

POLITICAL PROCESSES AND INSTITUTIONS

UDC 341.225(98)(045)

DOI: 10.17238/issn2221-2698.2019.34.90

Future work of the International Seabed Authority in the context of the Arctic governance *

© **Andrey A. TODOROV**, Cand. Sci. (Law), senior researcher

E-mail: atodorov85@gmail.com

Primakov National Research Institute of World Economy and International Relations, RAS, Moscow, Russia

Abstract. The article studies the history, legal framework of the International Seabed Authority, its functions, structure and current work. The analysis focuses on potential fields of ISA activity in the Arctic. Despite the ongoing expert discussions, the author is of the view that Part XI of the 1982 Law of the Sea Convention, setting out the legal basis for the governance of the Area resources and the work of ISA, applies to the Arctic Ocean like to any other part of the world ocean. The primary function of ISA is to regulate exploration and exploitation of deep seabed non-living resources beyond national jurisdiction. Apart from that, ISA will be engaged in other issues — implementation of the UNCLOS provisions on the payments by the coastal states concerning the exploitation of non-living resources on the outer continental shelf, coordination of marine scientific research in the Area, dissemination of its results, etc. Moreover, in the future, ISA could play a significant role in the integrated cross-border and cross-sectoral ecosystem governance of the Arctic Ocean.

Keywords: *International Seabed Authority, the Arctic, area, mineral resources, international cooperation, UN Convention on the Law of the Sea 1982, continental shelf, maritime areas beyond national jurisdiction.*

Introduction

Discussing the prospects for the work of the International Seabed Authority (ISA) in the Arctic is not an easy task. First of all, it is due to the political implications of the issue and media dissemination of the topic “wars for arctic resources”, potential conflicts due to extended continental shelf applications and calls to “divide” the seabed of the Arctic Ocean between the coastal states, leaving no room for the formation of seabed areas subject to regulation of the international organization. Russian experts often say that our state should not recognize the applicability to the Arctic of the “common heritage of mankind” regime provided by the UN Convention on the Law of the Sea 1982 (the Convention 1982) in relation to the seabed areas beyond continental shelf. On the other hand, experts and politicians from different countries expressed the need to extend such a regime to the Arctic Ocean, following the example of the Antarctic legal regime. Also, one might note some concerns about the emergence of contradictions between the Arctic coastal states interested in expanding their continental shelf at the expense of the Arctic seabed Area [1, Ujvari B., p. 4]. The same is fair for non-Arctic countries, which will benefit from the expansion of deep-sea areas that fall under the concept of the “common heritage of mankind.”

At the same time, only a few significant scientific publications tackling the issue of the ISA in the Arctic could be found. Possible reasons for this are the unfinished process of delineation of

* For citation:

Todorov A.A. Future work of the International Seabed Authority in the context of the Arctic governance. *Arktika i Sever* [Arctic and North], 2019, no. 34, pp. 73–89. DOI: 10.17238/issn2221-2698.2019.34.90

the seabed beyond the limits of national jurisdictions and lack of scientific data on the mineral resources of the deep seafloor in the Arctic. The purpose of this article are to study the mechanism of ISA activities, to consider the ISA history and the prospects for its activities in the Arctic, as well as review the criticism of the “common heritage mankind” concept.

General information on ISA

The development of mineral resources in the deep-sea areas has recently become extremely important. Consumption of metals in the world is steadily increasing. It is especially true for high-tech industries that are deficient in rare and rare-earth metals. At the same time, the reserves of non-ferrous metal ores on land are rapidly depleting. The buildup of significant quantities of strategically important minerals (e.g., nickel, cobalt, manganese, copper, rare-earth metals like lanthanum, scandium, yttrium, etc.) due to the discovery of new deposits on the continent becomes less and less likely [2, Lodge M., p. 1]. Under these conditions, the mineral resources of the deep-sea areas of the World Ocean become a vital source of the principal and rare elements necessary for the sustainable development and ensuring the raw material strategic reserves of states.

The limits of the deep-sea areas beyond the continental shelf of coastal states (hereinafter — the Area) contain vast reserves of mineral resources. However, today, only three types of resources of the Area are of commercial interest for states: ferromanganese nodules, cobalt-rich crusts, and polymetallic sulfides. Consequently, at present, ISA is focused only on these three types of resources. Now, only exploration activity is carried out. Although industrial mining in the Area has not yet begun, the Canadian company *Nautilus Minerals Inc.* announced the start of the first mining operations in the deep-water areas in deep-sea areas off the coast of Papua New Guinea in 2019 with the use of giant remote-controlled robots¹¹.

The concept of the Area as a common heritage of mankind was developed in the 1960s — 1970s. At first it competed with the concept of *res nullius*, i.e., the idea that the resources of the deep seabed beyond national jurisdiction did not initially belong to anyone, but to states that could establish the right to use them through unilateral “occupation.” To some extent, the latter meant that the mining in the Area should be declared as one of the freedoms of the high seas. In contrast, the concept of common heritage eliminates the possibility of unilateral actions on the acquisition of an object and implies joint and regulated management of it. At the same time, the concept of the Area as *res nullius* was supported by some developed countries, whereas the idea of common heritage reflected to a greater extent the interests of the developing [3, Egede E., pp. 55–58].

The first official document declaring the resources of the deep seabed beyond the limits of national jurisdiction to be common heritage of mankind was the UN Declaration of Principles

¹¹ World's First Deep Sea Mining Venture Set to Launch in 2019. URL: <https://www.seeker.com/worlds-first-deep-sea-mining-venture-set-to-launch-in-2019-2327856967.html> (Accessed: 08 June 2018).

Governing the Seabed and the Ocean Floor, and the Subsoil Thereof, beyond the Limits of National Jurisdiction, adopted in 1970¹². Part XI of the UNCLOS and the Agreement 1994 on the implementation of Part IX were aimed at developing the concept of Area and establishing an institution to govern the Area on behalf of the mankind.

