

INTERNATIONAL LAWS ON GOVERNANCE OF GLOBAL COMMONS: RELEVANCE FOR BANGLADESH

Md Atiqur Rahman^a

Abstract

Hugo Grotius, the father of international law, pioneered codifying laws on global commons in the 17th century and advocated global commons as common goods which was regarded as the heritage of mankind. The common resources are being explored on a ‘first come first serve’ basis as it was properties for all mankind. In modern days’ countries are increasingly getting involved in global commons resources. However, developed countries are arguably more capable than developing countries of exploring and exploiting common resources. United Nations, the regulatory body of the global commons, aims for the equitable sharing of resources for all humankind in light of the Sustainable Development Goals (SDGs). But the fact is, the Least Developed and most of the Developing countries find it challenging to engage in global commons. The study is based on content analysis. ‘The first come, first served’ policy of the United Nations allows the powerful countries to explore global commons with their technology, funds, and expertise. On the other hand, developing countries sometimes suffer from a double-edged sword as a victim of over-exploitation. Moreover, the new world order of multipolar political alignment after the Ukraine War became more challenging for state policy formulation. In this situation, organizations like the UN need to play a vital role in ensuring equitable share for the well-being of all humankind and protection from the curse of over-exploitation. Global commons exploitation and over-exploitation are highly relevant for Bangladesh to secure its economic, social, and environmental interests. Against this backdrop, this study examines the importance of a global commons governance system to ensure equitable share of resources for developing countries like Bangladesh. The study reveals that global commons are important for both the development and sustenance of a country like Bangladesh, as such, Bangladesh should strategize engagement in global commons governance with and for the development of the overall economy.

Keywords: International Law, Ocean Governance, Global Commons, Common Heritage of Mankind, Bangladesh

Introduction

Global Commons is a term typically used to describe international, supranational, and global resource domains in which common-pool resources are found. Traditionally, international law recognizes four global commons - the high seas, the atmosphere, Antarctica, and outer space (Buck., 1998). Global commons are those parts of the earth that fall outside national jurisdictions and to which all nations have access (United Nation, 2013). However, the advent of technology in the 19th century led countries to extend their reach beyond their border in various parts of the world. As a result, in the 20th century, international regimes' focus extended further toward areas of natural resources that remained beyond the limits of national jurisdiction.

The advancement of science and technology in recent years and the increased demand for resources are leading to activity in Global Commons on a broader scale. Two-thirds of the world's water mass is beyond any national jurisdiction, as declared by international law (Kaye, 2007). The maritime domain is heavily explored for transportation, fisheries, bioprospecting, navigation, scientific research, and the laying of submarine cables for high economic potential. Following the 2010 High-level Plenary Meeting of the General Assembly on the Millennium Development Goals, the United Nations Secretary-General established the UN System Task Team to support the UN system for the governance of Global Commons in the post-2015 UN development agenda. The governance of the global commons represents a specific aspect of global environmental governance. Stewardship of the global commons cannot be carried out without global governance (Foreign Affairs, 2020).

The 1982 United Nations Convention on Law of the Sea (UNCLOS) regulates the national and international jurisdictions on the sea. The International Seabed Authority (ISA) is set to organize, regulate, and control all mineral-related activities in the seabed for most of the ocean area beyond the limits of national jurisdiction. This has paved the way mostly for the developed countries and to a lesser extent for some developing countries to explore resources beneath the open ocean of global commons. The Least Developing and most of the developing countries could not engage in explorations for various reasons. They are suffering from the impact of climate change due to the excessive carbon emission. Bangladesh is one of the worst victims of climate change where governance of global commons matters.

Governance of Global Commons became necessary within the purview of international law under the United Nations principle of the ‘common heritage of mankind’. Due to the high initiative to explore Global Commons by developing countries, the ‘first come, first served’ is being followed under the international framework (Nico , 2016). However, this policy may lead nations to unscrupulous exploitation, which is likely to have a negative impact on human society at large, causing environmental problems. As a developing country and a low-lying delta, the governance of global commons is highly relevant to Bangladesh for development and survival. The global commons have vast and definite areas like the high seas, Antarctica, space, outer space, and the Arctic, out of which, the open ocean and Antarctica are considered as the immediate relevant area for the development and sustenance of Bangladesh. With this backdrop, the objectives of the paper are as follows:

- To study the genesis of international law on global commons governance.
- To study the international laws on the governance of the maritime domain of global commons.
- To examine the challenges of the exploitation of global commons for the developing and least developed countries under the United Nations' existing framework.
- To underscore the relevance of global commons governance for Bangladesh.

