Council and its permanent observers (thirteen non-Arctic states as of 2019). Their role is mostly consultative, as they can participate in the Council's Working Groups and file written proposals, but have no voting rights. Permanent observers' status in the Council is still up for much scrutiny. Former Ambassador of Japan in charge of Arctic Affairs Shiraishi Kazuko noted in an interview: 'the Arctic Council should consider more active involvement of Arctic observers in the council in some way which allows observers a chance to express opinions and make presentations and formulate a framework for binding agreements' [19]. Observer states certainly bring different perspective on what future they see for the Arctic. East Asian observer states, for instance, conceptualize the region in a more global sense, accentuating universal responsibility for the protection of region's fragile environment as well as rights to participate in resource development with respect to Arctic states sovereignty. Korean officials promote the idea of 'user states' when talking about regional outsiders, while their Chinese counterparts used to regard the Arctic as a 'common heritage of mankind' [10]. Japan in this regard puts respect to sovereignty and national interests of Arctic states first.

Regarding legal regime in the Arctic, the United Nations Convention on the Law of the Sea (UNCLOS) remains the main international agreement that regulates Arctic affairs, even though one of the Arctic states, the US, is not a party to the Convention. The Arctic, unlike Antarctica, does not have its own treaty system that would address its unique issues. This ignites discussions on the necessity of a special legal framework for the Arctic. Several proposals to introduce such exclusive international regime has been made, and some of these initiatives like the International Code for Ships Operating in Polar Waters (the Polar Code) adopted by the International Maritime Organization were implemented on practice. However, most of the times such attempts focus on specific issue areas since the Arctic states disagree on a number of key topics, especially those regarding maritime borders in the Arctic Ocean. For Japan universally accepted rules that major stakeholders abide to mean lower risks and costs on its operations in the Arctic. They also eliminate security and environment concerns in further exploration of the Arctic. Securing capability to influence decision making process over binding documents, especially those adopted by the Arctic Council (i.e. exclusively by Arctic coastal states) is among top priorities in Japanese Arctic policy, particularly when it comes to agreements in the fields essential for Japan, like fishery and shipping. This was quite clearly noted by above cited Ambassador Shiraishi. Generally speaking, the rule of law and strong institutions in Arctic affairs, following the logic of Robert Keohane's liberal institutionalism theory of international relations, will facilitate mutually beneficial cooperation between stakeholders and eliminate certain transaction costs.

Speaking of sustainability as a top policy area we should keep in mind economic incentives for Japanese greater involvement in the Arctic. New economic opportunities that further exploration of the Arctic offer are still linked with many uncertainties. Debates on potential economic activities in the region raise questions over possible environmental damage, cost-effectiveness and feasibility of such operations. Japan still takes the NSR shipping with a grain of salt because of security concerns, dissatisfaction with existing infrastructure, and strict sailing limitations set by the Russian government [18]. Regarding mineral resources, Japanese companies invest in several projects, including offshore exploration in Greenland and liquefied natural gas (LNG) facilities construction in Russia (Yamal LNG and Arctic LNG 2). Although these projects are important parts of Japanese energy supply diversification, some observers, mentioning the revamping of nuclear industry in Japan, regard it as 'the result of a political entente between countries' [Japan and Russia] leadership' [20]. Lastly, there is still a need in more in-depth research on biodiversity and marine ecosystems in the Arctic to ensure sustainability of fishery in region's waters. Another limitation on fishery is a short-length season for

such operations in this particular region. Overall, Japan will not deepen its involvement in the Arctic unless it acquires enough information to conduct a comprehensive assessment on sustainability and cost-effectiveness of economic activities in the region.

## 6. Conclusion

The Arctic is one of the main regions for Japan, concerning its vital interests. Japan has been actively involved in the Arctic, which is defined by new challenges and opportunities of its region. The Arctic is one of the main regions for Japan, concerning its vital interests. Japan has been actively involved in the Arctic, which is defined by new challenges and opportunities of its region. Consistently growing Japanese involvement in Arctic affairs is defined by new challenges and opportunities brought. Rising sea levels and average sea temperatures, shifting marine ecosystems, severe natural disasters are all facilitated by polar amplification of global warming and affect territories around the globe. However, communities most affected are those of indigenous peoples of the Arctic that gradually lose traditional means of sustaining their lives in circumpolar areas. Among new opportunities in the Arctic is development of natural resources, primarily fossil fuels and living marine resources, as well as Pacific-Atlantic shipping via Arctic Sea Routes. Finding ways to respond to these challenges and take emerging opportunities correlates with current national interests of Japan.

Another set of challenges is set by regional dynamics of international relations in Asia. Ongoing rivalry between Japan, China and South Korea pushes Tokyo to take more serious action in Arctic affairs. In respect to other Asian states not holding a status of the Arctic Council permanent observer Japan has to play the role of a mediator between them and Arctic coastal states motivated in part by the need to eliminate negative perceptions that trace back to the period of country's aggressive militarism.

Japan's Arctic policy was adopted in 2015, with further additions to the main concept formulated in the Third Basic Plan on Ocean Policy of 2018. Nowadays, three key policy areas for Japan are R&D, international cooperation and the rule of law, and sustainability of further exploration of the Arctic. These policy directions are designed to meet contemporary challenges both in terms of Japan's strategic objectives and available capabilities.

Japanese national interests in the Arctic include ensuring its security in broader sense, primarily energy and food safety, profiting from the use of Arctic Sea Routes' shipping and development of natural resources, taking urgent environmental action to preserve Arctic environment as well as mitigate climate change impact around the globe, and securing a position of one of the rule-makers in international politics in addition to responding to competition in CJK dynamics.