Following Art. 1 of the 1982 Convention, “Area” means the seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction (in fact, beyond the outer limits of the continental shelf of states). Art 133 declares the Area and its resources the common heritage of mankind. It means that no country has the right to claim sovereignty or sovereign rights or exercise them in respect of any part of the Area or its resources. States, individuals or legal entities may acquire or exercise mineral rights in the Area only under the Convention.

In the Area, activities are carried out for the benefit of all mankind, regardless of the geographic location of the states, both coastal and landlocked (Art 140, § 1). According to Art. 156, an international organization responsible for the management of activities in the Area is established — the International Seabed Authority. States can search for, explore, and extract resources of the Area only through the ISA and the mechanisms within its framework. Financial and other economic benefits from activities in the Area are also equitably shared through the Authority (§ 2, Art 140). Several articles of the Convention contain provisions on the need to consider the interests of developing countries (when conducting scientific research, transfer of technology and scientific knowledge, encouraging the participation of developing countries in activities in the Area, etc.).

Art. 158–170 of the UNCLOS regulate the activities of the ISA main structures: The Assembly, the Council, and the Secretariat. Also, an Enterprise is established — a division of the Authority directly involved in the development of the resources of the Area. The Assembly is the highest body of the ISA and consists of all members of the organization. The most important function of the Assembly is the review and approval of the norms, rules and procedures of the Authority adopted by the Council (Art. 160).

ISA Council is the executive body that is entrusted by the Convention with the primary responsibility for formulating ISA’s management policies of activities in the Area. The Council approves the applicants’ exploration and development work plans after they have been reviewed by the Council’s Legal and Technical Commission, reserves seabed areas for the Authority, controls the activities of contractors in the Area, develops and adopts rules of exploration and development (that are afterwards approved by the Assambley). The Council consists of 36 members elected by the Assembly into four groups of states (Art. 161). Each member of the Council is elected for a term of four years. The Russian Federation is almost permanently presented in the Group A of the Council, which consists of four member states of the Authority which are the largest importers and consumers of mineral resources, with the obligatory participation of an Eastern European country with the largest economy.

¹²UN GA Declaration of Principles Governing the Sea-Bed and the Ocean Floor, and the Subsoil Thereof, beyond the Limits of National Jurisdiction. URL: <http://www.un-documents.net/a25r2749.htm> (Accessed: 08 June 2018).

The Secretariat of the Authority consists of the Secretary-General (since 2016 it is M. Lodge from the UK), his deputy, as well as a staff of professional and technical staff.

The regime of search, exploration and development activities in the Area is mostly the same for different types of mineral resources. The differences is the size of the area in which applicants plan to carry out activities for the exploration and development of resources and results from the physical parameters of various types of resources. Under the ISA rules of exploration and development¹³ there are three types of activities in the Area: prospecting, exploration, and mining (development). Prospecting is a search for deposits, without exclusive rights. Prospecting is carried out with the notification of the ISA Secretary-General (a contract with the ISA is not required). Exploration is a more complicated type of work compared to prospecting. It includes the analysis of such deposits, the use and testing of recovery systems and equipment, etc. Exploration is carried out in a specific part of the Area defined in the plan of work with exclusive rights, which are drawn up by a contract between the applicant and the Authority. The contract is concluded after the approval by the Council of the plan of exploration work of the applicant.

Under Annex III of the Convention 1982, when applying for an explorational contract, the applicant has the right to choose the conditions for future activities in the Area. It means that if the applicant is to carry out activities independently, it must describe two commercially equivalent sites in the application for the subsequent transfer of one of them to the Authority (the so-called reserved area option). If the applicant chooses to act within the framework of a joint venture with the Authority to develop one site, only one site must be described in the application¹⁴. The main purpose of such system is the opportunity for the Authority to obtain areas of potential commercial value for developing resources without carrying out the necessary prospecting and exploration, while applicants (states, enterprises and companies) conduct prospecting at their own expense not only for themselves but also for the Authority since it represents the interests of mankind.

Exploration contracts are concluded for a term of 15 years¹⁵. Several years (varies depending on the resource type) prior to expiration of the exploration contract, the contractor is obliged to choose a part of the exploration site assigned to him, relinquishing the remaining sites¹⁶. The

¹³See, e.g., *Pravila poiska i razvedki kobalt'onosnyh zhelezomargancevyh korok v Rajone*. [Regulations on prospecting and exploration for cobalt-rich ferromanganese crusts in the Area]. URL: https://www.isa.org.jm/sites/default/files/files/documents/isba-18a-11_3.pdf (Accessed: 08 June 2018). [In Russian]

¹⁴Art. 8–11 Annex III UNCLOS 1982

¹⁵*Soglasenie ob osushchestvlenii Chasti XI Konvencii Organizatsii Ob"edinyonnyh Nacij po morskomu pravu ot 10 dekabrya 1982 goda*. [Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea]. URL: http://www.un.org/ru/documents/decl_conv/conventions/agreement_impl_lawsea.shtml (Accessed: 08 June 2018). [In Russian]

¹⁶See: *Pravilo 27 Pravil poiska i razvedki polimetallicheskih sulfidov v Rajone* [Regulation 27, Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area] URL: https://www.isa.org.jm/sites/default/files/files/documents/isba-16a-12rev1_1_1.pdf (Accessed: 08 June 2018). [In Russian] and *Pravilo 25 Pravil poiska i razvedki polimetallicheskih sulfidov v Rajone*. [Regulation 27, Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area] URL: https://www.isa.org.jm/sites/default/files/files/documents/isba-19c-17_1_1.pdf (Accessed: 08 June 2018). [In Russian]

relinquished sites are transferred to ISA's fund. Upon expiration of the exploration contract, the contractor applies to the exploitation (mining) work plan in the remaining area. Exploitation is recovery for commercial purposes of resources of the Area and the extraction of minerals therefrom. The exploitation is also be carried out on the terms of relevant contract.