Methodology and Philosophy of Study

The study has been carried out based on content analysis on national and international instruments to reach a conclusion. The philosophy of this research is based on interpretivism through acceptable knowledge available on global commons. As such, the paper adopts a qualitative legal research methodology.

Genesis of the International Law on Global Commons

The genesis of international law on global commons can be traced back to old English and Dutch law. The law defined common goods as a tract of ground shared by the inhabitants of a village, and it does not belong to anyone but exists for the good of all (Jasper & Giarra, 2010). The term Global Commons originated from the concept of Common Goods that are non-excludable. During the age of sail, the Portuguese wanted to exercise the right to exclude others from entering or navigating through the Atlantic and Indian oceans. The Dutch first coined the maritime domain as common goods and defended the Portuguese claims with the concept of *mare liberum*, (Hugo, 1609) an idea advocating preserving freedom of

access for the benefit of all (Nico, 2016). The Dutch Jurist, Hugo Grotius, attempted to establish that the sea was common property, and not only the Portuguese but also other countries could not claim sovereignty over the sea. Grotius first considered air into this category as the common use of air was destined for all humans. Similarly, Grotius defined the sea to be common to all as it is limitless and cannot become in possession of anyone; instead, it is adapted for the use of all for navigation and fisheries. Grotius finally concluded that neither a nation nor an individual could establish any right of private ownership over the sea (Nico, 2016).

The high seas were freely accessed from the Grotius for traditional uses like freedom of navigation, fishing and commerce. The Grotius 'mare liberum' was explored as 'first come, first served' by the industrialist countries in the absence of a viable international regime prior formation of the League of Nations and the later United Nations (Nico, 2016). The advent of technology made it possible to explore profitably by the advanced industrialized countries since the 19th century. The 'first come, first served' has favoured developed countries as it has provided access and exploration right without limits for countries having capabilities.

The United Nations included the deep seabed, outer space (including the Moon and other celestial bodies), two Polar Regions, the atmosphere, the high seas, and the living resources therein as global commons. To prevent a 'first come, first served' regime, the Global South advocated the establishment of an international regime under the auspices of the UN for the preservation of common heritage of mankind 'for the benefit of all' and was presented in UN General Assembly in 1967 (Padro, 1967). In the 20th century, international regimes emerged in specific areas of global commons. The Fishery Regulation, UNCLOS, and Whaling Conventions were initiated by the United Nations. The Moon Agreement (1979) declared the Moon as the common heritage of mankind and the Outer Space Treaty (1967) declared celestial bodies as the 'Province of Mankind'. The UNCLOS also included the sea bed as the common heritage of mankind. The 21st century experienced a considerable rise in activities by primarily developed and developing economies. Following the 2010 High-level Plenary Meeting of the General Assembly on the Millennium Development Goals, the United Nations Secretary-General established the UN System Task Team to support the UN system for the governance of Global Commons in the post-2015 UN development agenda.

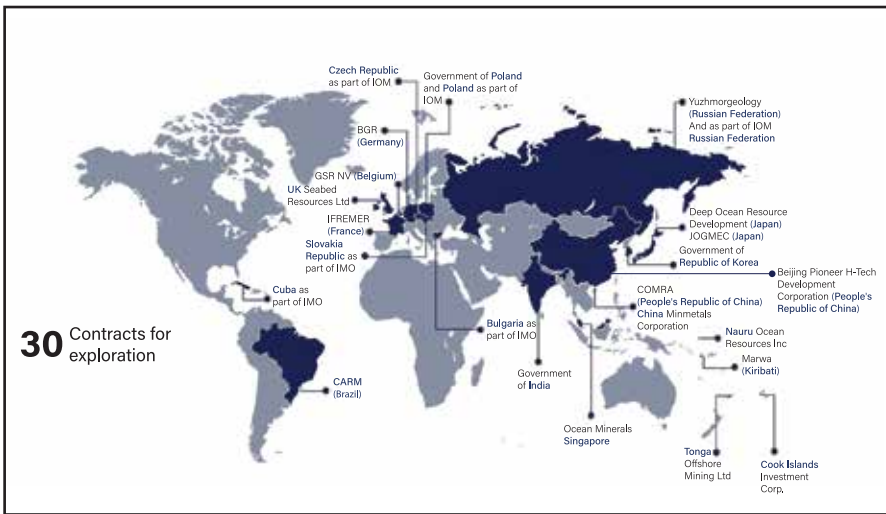
International Laws on the Governance of the Maritime Domain of Global Commons

After World War I, the League of Nations, being formally instituted in 1920, declared sea as a global common. Professor Jose Leon Suarez of Argentina, a member of the League of Nations Committee of Experts for the Codification of International Law, criticized the international regulation of the exploitation of the sea, opining that regardless of biological interests, the law of the sea was mainly to establish policing and to ensure reciprocity and commerce.