Japan's further involvement in Arctic affairs will depend on several factors. Firstly, positive results of estimations over cost-effectiveness and feasibility of economic activities in the Arctic. If Japanese businesses will be confident that their operations in the region will bring real profits, the next chapter for Japanese economic interests will open, with a possibility of Hokkaido's transformation into the primary maritime hub for transarctic shipping and trade in Asia. A huge role in building that confidence rests on Russia and its ability to ensure infrastructural development of coastal territories along the NSR. Secondly, if impact of climate change will pose greater threats, Japan will consider even greater action to mitigate its consequences by fostering research and international cooperation on environmental issues. Lastly, Japan will closely watch commitment level of its closest neighbors – China and South Korea – to Arctic policy. If these countries for whatever reasons will take a step back on the Arctic, Japan might show less interest in the region as well.

## References

- [1] Bird K J *et al* 2008 Circum-Arctic resource appraisal: estimates of undiscovered oil and gas north of the Arctic Circle. U.S. Geological Survey Fact Sheet Available from: <http://pubs.usgs.gov/fs/2008/3049/> [Accessed 20 March 2020]
- [2] Screen J and Simmonds I 2010 The central role of diminishing sea ice in recent Arctic temperature amplification *Nature* **464** 1334-37

- [3] Tabuchi H 2018 Many major airports are near sea level. A disaster in Japan shows what can go wrong *The New York Times* Available from: <https://www.nytimes.com/2018/09/07/climate/airport-global-warming-kansai.html> [Accessed 20 March 2020]
- [4] [FAO] Food and Agriculture Organization of the United Nations 2018 *The State of World Fisheries and Aquaculture 2018—Meeting the sustainable development goals* (Rome) p 132
- [5] Kumar M B and Tjepkema M 2019 Suicide among First Nations people, Métis and Inuit (2011-2016): Findings from the 2011 Canadian Census Health and Environment Cohort (CanCHEC) (Ottawa (ON): Statistics Canada) 23 Available from: <https://www150.statcan.gc.ca/n1/pub/99-011-x/99-011-x2019001-eng.pdf> [Accessed 20 March 2020]
- [6] Konyshov V N and Sergunin A A 2015 The Arctic region: international cooperation issues *Russian International Affairs Council* (Moscow: Speckniga) p 13
- [7] Zhuravel V P 2016 China, Republic of Korea and Japan in the Arctic: politics, economy, security *Arctic and North* **24** 099125
- [8] Asaba Y 2019 What's at stake in the Japan-Korea wartime/forced labor dispute: implications for the postwar global order *Nippon.com* Available from: <https://www.nippon.com/en/in-depth/a06402/what%E2%80%99s-at-stake-in-the-japan-korea-wartimeforced-labor-dispute-implications-for-the-post.html#> [Accessed 20 March 2020]
- [9] Kim M and Marchenkov M L 2019 The Republic of Korea and the Arctic region: from policy formulating to policy making *Arctic and North* **37** 058067
- [10] Solli P E, Wilson Rowe E and Yennie Lindgren W 2013 Coming into the cold: Asia's Arctic interests *Polar Geography* **36(4)** 253-70
- [11] Xinhua News Agency. 2012. Icebreaker Xuelong concludes Arctic expedition *China Daily* Available from: [http://www.chinadaily.com.cn/china/2012-09/27/content\\_15787848.htm](http://www.chinadaily.com.cn/china/2012-09/27/content_15787848.htm) [Accessed 20 March 2020]
- [12] Ikeshima T 2016 Japan's role as an Asian observer state within and outside the Arctic Council's framework *Polar Science* **10(3)** 458-62
- [13] Heininen L 2015 The Arctic region as a space for trans-disciplinary, resilience and peace *Arctic and North* **21** 069073
- [14] Tonami A 2014 The Arctic policy of China and Japan: multi-layered economic and strategic motivations *Polar Journal* **4(1)** 105-26
- [15] The Headquarters for Ocean Policy 2015 *Japan's Arctic Policy* Available from: [https://www8.cao.go.jp/ocean/english/arctic/pdf/japans\\_ap\\_e.pdf](https://www8.cao.go.jp/ocean/english/arctic/pdf/japans_ap_e.pdf) [Accessed 20 March 2020]
- [16] Ministry of Foreign Affairs of Japan 2019 *Speech by H. E. Ms. Miyoshi Mari, Ambassador of Japan in charge of Arctic Affairs at the Arctic Circle 2019* Available from: <https://www.mofa.go.jp/mofaj/files/000528517.pdf> [Accessed 20 March 2020]
- [17] The Headquarters for Ocean Policy 2018 *The Third Basic Plan on Ocean Policy* Available from: [https://www8.cao.go.jp/ocean/english/plan/pdf/plan03\\_e.pdf](https://www8.cao.go.jp/ocean/english/plan/pdf/plan03_e.pdf) [Accessed 20 March 2020]
- [18] Streltsov D V 2017 Japan's policy in the Arctic *Comparative Politics* **8(1)** 093103
- [19] Hammond J 2017 Interview with Japan's Arctic Ambassador *The Diplomat* Available from: <https://thediplomat.com/2017/03/interview-with-japans-arctic-ambassador/> [Accessed 20 March 2020]
- [20] Sassi F 2019 Japan in the Russian Arctic *The Diplomat* Available from: <https://thediplomat.com/2019/08/japan-in-the-russian-arctic/> [Accessed 20 March 2020]