Under Art. 4 of Annex III of UNCLOS, the applicant for exploration and exploitation can be a state or an individual and legal entities if the state of their citizenship grants sponsorship for them. Exploration and development activities may also be carried out by the ISA through its Enterprise.

Today, the rules for prospecting and exploration in respect of all the mentioned types of resources are approved. The next step for the ISA is to work out the regulations for exploitation of the resources of the Area, starting with ferromanganese nodules. Also, the ISA is developing the rules regarding environmental management issues. The final task for ISA is the establishment of a management of all types of activities in the Area. The result should be a "Mining Code," which is expected to bring together all the regulations worked out by the ISA to implement the Convention 1984 and the Agreement 1994¹⁷.

Today, the ISA has exploration contracts with 27 applicants. Russian representatives are among them. Most of the contracts are valid for the Clarion-Clipperton Zone in the Pacific Ocean. Exploration also occurs in the Indian and Atlantic oceans. The Arctic Ocean is not yet among the areas where states are active in the search and exploration of resources.

Criticism of Part XI of the Convention 1982

Part XI and the common heritage concept are considered one of the key innovations in international maritime law, introduced by the UNCLOS. Previously, not any international agreement contained the concept of common heritage in relation to maritime areas.

On the other hand, it was Part XI on which states had severe disagreements while elaborating the provisions of the Convention 1982. At the III UN Conference on the Law of the Sea (1973–1982), many developed countries revealed their disagreement with the provisions of Part XI and unwillingness to sign the Convention [4, Guntrip E., p. 9]. The US delegation expressed its discontent most actively. The R.W. Reagan's administration believed that some provisions of Part XI would undermine the future industry of deep-sea seabed mining industry. The US considered the provisions on ISA structure and activities infringing on their interests since they suggested the possibility of taking decisions without due regard to the position of a single state. Americans objected to the mechanism establishing technology transfer to developing countries.

Moreover, during the III UN Conference on the Law of the Sea, the US adopted a national act on the regulation of deep seabed minerals resources (Deep Seabed Hard Minerals Resources

¹⁷ Доклад Генерального секретаря Междunarодного органа по морскому дну, предусмотренный пунктом 4 статьи 166 Конвенции Организации Объединенных Наций по морскому праву. [Report of the Secretary-General of the International Seabed Authority provided for in paragraph 4 of Article 166 of the United Nations Convention on the Law of the Sea]. URL: https://www.isa.org.jm/sites/default/files/files/documents/isba-23a-2_4.pdf (Accessed: 08 June 2018). [In Russian]

Act). The law established procedures for obtaining licenses bypassing the regime discussed under the UNCLOS. France, Italy, Japan, and some other developed countries followed the US [4, Guntrip E., p. 9].

The adoption of the Agreement relating to the implementation of Part XI of the Convention in 1994 resolved most of the problems that arose during the discussion of Part XI [5, Lodge M., p. 736]. The agreement eliminated all objections of developed countries to the specific conditions for the common heritage regime of the Area.

The US signed the Agreement 1994 but did not ratify it. Besides, the US are still not a party to the UNCLOS. However, it would be wrong to assume that Washington is opposed to the concept of “the common heritage of mankind.” In 1970, the US approved the UN General Assembly Resolution 2749 (XXV), which proclaimed the seabed and the resources of the deep-water areas of the ocean as a common heritage of mankind [6, Zagorsky A.V., p. 69]¹⁸. Most of the representatives of the American scientific expert community, the political and military leadership, and the business elite are leaning in favor of ratifying the Convention.¹⁹ The need for this step is emphasized in the US national Arctic strategy²⁰. However, all attempts of successive presidential administrations since 1994 to pass a law on ratification of the UNCLOS through the US Congress failed. The arguments of opponents of ratification, represented mainly by a group of US Senate members remain the same as those expressed by the US delegation at the III UN Conference on the Law of the Sea and boil down to the decision making process of ISA and the possibility of circumventing the US position [7, Guedev P., p. 51].

Nevertheless, the USA, while not being a party to UNCLOS recognizes most of its provisions as reflecting the norms of customary international law, i.e., general practice accepted as law²¹. Accordingly, those provisions of the Convention, which have become innovations in international maritime law, are not recognized by Americans. Most experts agree that Part XI did not acquire the status of customary international law. ISA Secretary-General an authoritative British lawyer M. Lodge shares this opinion [5, Lodge M., p. 734].

Applicability of the Area regime to the Arctic

The question of the applicability of the Area’s regime to the Arctic inevitably leads to a discussion of the general applicability of the UNCLOS to the Arctic region and its implications for the limits of the continental shelf of the coastal Arctic states. In Russia, there is a rather common position, according to which our country took the wrong way and gave away its rights for the signifi-

¹⁸ For more see: Gubanov A.I. *Razgranichenie kontinental'nogo shel'fa v Arktike: Mezhdunarodno-pravovye problemy i per-spektivy* [The delimitation of the continental shelf in the Arctic: International legal problems and prospects] M.: Zerkalo-M, 2015. pp. 108–109. [In Russian]

¹⁹ See, e.g., Erickson, Karen (2010): “Arctic Resources up for grabs; Are U.S. hands tied?”. URL: http://webcache.googleusercontent.com/search?q=cache:9ygtkkzdKQJ:www.fosters.com/article/20100124/GJOPINI ON_0102/701249951+&cd=1&hl=en&ct=clnk&gl=ru&client=opera (Accessed: 25 July 2018).

²⁰ US National Strategy For The Arctic Region. URL: https://obamawhitehouse.archives.gov/sites/default/files/docs/nat_arctic_strategy.pdf p. 9 (Accessed: 08 June 2018).