After World War II, for the governance of the ocean, the Convention on the Law of the Sea (UNCLOS) was initiated in 1958. The adoption of the UNCLOS in 1982 by the United Nations added a new perspective on jurisdiction over and uses of the sea. UNCLOS is regarded as 'A Constitution for the Ocean,'. The rights and jurisdiction regarding traditional use of the sea, like navigation, fishing, and extraction of living and nonliving resources are defined based on the different sea zones. This primary international treaty defines territorial boundaries, resource management, and states' rights within their exclusive economic zones. The UNCLOS came into force in 1994 and to date, the convention has been ratified by 167 countries (UN Treaty Collection, 2023). Though UNCLOS is regarded as the basis of governance of the global ocean on economic, security and environmental issues the law is not yet unanimously agreed upon by powerful states like the USA and China. The ITLOS, created by UNCLOS, is a legal platform to resolve disputes by States Parties. The USA being a superpower did not ratify the UNCLOS. The USA's position on UNCLOS and the difference of interpretation by China remains an impediment to the application of UNCLOS to the area of interests of superpowers which remains a cause of contentions in the South China Sea and adjoining area.

The starting point for the governance of seas was based on the principle of open access as *laissez-faire* treatment since the Grotius era and was regarded as the traditional freedom of navigation, international trade on the ocean, and freedom of fishing. The High Seas and deep seabed have traditionally been viewed as not subject to national appropriation. After 1945, this *laissez-faire* treatment was soon replaced by fisheries regulation 'by a recognition of the duty to have due regard to the rights of other states and the needs of conservation to the benefit of all' (Nico, 2016).

The deep seabed contains valuable mineral resources, particularly polymetallic or manganese nodules, which were beyond capacity to exploit in the eighteenth century. Based on this principle, under the United Nations Convention on the Law of the Sea, ‘The International Seabed Authority (ISA) was established to administer maritime global commons resources and promote marine scientific research. The ISA has issued 30 contracts to 22 countries worldwide to discover deposits of polymetallic nodules in the international deep seabed area Figure 1. This initiative includes 12 developing countries all around the globe (MAREX, 2020). But as a matter of fact, the list does not include any Least Developed or Under Developed country.



Source: MAREX, 2020

Figure 1: The Contracts of ISA to Explore Seabed

Maritime trade is essential for future sustainable economic growth. The IMO created in 1948, being part of the United Nations family, deals with a wide array of international shipping. It regulates international shipping design, construction, manning, safety and disposal to ensure green and sustainable maritime communication towards the 2030 SDGs (IMO, 2023). Maritime communication is considered the most common and important use of the High Sea. There is a positive correlation between the World GDP and World Maritime communications. Since 1970, every year global seaborne trade is increasing on an average by 3 percent. At this pace, global seaborne trade is expected to double by 2033 (United Nation, 2013). In 2010, about three-quarters of the import growth of developing economies took place in East and South Asia. The larger growth to both world GDP and seaborne trade is taking place in the developing countries.

A comprehensive Fish Stock Agreement was adopted in 1995 to prevent the over-exploitation of fish as a supplement to the Law of the Sea Convention. In addition, the UN's Food and Agriculture Organization adopted the Code of Conduct for responsible fishing in 1995. The code defines the conservation, management, and development of all fisheries and is to be observed by all states and non-state stakeholders engaged in fishing. The International Convention for the Regulation of Whaling, promulgated in 1946, focuses on regulated whaling for the interest of all world nations. This was aimed at safeguarding whale stocks for future generations as this species was threatened by the risk of extinction due to continued over-exploitation. As a result, the International Whaling Commission (IWC) imposed a ban on commercial whaling which came into effect in 1986.

The UN Convention on the Law of the Sea (UNCLOS) and Antarctic Treaty System (ATS) are regarded as the mechanism of ocean governance where International Tribunal for the Law of the Sea (ITLOS) and UN International Maritime Organization (IMO) functions as the forum of maritime governance. The implementation of the global commons' principle of the common heritage of mankind for the inclusive social development, economic growth, environmental sustainability, and peace and security need to be controlled and monitored by the international governance system (Foreign Affairs, 2022).