²¹ Ibid, p. 10.

cant part of the Arctic Ocean by ratifying the UNCLOS and recognizing its applicability to the Arctic by submitting a claim to UN Commission on the Limits of the Continental Shelf (CLCS)²² [8, Vylegzhanin A.N., Dudykina I.P., p. 284]. This approach called “sectoral” suggests that the UNCLOS is not the main framework for managing the Arctic Ocean, but it is only one of the sources applicable to the the Arctic. It is argued that in the 1920s, a system of sectoral division of the Arctic by the five coastal states was established. The boundaries of the Arctic sectors were determined by the meridian lines converging at the North Pole. It is concluded that “the five Arctic states have the right to delimit among themselves all seabed areas of the semi-enclosed Arctic Ocean as their continental shelf” [9, Ivanov I.S., p. 31]. In this case, in the Arctic, no seabed areas will be formed that fall into the category of the common heritage subject to Part XI of the Convention 1982 (since it is not part of customary international law). Also, the allegedly more favorable position of the US which are not member of the Convention and not obliged to recognize the Area and ISA in the Arctic, is presented as an argument [8, Vylegzhanin A.N., Dudykina I.P., p. 286].

However, as A.V. Zagorsky correctly notes [6, p. 65], the “sectoral” theory of the Arctic shelf delimitation has been thoroughly reviewed and refuted, in the Russian scholarly literature . The purpose of this article is not to criticize the “sectoral” approach. We will mention only one argument confirming the applicability of the UNCLOS to the Arctic: in 2008, at the meeting in Ilulissat (Greenland), the foreign ministers of the five coastal states declared that the “extensive international legal framework” applied to the Arctic Ocean” [9, Ivanov I.S., p. 31]. It is evident that the Ilulissat Declaration does not expressly mention the UNCLOS because one of the five states (the United States) is not a party to the Convention. However, later all the coastal states, incl. Russia and the US, repeatedly confirmed that they referred to it in the Declaration [6, Zagorsky A.V., p. 23].

Moreover, three of the five coastal states — Russia, Norway, and Denmark — have already submitted their applications to the CLCS regarding their extended continental shelf in the Arctic, and Canada is preparing to do so soon.²³ It also suggests that coastal states have taken the path of recognizing the applicability of the provisions of the UNCLOS to the Arctic and have already taken concrete actions following it. Under these conditions, speculations about the need to use the “sectoral principle”, bypassing the provisions of the Convention 1982, could increase conflicts in the Arctic region.

For this reason, there is no doubt about the correctness of ISA General Secretary M. Lodge's statement that the Arctic Ocean, as well as all other parts of the World Ocean (with some exceptions: e.g., the area around the Antarctic), is governed by the UNCLOS and the Agreement 1994. It implies that the seabed areas beyond the outer limits of the continental shelf will be con-

²² The CLCS, as well as the ISA, is a new phenomenon in international maritime law, introduced by the Convention 1982, and it does not apply to customary international law.

²³ Canada to submit Arctic continental shelf claim in 2018. URL: <https://thebarentsobserver.com/en/arctic/2016/05/canada-submit-arctic-continental-shelf-claim-2018>(Accessed: 08 June 2018).

sidered as the Area, and the development of resources in such areas will be conducted under ISA regulations [10, Lodge M., p. 178].

However, the answer to the question about the limits of the Area in the Arctic will not be given soon. The geomorphic characteristics of the AO suggest that most of its seabed will form the continental shelf of coastal states [10, Lodge M., p. 179]. The specific coordinates of the Area will depend on the limits of the extended continental shelf of the states established by them after receiving the recommendations of the CLCS. At the same time, the CLCS has made recommendations only in relation to the Norwegian application (in 2009). The Russian application submitted in 2001 and revised in 2015, like the Danish submission in 2014, is under consideration by the Commission. The United States will be able to submit its application only after the ratification of the Convention. Moreover, processing of applications may be delayed for many years due to the enormous amount of work the Commission has to complete.²⁴ According to some studies, from two to four separate sites of the Area can be formed in the Arctic Ocean.²⁵ They may contain seabed areas on the Gakkel Ridge, not included in the applications of Russia, Norway, and Denmark, as well as the Canadian Basin (see Fig. 1).



Fig. 1. Possible areas of the Area are highlighted in white. Source: Durham University.

²⁴Tulupov. D. Uroki zanimatel'noj delimitacii: kak pravil'no razdelit' arkticheskij shel'f? [The lessons of entertaining delimitation: how to properly divide the Arctic shelf?] *Oficial'nyj sajt RSMD*. URL: http://russiancouncil.ru/inner/?id_4=5583#top-content (Accessed: 08 June 2018). [In Russian]

²⁵ Non-Living Resources of The Continental Shelf Beyond 200 Nautical Miles: Speculations On The Implementation Of Article 82 Of The United Nations Convention On The Law Of The Sea. *ISA Technical Study Series*. ISA Technical Study: no. 5. P. 20. URL: <https://www.isa.org.jm/sites/default/files/files/documents/techstudy5.pdf> (Accessed: 08 June 2018).

ISA future activities in the Arctic

1. Regulation of the Area's resource exploration in the Arctic

The primary and most obvious function of ISA will be to review and approve exploration contracts and production of deep seabed resources beyond the limits of national jurisdiction in the Arctic, following the mechanism described above.

The key question is: what are the mineral resources of the future Arctic? It should be noted that today the world community does not have any exact data on this subject [10, Lodge M., p. 181]. Former Ambassador of the Ministry of Foreign Affairs of the Russian Federation on Arctic Issues A.V. Vasiliev referred to Danish experts. They indicated that 95–97% of the explored reserves of “hydrocarbons and other minerals” at the seabed of the Arctic were within 200 nautical miles of coastal states. It means the location in those areas where countries have indisputable sovereign rights to exploration under the UNCLOS [11, Vasilyev A.V., p. 15]. Other scientists usually skeptically assess hydrocarbon reserves beyond 200 miles from the coast of the Arctic states²⁶.

According to the United States Geological Survey 2008²⁷, “The common continental shelf of the Arctic may be the world's largest location of unexplored reserves of oil and gas resources.” However, accounting the central part of the Arctic Ocean (areas of the Eurasian Basin and Makarov basins, see Fig. 2 and Table. 1 “EB” and “LM”), a part of which will presumably form the Area, total oil and gas reserves, in accordance with the same study, may amount to approximately 7.6 billion b.un.e. It is just 1–2% of the undiscovered resources of the Arctic.

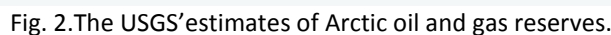
As for other mineral resources, several hydrothermal deposits were discovered on the Gakkel Ridge in the area between Greenland and Norway with the prospect of finding deposits of sulfides. The presence of similar stocks on other ridges of the Arctic Ocean is also possible [12, Byers M., pp. 193–194].

However, today, exploration and extraction of resources of the deep-sea seabed of the Arctic is a task almost impossible to solve. Mining at depths of over 60 meters in ice conditions will require technologies that will not be available in the world in the near and medium term [13, Chuprov V.A., p. 13]. The resources for exploration are currently underway in the Area (crusts, nodules, and sulfides) at depths of 400 to 5,000 meters²⁸.

²⁶ Non-Living Resources Of The Continental Shelf Beyond 200 Nautical Miles: Speculations On The Implementation Of Article 82 Of The United Nations Convention On The Law Of The Sea. *ISA Technical Study Series*. ISA Technical Study: no. 5. P. 20. URL: <https://www.isa.org.jm/sites/default/files/files/documents/techstudy5.pdf> (Accessed: 08 June 2018).

²⁷ Circum-Arctic Resource Appraisal: Estimates of Undiscovered Oil and Gas North of the Arctic Circle // The U.S. Geological Survey. URL: <https://pubs.usgs.gov/fs/2008/3049/fs2008-3049.pdf> (Accessed: 08 June 2018).

²⁸ Morskie mineral'nye resursy [Marine mineral resources] *Broshyura MOMD*. p. 2. URL: https://www.isa.org.jm/sites/default/files/files/documents/ia6_rus.pdf (Accessed: 08 June 2018). [In Russian]



Another issue that the ISA in the Arctic will take up and which will arise earlier than others is the implementation of the provisions of art. 82 of the UNCLOS reduce the potential Area²⁹. According to it, the coastal state makes payment or “contributions in kind” in connection with the development of non-living resources of the continental shelf beyond 200 nautical miles. The fee is made annually after the first five years of production. The amount for the sixth year is 1% of the value or volume of output and increases by 1% each year until the end of the 12th year and then remains at the level of 7%.

²⁹ Issues Associated with the Implementation of Article 82 of the United Nations Convention on The Law of The Sea. *International Seabed Authority's technical study*. URL: <https://www.isa.org.jm/sites/default/files/files/documents/tstudy4.pdf> (Accessed: 08 June 2018).

30 Ibid.

Table 1

The USGS' estimates of Arctic oil and gas reserves

TABLE 1 – ESTIMATED OIL & GAS IN-PLACE IN THE ARCTIC Sorted from largest to smallest prize in MMBOE for each geological province					
PROVINCE CODE	GEOLOGICAL PROVINCE	OIL (MMBO)	TOTAL GAS (BCFG)	NGL (MMBNGL)	BOE (MMBOE)
WSB	West Siberian Basin	3,659.88	651,498.56	20,328.69	132,571.66
AA	Arctic Alaska	29,960.94	221,397.60	5,904.97	72,765.52
EBB	East Barents Basin	7,406.49	317,557.97	1,422.28	61,755.10
EGR	East Greenland Rift Basins	8,902.13	86,180.06	8,121.57	31,387.04
YK	Yenisey-Khatanga Basin	5,583.74	99,964.26	2,675.15	24,919.61
AM	Amerasia Basin	9,723.58	56,891.21	541.69	19,747.14
WGEC	West Greenland-East Canada	7,274.40	51,818.16	1,152.59	17,063.35
LSS	Laptev Sea Shelf	3,115.57	32,562.84	867.16	9,409.87
NM	Norwegian Margin	1,437.29	32,281.01	504.73	7,322.19
BP	Barents Platform	2,055.51	26,218.67	278.71	6,704.00
EB	Eurasia Basin	1,342.15	19,475.43	520.26	5,108.31
NKB	North Kara Basins and Platforms	1,807.26	14,973.58	390.22	4,693.07
TPB	Timan-Pechora Basin	1,667.21	9,062.59	202.80	3,380.44
NGS	North Greenland Sheared Margin	1,349.80	10,207.24	273.09	3,324.09
LM	Lomonosov-Makarov	1,106.78	7,156.25	191.55	2,491.04
SB	Sverdrup Basin	851.11	8,596.36	191.20	2,475.04
LA	Lena-Anabar Basin	1,912.89	2,106.75	56.41	2,320.43
NCWF	North Chukchi-Wrangell Foreland Basin	85.99	6,065.76	106.57	1,203.52
VLK	Vilkitskii Basin	98.03	5,741.87	101.63	1,156.63
NWLS	Northwest Laptev Sea Shelf	172.24	4,488.12	119.63	1,039.90
LV	Lena-Vilyui Basin	376.86	1,335.20	35.66	635.06
ZB	Zyryanka Basin	47.82	1,505.99	40.14	338.95
ESS	East Siberian Sea Basin	19.73	618.83	10.91	133.78
HB	Hope Basin	2.47	648.17	11.37	121.87
NWC	Northwest Canada Interior Basins	23.34	305.34	15.24	89.47
MZB	Mezen' Basin	NQA ⁽¹⁾	NQA	NQA	NQA
NZAA	Novaya Zemlya Basins and Admiralty Arch	NQA	NQA	NQA	NQA
TUN	Tunguska Basin	NQA	NQA	NQA	NQA
CB	Chukchi Borderland	NQA	NQA	NQA	NQA
YF	Yukon Flats (part of Central Alaska Province)	NQA	NQA	NQA	NQA
LS	Long Strait	NQA	NQA	NQA	NQA
JMM	Jan Mayen Microcontinent	NQA	NQA	NQA	NQA
FS	Franklinian Shelf	NQA	NQA	NQA	NQA
Totals		89,983.21	1,668,657.84	44,064.24	412,157.09
SOURCE: USGS (http://pubs.usgs.gov/fs/2008/3049/) Note: 1) NQA - Not Quantitatively Assessed					

Despite its brevity, Art. 82, partly because of its innovative nature, contains many ambiguities regarding concepts and mechanisms of implementation. In particular, the notion of “volume of extracted products” (raw material or “pure product”?) requires clarification. How its cost should be calculated? What is meant by “natural contribution”? And who will bear the cost of delivering such contributions to the Authority?