The SDG has 169 targets for sustainable development for the nations. The UN Task Team led by the Department of Economic and Social Affairs, and Development Program comprises senior experts from over 60 UN entities and international organizations and has been tasked to support the post-2015 consultation process with analytical input, expertise, and outreach regarding exploring Global Commons resources (United Nations, 2013). The UN SDG Goals are related to using global commons for food security and poverty alleviation, economic growth, building resilient infrastructure, promoting industrialization, fostering innovation, and exploiting marine resources.

Challenges for Developing Countries to Engage in Global Commons

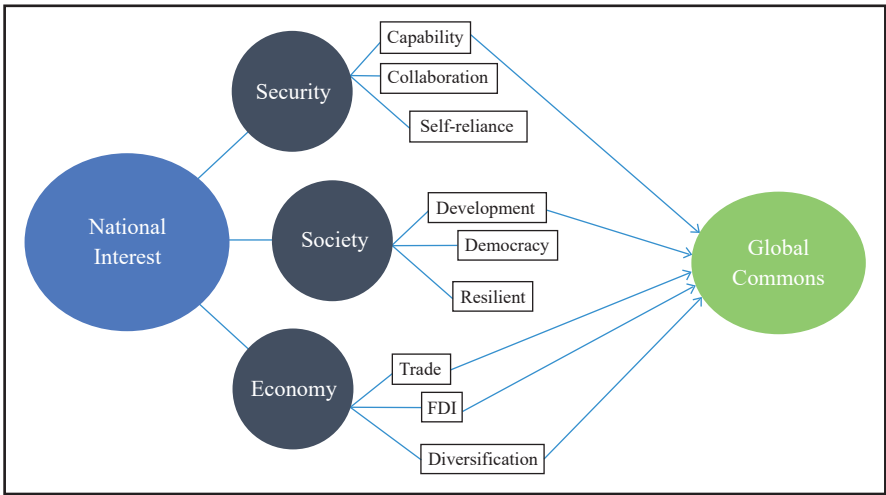
Explorations of global commons are significant for all countries in the present era (Rahman, 2022). Operation in the deep sea, Antarctica, and space are of a unique nature that needs enough research, specialized training, expertise, and special equipment. Though the global commons are open for all by law, most of the developing countries are severely lagging in capacity and capability regarding funds, technology, and expertise. The awareness of the potential of global

commons is also inadequate in developing and least developing countries. The government policy and focus are also not enough on these unseen resources. ‘The first come, first served’ policy of the United Nations offers boundless access to powerful countries to explore global commons with their technology, funds, and expertise. On the other hand, developing countries sometimes suffer as a victim of over-exploitation. Moreover, the new world order of multipolar political alignment after the Ukraine War became more challenging for state policy formulation. Though the Global South advocated for the redistribution of wealth in the United Nations some emerging countries from the Global South have become the polluter with the industrial countries. This also created a leadership gap for advocacy in the international forum for the Least Developed and Developing countries. The lack of capacity has made the first come first served policy challenging for developing countries to get an equitable share of the global common resources.

The ISA under the United Nations promotes and encourages technology transfer to developing states. ISA is committed to raising the participation of vulnerable countries through awareness building and endowment of funds for Marine Scientific Research, Internship programs, and Contractor Training programs (MAREX, 2020). The ISA is also developing an exploration policy so that benefits equated from the seabed can be shared by the developing countries, particularly for Small Island Developing States (SIDS), Least Developed Countries (LDCs), and Land Locked Developing Countries (LLDCs) in the Indian Ocean and Caribbean region. Furthermore, the UN has urged to enhance cooperation among countries with the ISA in capacity building and technology transfer to boost the Blue Economy (Rabab, 2020).

Relevance of Global Commons for Bangladesh

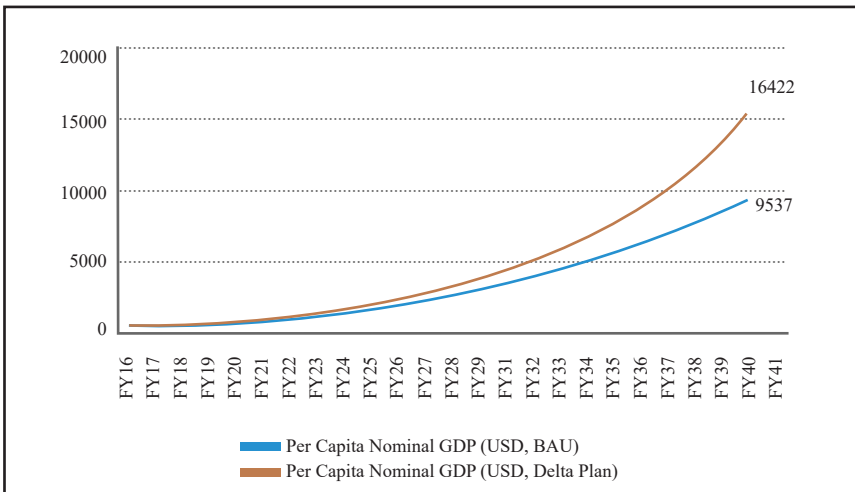
Exploration of resources in various domains of global commons positively correlates with the development status and GDP ranking of a country (Rahman , 2021). Bangladesh being a maritime nation has huge potential to promote a blue economy. The global commons are connected to resilience and development which in turn relate to self-reliance Figure 2. The national interests of Bangladesh are connected to global commons in multiple dimensions like trade, and resource extractions both living and non-living. Ninety percent of the trade is routed through the sea. The Bay of Bengal is rich in fish and minerals.



Source: GRP, 2021

Figure 2: The Confirmatory Factor Model of National Interest vis-à-vis Global Commons

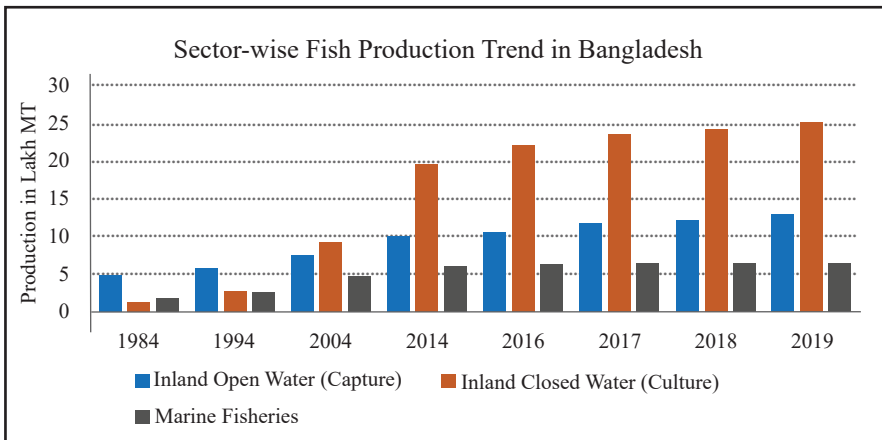
The Bangladesh Perspective Plan aims to make Bangladesh a developed country by 2041, with an expected per capita income of around USD 4,376 in FY 2031 and USD 16,422 in FY 2041 Figure 3. Maritime global commons resources exploration may be a booster to attain the economic goal of Bangladesh.



Source: Bangladesh Delta Plan 2100

Figure 3: Per Capita Nominal GDP Forecast (in USD)

Deep-sea fishing is mainly carried out on the High Seas, which are part of the Global commons. The Bay of Bengal is a silver mine for the colossal living resource reserve. The deep-sea fishing potential is yet to be explored by Bangladesh. Yearly fish catch in the Bay of Bengal is 6 metric ton, while Bangladesh catches only 0.29 metric ton (Hasan, 2014). Bangladesh was the fifth-biggest aquaculture producer in 2018, as per the Food and Agriculture Organisation (FAO) report. Bangladesh was the eighth top fish-producing country in the world in 2019 (Rahman B, 2020). Yet, the country lacks deep-sea fishing. In 2019, aquaculture accounted for 56% of total fish production, whereas marine fisheries were only 15.31% Figure 4. Experts opine that the country has great potential in marine fisheries and aquaculture in deep water, which can substantially contribute to economic progress. Around 70000 fisheries boats are used for fishing, primarily wooden built, and exploring only 20-25 km of the sea. There are about 250 metal-body fishing trawlers whose reach is up to 40 km only (GRP, 2021). Whereas, Bangladesh has the opportunity to fish in the limitless high seas beyond EEZ.