Also, the taxation of payments from transboundary fields (located on the border of the shelf of different states beyond 200 n. miles or between the continental shelf and the Area) should

be worked out. Also, no clear criteria for the distribution of payments by ISA among developing countries exist³¹.

To clarify these and other issues related to the implementation of Article 82 of the UNCLOS, round tables and expert meetings have been held since 2009 on the initiative of the Authority and the British Royal Institute of International Relations (Chatham House)³². As for the Arctic, the recommendation made at one of such sessions is of interest — the Authority and the producing states could conclude special agreements to implement the provisions of Art. 82. It was proposed that the Authority could develop a form and standards for such an agreement [10, Lodge M., p. 183].

3. Marine scientific research in the Arctic

Under the UNCLOS, all states have the right to conduct marine scientific research (Art. 238). The Convention contains special provisions for research in the Area. According to Art. 256, all states (what is important — not only states — parties), irrespective of their geographical location, have the right for scientific research in the Area under Part XI. Part XI (Art. 143) states that marine scientific research in the Area is carried out exclusively for peaceful purposes and the benefit of all mankind. ISA may also carry out such activities in the Area and enter into contracts for this purpose. The role of the Authority is to promote and encourage research in the Area, their coordination and dissemination of results. Further, the states — parties to the UNCLOS (not all states, as it is in Art. 256) are obliged to encourage international cooperation in marine scientific research. It means participation in international scientific programs, dissemination of scientific results through the Authority or other international organizations, as well as through program development, to support developing countries, strengthen their research capacity and train their staff.

The Arctic has a long history of international scientific research. Given the current climate change, the role of the scientific study of the North is becoming more and more crucial. It is in particular underlined by the international agreement of 8 Arctic states on scientific cooperation concluded in 2017³³. In light of the aforementioned provisions of the UNCLOS, significant responsibility for the actions aimed at strengthening scientific cooperation lies with regional intergovernmental organizations and institutions: first of all, the Arctic Council and International Arctic Scientific Committee (IASC) — mediators in establishing interaction with the Authority and distribution of the scientific results [10, Lodge M., p. 186]. Naturally, this should consider the difference in scientific research. E.g., the collection of data on the nature of the seabed to prove its continental origin for the Commission on the Limits of the Continental Shelf should not fall under the provisions on the dissemination of research results. Another thing is scientific research to improve the

³¹ Ibid

³² See.: The ISA technical study. URL: <https://www.isa.org.jm/sites/default/files/files/documents/tstudy4.pdf>; https://www.isa.org.jm/sites/default/files/files/documents/ts15-web_0.pdf; <https://www.isa.org.jm/sites/default/files/files/document/s/ts12-web.pdf> (Accessed: 08 June 2018).

³³ Agreement on Enhancing International Arctic Scientific Cooperation. URL: <https://oaarchive.arctic-council.org/handle/11374/1916> (Accessed: 08 June 2018).

understanding of the processes occurring in the Arctic. It is where the broad international cooperation and facilitating activities of the Authority should be directed since obtaining such knowledge is in the interest of all states.

The role of ISA in the integrated ecosystem-based marine management in the Arctic

Currently, global regulation of maritime activities is subject to specific changes that should be considered in case of the Arctic. Environmental issues come to the fore in the world agenda concerning the marine management [14, Gudev P.A., p. 100]. At the global and regional levels, integrated cross-border (i.e., covering all legal categories of marine spaces, incl. the Area and the high seas) measures to protect the marine environment from the adverse effects of human activities are discussed.

The Arctic does not remain aloof from these trends. Environmental issues have always been the focus of the Arctic Council³⁴. Recently, the problem of integrated cross-border marine management has emerged as a separate line of work of the AC. Since 2015, the Task Force on the Arctic Marine Cooperation has been functioning within its framework. Its current mandate is to assess the need to create a potential new body for integrated ecosystem-based management of the Arctic marine areas, as well as to improve existing AC mechanisms for the same purpose³⁵.

However, the creation of such a mechanism implies the successful solution of several existing problems. One of them is the sectoral nature of the existing system of regulation of maritime activities [15, Molenaar E.J., Elferink A.G., p. 10]. Even if any of the existing global mechanisms have authority in cross-border protection of the marine environment, the measures it takes are related to a strictly defined type of human activity. E.g., the International Maritime Organization (IMO), designed to regulate shipping safety, has the right to consider the creation of special areas and marine areas with particular vulnerability (Particularly Sensitive Sea Areas), incl. beyond national jurisdiction, which have stricter shipping rules that limit or prohibit certain activities to protect the marine environment³⁶.

The fisheries activities are regulated through the global mechanism in the form of the Agreement on the implementation of the provisions of the UNCLOS (hereinafter — the Agreement 1995³⁷), which concerns conservation of straddling and highly migratory fish stocks. Under the Agreement 1995, there is a network of regional fisheries managing organizations (RFMOs) in the world, with significant powers to protect fish stocks across borders, incl. the creation of sea areas

³⁴ Official web-site of the Arctic Council. URL: <http://www.arctic-council.org/index.php/ru/about-us> (Accessed: 08 June 2018).

³⁵ Report to Ministers of the Task Force on Arctic Marine Cooperation (TFAMC). Arctic Council. URL: <https://oarchive.arctic-council.org/bitstream/handle/11374/1923/2017-04-30-Edocs-4079-v3-TFAMC-report-to-ministers-with-cover-and-colophon.pdf?sequence=1&isAllowed=y> (Accessed: 08 June 2018).

³⁶ About local and global mechanisms, see. Protecting the marine environment in areas beyond national jurisdiction. *Foundation for International Environmental Law and Development*. URL: http://www.lighthouse-foundation.org/fileadmin/LHF/PDF/field_mpas_guide_april_2012.pdf (Accessed: 08 June 2018).

³⁷ Agreement on the implementation of the provisions of the United Nations Convention on the Law of the Sea of December 10, 1982, relating to the conservation and management of straddling fish stocks and stocks of migratory fish.

that are closed to fishing. Also, the International Food and Agriculture Organization is entitled to take regulatory measures for fisheries.

ISA belongs to global mechanisms that have sectoral powers to protect the marine environment from damage caused by a specific type of activity — exploration and mining of the mineral resources of the Area. To this end, the Authority may, among other things, establish marine protected areas (areas of special ecological interest) where exploration and development of resources are prohibited. E.g., in 2012, the ISM approved an environmental management plan for the Clarion-Clipperton Zone, which provides for the creation of 9 areas of environmental interest³⁸.

There are some other types of global sectoral mechanisms, but there is still no universal tool for integrated ecosystem marine management worldwide. Nevertheless, attempts to create it are undertaken. For example, currently there is ongoing work to adopt an agreement supplementing the UNCLOS on conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction. It is accompanied by a decision of the General Assembly to establish a special conference on the preparation of an agreement³⁹.

In the absence of a single global cross-sectoral mechanism, the initiative has shifted to the regional level. There is a significant number of regional organizations for the protection of the marine environment. However, the regional ecosystem regulation of maritime activities implies need of active involvement of countries not participating in the regional mechanism (third states) in the implementation of measures developed for areas beyond national jurisdiction. The starting point of international law: the freedoms of the high seas apply in the high seas, and vessels are subject to the flag state jurisdiction. It is evident that the countries of the region can agree to change the regime and restrict the freedoms established by the UNCLOS among themselves and persons under their jurisdiction. However, they have no right to limit the rights of third states [15, Molenaar E.J., Elferink A.G., p. 18].

According to the UNEP report 2017⁴⁰, currently, areas outside national jurisdiction are somehow included in the geographic areas of the five regional mechanisms: the OSPAR Commission (Commission for the Protection of the Marine Environment of the North-East Atlantic), the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR), the Barcelona Convention for the Protection of the Mediterranean Sea against Pollution, the Convention for the Protection of the Natural Resources of the South Pacific and the Convention for the Protection of the Marine Environment and the Coastal Zone of the South-East Pacific.

³⁸ Council Decision on the Environmental Management Plan for the Clarion-Clipperton Zone. International Seabed Authority. URL: https://www.isa.org.jm/sites/default/files/files/documents/isba-18c-22_1_1.pdf (Accessed: 08 June 2018).

³⁹ Resolution 72/249 approved by the UN General Assembly 24 December 2017. URL: <http://undocs.org/ru/a/res/72/249> (Accessed: 08 June 2018).

⁴⁰ Regional Seas programs covering Areas Beyond National Jurisdictions. UNEP. URL: http://www.un.org/Depts/los/biodiversityworkinggroup/Regional_seas_programmes_ABNJ.pdf (Accessed: 08 June 2018).

In the process of developing integrated ecosystem-based marine management for the Arctic Ocean, the Arctic states will have to solve the key challenges: how to overcome the sectoral nature of regulation and how to involve third states to comply with measures in areas beyond national jurisdiction. In our opinion, the experience of the OSPAR Commission is useful for the Arctic. OSPAR member states have taken the path of coordinating their activities with sectoral global organizations regulating maritime activities. E.g., in 2014, OSPAR and NEAFC — the regional RFMO in the North-East Atlantic, operating within the framework of the Agreement 1995 — signed an agreement on joint activities, incl. in areas beyond national jurisdiction. OSPAR is also actively trying to coordinate its efforts with IMO and ISA, as well as other organizations. However, as follows from the latest OSPAR reports, its activities are limited to non-binding documents. Memorandum of Understanding was signed with ISA⁴¹.

Coordination with the RFMOs, IMO, ISA and other global organizations can provide certain advantages for a regional organization. First, the legitimacy of establishing measures to protect the marine environment, especially beyond the limits of national jurisdiction, is strengthened. No one disputes the competence of organizations such as IMO and ISA to limit certain types of activities at sea. Secondly, due to the involvement of various sectoral mechanisms, the effect of synergy is created, solving the problem of sectorality. Achieving the synergy effect can be facilitated by the establishment of a common source of scientific data for all organizations (such a source could be, e.g., the ICES). Finally, thirdly, in this way a wide range of other states is involved in the compliance with ecosystem measures. It is evident that the representation of countries in global international organizations such as IMO and ISA is much higher than in any regional institution. In this sense, coordination with them gives the regional organization the possibility of indirect (direct impact will be a violation of international maritime law) impact on third countries that are not participating in these regional regulations.

The flip side of the coin is the difficulty of coordinating actions of states that are members of different international organizations if the decisions of the organizations are not correlated with each other. The study of Molenaar E.J. and Elferink A.G. gives such a hypothetical situation: should a state, being a party to the UNCLOS and at the same time a member of a regional institution that established a marine protected area on the seabed beyond national jurisdiction, vote in the ISA for approval of exploratory drilling, in accordance with the provisions of the UNCLOS and the rules of the Authority, in the same area? [15, Molenaar E.J., Elferink A.G., p. 19]

As a global mechanism for regulating the development of the resources of the Area and having the authority to protect ecosystems from the adverse effects of this type of activity, ISA will undoubtedly be involved in the creation of an integrated cross-border mechanism for the ecosystem management of the Arctic Ocean. Although there is a lot of time left before the formation of the boundaries of the Area in the Arctic, it is already evident that, along with other industry-specific

⁴¹ 2016 Status Report on the OSPAR Network of Marine Protected Areas. OSPAR. URL: <https://www.ospar.org/documents?v=37521> (Accessed: 08 June 2018).

global organizations, the Authority can make a significant contribution to this process. Since the leading platform for international cooperation in the Arctic is the Arctic Council, it is likely that in the future it will bear the primary responsibility for coordinating the efforts of the Arctic states with ISA and other international organizations. Perhaps, following the example of OSPAR, it is worth considering the option of concluding a memorandum of understanding or agreements with them.