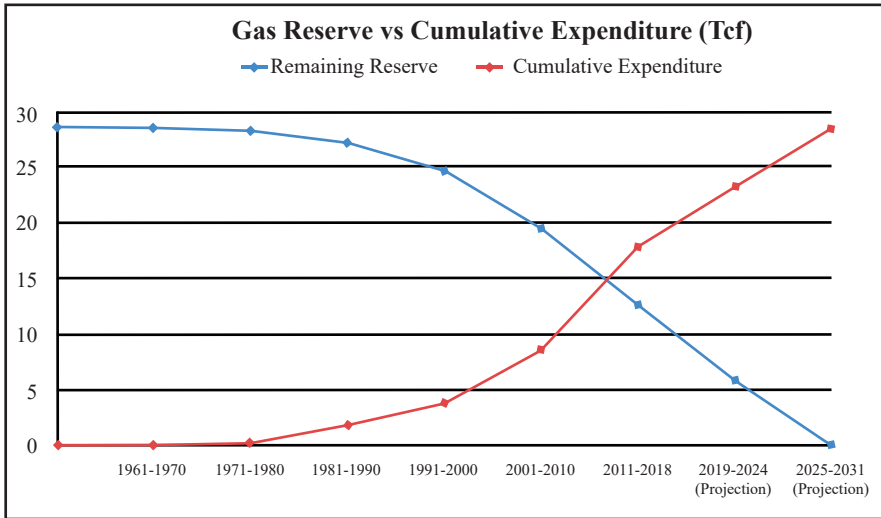


Source: Yearbook of Fisheries Statistics of Bangladesh, 2021

Figure 4: Production of Fish in Bangladesh

Bangladesh is heavily dependent on imports for energy. The inflation and price hike of oil and gas caused by the Ukraine war revealed the impact of dependency on importing oil and gas. Energy is one of the key drivers in development. About 70% of energy demand is met by natural gas. Petroleum products account for about 22% of commercial energy supply. Liquid fuel is mainly imported, whereas only 6% is produced from gas condensate. The country will depend more than 90% on imported energy sources by 2030 (BN, 2020). With the increasing demand, by 2030, Bangladesh's gas reserve will become zero

Figure 5. Hence, Bangladesh needs to look towards offshore energy sources to meet its future demands.



Source: www.lightcastlebd.com/insights/2022/04/lng-price-volatility-and-its-impact-on-bangladesh/

Figure 5: Cumulative Gas Expenditure and Remaining Reserve in Bangladesh

The deep-sea area of the Bay of Bengal is rich in mineral resources, and multinational companies are already engaged in the Bay of Bengal. In recent years, the Mahanadi basin of India, the adjacent offshore areas to the west, and the Rakhine basin of Myanmar to the east of Bangladesh have registered significant new gas discoveries. Both the basins have a common sharing area with Bangladesh. A joint survey by the US, Japan, and India discovered the world's largest natural gas hydrate reserve, an ice-like combination of natural gas and water in the Bay of Bengal, and for the first time, it has economic viability for production (USGS Report, 2016). The amount of gas within the world's gas hydrate accumulations is estimated to significantly exceed the volume of all known conventional gas resources. There are large reserves in the Surma basin area, the greater part of the subaerial delta, and the southern offshore regions of Bangladesh. Besides thermo genic gas, India is the first Asian country outside the USA and Canada to discover biogenic gas popularly known as 'Shale gases' in a geothermal gradient of the BoB (Ahmed, 2014). The Manganese nodules of 40 different materials, including copper, aluminum, manganese, iron, cobalt, and nickel, are widespread in the BoB (Hasan, 2014). Bangladesh being a Bay of Bengal littoral, has not attempted to explore resources from the sea beyond its

EEZ. Bangladesh needs to formulate a strategy for the explorations of resources from the maritime global commons.

Threats from the Global Commons to Bangladesh

Sea level rise is a threat to all coastal countries and is severe to the delta-like Bangladesh. If the sea level rises only three feet, almost 20% of Bangladesh will submerge and displace more than 30 million people. If the rise is five to six feet, as projected by some scientists will displace perhaps 50 million people (Robert, 2017). Wealthy countries have generated most of the greenhouse gases that are harming Bangladesh. As per the German Watch’s 2021 Global Climate Risk Index, Bangladesh ranks seventh on the list of countries most vulnerable to climate devastation. Greenhouse gas emissions in the atmosphere, the temperature rise, ice melting in Antarctica, and sea level rise and its impact are associated with the global commons. Bangladesh needs to be aware of and monitor the sea level rise and be proactive in the global commons administration and governance system to mitigate the impact. Antarctica is important for research on



Source: Scientific Base in Antarctica, 2020

Figure 6: Stations in Antarctica-Global Nations

sea level rise, where Bangladesh like other Asian countries may place footsteps for real-time monitoring.