Conclusion

The concept of the Area as a common heritage and ISA as an organization through which states implement the development of the resources of the Area is one of the key innovations of the Convention 1982. Despite the ongoing debate about the applicability of the provisions of Part XI of the UNCLOS that defines the framework for ISA's activities, it is evident today that all the coastal states in the Arctic have expressed their commitment to the UNCLOS. At the same time, four of the five countries (except the US) have already taken real action to the establishment of the outer limits of the extended continental shelf and its delineation with the Area in the manner prescribed by the Convention. In this situation, deviation from the conventional order will be associated with significant risks of an increase of conflicts in the Arctic.

Even though the limits of the Area in the Arctic have not yet been determined and its time horizon of its final form may stretch for decades, certain fields of the Authority's future activities in the High North can be traced. The role of ISA in the Arctic will be multifaceted. Its primary function is to regulate the exploration and exploitation of seabed mineral resources beyond the limits of national jurisdiction. However, scientific data on the reserves of the Arctic resources of the potential Area is currently scarce. Besides, current technologies do not allow extracting resources from deep-sea seabed areas in the harsh ice conditions of the Arctic.

Also, the Authority will be involved in the solution of other tasks. This concerns the implementation of the provisions of the UNCLOS on the development of resources of the continental shelf beyond 200 nautical miles, participation in establishing international scientific cooperation, distribution of scientific data, etc. Besides, in the mid-term, an important task of ISA is to participate in integrated cross-border and cross-sectoral ecosystem marine management in the Arctic.

References

1. Ujvari B. Vying for Sovereign Rights in the Central Arctic Ocean: Does the Law of the Sea Convention 1982 cope? *Spring*, 2012, Aarhus: Aarhus University, 20 p.
2. Michael Lodge. The International Seabed Authority and Deep Seabed Mining. *UN Chronicle. Volume LIV*, 2017, nos. 1 & 2, p. 1.
3. Egede E. Africa and the Deep Seabed Regime: Politics and International Law of the Common Heritage of Mankind. *Springer*, 2011, 305 p.
4. Guntrip E. The common heritage of mankind: an adequate regime for managing the deep seabed? *Melbourne Journal of International Law*, vol. 4, 2003, pp. 376–405.
5. Lodge M.W. The Common Heritage of Mankind. *The International Journal of Marine and Coastal Law*, 2012, no. 27, pp. 733–742.

6. Mezhdunarodno-politicheskie usloviya razvitiya Arkticheskoi zony Rossiyskoi Federatsii. [International political development of the Arctic Zone of the Russian Federation]. Ed. by A.V. Zagorskiy. Moscow, Magistr Publ., 2015, 304 p. (in Russ.).
7. Gudev P.A. Prioritety SSHA v Arktike. [USA priorities in the Arctic]. *Mirovaya ekonomika i mezhdunarodnie otnosheniya* [World economy and international relations], 2013, no. 9, pp. 49–60.
8. Vylegzhanin A.N., Dudykina I.P. Konvenciya OON po morskomu pravu i pravovoi rezhim arkticheskogo shelfa [Law of the Sea Convention and the legal regime of the Arctic shelf]. *International and European law*, 2017, no. 1, pp. 284–302. (in Russ.)
9. Arkticheskii region: problem mezhdunarodnogo sotrudnichestva: khrestomatiya. [Arctic region: problems of international cooperation]. Ed. by I.S. Ivanov. Moscow, Aspekt-Press Publ., 2013, vol. 3, 663 p. (in Russ.).
10. Lodge M.W. (2012) The International Seabed Authority and the Arctic. In: Wasum-Rainer S., Winkelmann I., Tiroch K. (eds) Arctic Science, International Law and Climate Change. Beiträge zum ausländischen öffentlichen Recht und Völkerrecht (Veröffentlichungen des Max-Planck-Instituts für ausländisches öffentliches Recht und Völkerrecht), vol 235. Springer, Berlin, Heidelberg. Pp. 175–188
11. Vasiliev A.V. Situatsiya v Arktike i osnovnye napravleniya mezhdunarodnogo sotrudnichestva v regione [Situation in the Arctic and the main issues of international cooperation in the region]. *Arkticheskii region: problem mezhdunarodnogo sotrudnichestva: khrestomatiya* [Arctic region: problems of international cooperation]. Ed. by I.S. Ivanov. Moscow, Aspekt-Press Publ., 2013, vol. 1, pp. 14–24 (in Russ.).
12. Byers M. *International law and the Arctic*. Cambridge: Cambridge University Press Publ., 2013, 314 p.
13. Chuprov V.A. Sozdanie mezhdunarodnoi okhranyaemoi prirodnoi territorii v otkrytom more Severnogo Ledovitogo okeana: perspektivy mezhdunarodnogo sotrudnichestva dlya Rossiiskoi Federatsii i drugikh arkticheskikh gosudarstv [Establishment of international marine protected area in the high seas of the Arctic Ocean: potential for international cooperation for the Russian Federation and other arctic states]. *The Arctic herald*, 2017, no. 1 (20), pp. 10–17. (in Russ.)
14. Gudev P.A. Perspektivy formirovaniya mezhdunarodnogo rezhima v Arktike [Prospects of development of the international regime in the Arctic]. *International Affairs*, 2014, no. 2, pp. 88–101. (in Russ.)
15. Molenaar E.J. & Oude Elferink A.G. Marine protected areas in areas beyond national jurisdiction The pioneering efforts under the OSPAR Convention. *Utrecht Law Review*, 2009, no.5 (1), pp. 5–20.