Activities for Antarctica are regulated by the Antarctic Treaty system, which entered into force in 1961. Due to ecological, economic, and political reasons, Antarctica, as a part of the global commons, has attracted international attention in recent years. Access to those resources is of strategic importance for the developing nations. There are 70 permanent research stations from 30 countries drawn from around the world in Antarctica. Signatories of the Antarctic Treaty are allowed to maintain their station in Antarctica, seasonal or yearly. Antarctica has no indigenous habitat, but the seasonal staff from the member countries stay in the station. In the summer to winter, the personnel varies from 1000 to 4000. Some countries, like Germany, Australia, Belgium, Chile, France, Argentina, and Italy, maintain permanent stations in Antarctica. Among the Asian countries, China, India, and Pakistan have research stations in Antarctica. China has a vast program in Antarctica and presently operates four stations with the 5th station set by 2022 (Sen, 2019).

Scientific research in Antarctica primarily aims to understand global environmental issues, including climate change, ozone depletion, and sea level rise and its effects. The research stations are also being used as a platform to study the upper atmosphere and space. Comprehensive environmental protection for Bangladesh falls under the vital category of national interest as it poses a grave threat to the country's existence (Syed, 2022). Antarctica functions as a binocular for sea level rise. Bangladesh is not yet a member of the Antarctic Treaty System. Bangladesh needs to formulate a comprehensive strategy for engagement in Antarctica if not for economic gain at the moment but at least to safeguard the existence of the landmass from being submerged due to sea level rise.

Conclusions

Global commons resources are the common pool of resources for the entire mankind since the Grotius era. Nations had free access to resources for traditional use like fishing, trade and commerce. In the nineteenth century due to the absence of any regulatory body developed countries explored global commons resources on a first come first served basis. The advent of technology allowed developed countries to explore global commons resources and become economically benefitted. After the formation of the League of Nations and later on the United Nations the global commons resources are regarded as the common

heritage of mankind and various regimes were enacted to govern the global commons for sustainable use.

The Global South leadership advocated the use of global common resources for the benefit of Least Developed and developing countries. Some developing countries like China and India are increasingly getting involved in the global commons. But most of the Least Developed countries are unable to use global commons because of their obvious lack of funds, technology, and leadership.

The United Nations after the Preliminary meeting in 2015 set a task team to suggest an action plan to support the Least Developed and Developing countries to achieve SDGs. The UN has set goals for an equitable share of global commons for the economic growth of Least Developed and developing countries. The International Sea Bed Authority Action Plan aims to bring the seabed resources for the benefit of all but due to fund, technology, and training shortages, the effort of ISA is limited within the capable countries only and is yet to play a significant role for developing countries. As such, the prevailing governance framework of Global Commons needs to be more prudent to ensure equitable shares for developing and Least Developing countries.

Most of the underdeveloped countries are not aware of the potentiality of global commons. Developing countries must increase awareness of the potentiality of global commons resources and formulate viable policies and strategies to become part of global governance. This will facilitate engaging in a collaborative approach to global commons exploration. Developing an efficient organizational structure seems essential to partner with international agencies. This may help to overcome the impediments like technology, expertise, workforce, and funds. Developed countries may also come forward with the spirit of the United Nations to build partnerships with the developing states to ensure an equated share for all.

Bangladesh, a maritime nation thriving for developed country status from the middle income developing country, needs enormous resources to diversify its economy where global commons offer a bounty. The Bay of Bengal, as a gateway to the maritime global commons, is rich in terms of living and nonliving resources in her sea zones which continues in the open ocean as well. But as a matter of fact, till now Bangladesh could exploit very little of its abandoned resources at sea. On the other hand, Bangladesh ranks seventh on the list of countries most vulnerable to climate devastation in the 2021 Global Climate Risk Index. The excessive carbon emission by the developed and some developing countries causes ozone

layer depletion, temperature rise in Antarctica and sea level rise. The wealthy countries are exploiting global commons and becoming the cause of suffering for the Least Developed countries. Bangladesh is one of the worst sufferers in this aspect. As such, global commons administration is vital for Bangladesh not only for development but also for sustenance. Particular strategy formulation and timely execution may reap benefits and reduce risk from the global commons.

References

- United Nations. (1995). *Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks*, New York, 4 August 1995, entered into force on 11 December 2001 (2167 UNTS 3).
- Ahmed, S. (2014). Bangladesh Delta Plan 2100.
- BN. (2020). *Bangladesh Navy Vision 2041 Document*. Dhaka: Enlighten Vibes.
- Buck, S. J. (1998). *The Global Commons: An Introduction*. Washington: Island Press.
- Exploration and Exploitation of Maritime Resources of Bangladesh: Implication for National Development. (2013). *NDC Journal Bangladesh*, 13(1), 55–74.
- Hasan, M. (2014). Maritime Verdict and Avenues of Resource Exploration for Bangladesh. *BIISS Journal*, 35(3), 227-240.
- Foreign Affairs. (2022, September 30). Global Commons.
- Hugo, G. (1609). Freedom of the Seas.
- International Convention for the Regulation of Whaling. (1946). Washington. 2 December 1946; entered into force on 10 November 1948; 161 UNTS 72.
- IMO. (2023). Introduction to IMO.
- Jasper, & Giarra. (2010). *Securing Freedom in the Global Commons (1st ed.)*. Stanford: Stanford University Press.
- Kaye, S. (2007). Threats from the Global Commons: Problems of Jurisdiction and Enforcement. *International Law Studies*, 83, 69-81.
- Majumdar, M. (2021). The Opportunity of The Global Commons and Its Security Implications: Bangladesh Perspective. *GRP of AFWC 2021, NDC Bangladesh*.
- MAREX. (2020). Twenty-Two Countries Searching for Seafloor Minerals.

- Nico, S. (2016). Managing the global commons: Common good or common sink? *Grotius Centre for International Legal Studies, Leiden University, The Netherlands, Routledge Journal, Third World Quarterly*, 37(7), 1252–1267.
- Pardo, A. (1967). The Common Heritage. Speech at UN General Assembly Official Record.
- Puneet, B. (2020, December 4). Strategic Power Play in the Arctic. *Indian Naval Dispatch, 1(1)*, Indian Navy Journal.
- Planning Commission. (2020). *Perspective PLAN 2041, Making Vision 2041 a Reality PERSPECTIVE PLAN OF BANGLADESH 2021-2041*. GED under Planning Minister.
- Rahman, A. (2021). An Analysis on the Exploration of Global Common Resources: Relevance for Bangladesh. *Navy Journal*, 7, ISSN:2307-0021, Banani, Dhaka.
- Rabab, F. (2020). Draft ISA Marine Scientific Research Action Plan.
- Rahman, B. (2020, September 7). Bangladesh's Progress in Fisheries Sector. *Daily Sun*.
- Ramel, F. (2014). Access to the Global Commons and Grand Strategies: A Shift in Global Interplay. *Etude de l'IRSEM, October*.
- Research S. (2020). Research Stations in Antarctica.
- Satellite. (2020). Retrieved from <https://en.wikipedia.org/wiki/Satellite#searchInput>.
- Shackelford, S. (2019). The “Global Commons” of Outer Space is Turning into a Battlefield.
- Sen, W. (2019). China's Antarctic Administration and Program.
- Shackelford, S. (2019, January 18). The Future of Frontiers. *Lewis & Clark Law Review. Kelley School of Business Research Paper No. 19-12*.
- Syed, M. (2022). The Mission Worth Striving For: A Realist's Approach To Hoist Bangladesh's National Flag In Antarctica. *Ndc E-Journal*, 2(1), 35-57.
- Tim, F. (2020). 2020 is the year of \$1 Trillion Space Economy. Retrieved from <https://qz.com/1774249/2020-is-the-year-of-the-1-trillion-space-economy/>.
- United Nations. (2012). Trade And Development Report 2012. Retrieved from https://unctad.org/system/files/official-document/tdr2012_en.pdf.
- United Nations. (2013). Global governance and governance of the global

commons in the global partnership for development beyond 2015. New York: United Nations.

United Nations Convention on the Law of the Sea (UNCLOS). (1982). Montego Bay, 10 December 1982; entered into force on 16 November 1994; UN Doc. A/CONF.62/122 (UNCLOS); 1833 UNTS 3; 21 ILM 1261 (1982).

United Nations Conference on Trade and Development (UNCTAD). (2013). Review of Maritime Transport 12. Retrieved from http://unctad.org/en/PublicationsLibrary/dom2013d1_en.pdf.

United Nations. (2017). General Assembly Resolution 72/249. Retrieved from <https://www.un.org/bbnj/>.

United Nations Conference on Trade and Development (UNCTAD). (2017). Review of Maritime Transport 17. Retrieved from http://unctad.org/en/PublicationsLibrary/dom2017d1_en.pdf.

UN Treaty Collection. (n.d.). Retrieved from https://treaties.un.org/pages/ViewDetailsIII.aspx?src=TREATY&mtdsg_no=XXI-6&chapter=21&Temp=mtdsg3&clang=_en.

USGS Report. (2016). Large Deposits of Potentially Producibile Gas Hydrate Found in Indian Ocean. Retrieved from <https://www.usgs.gov/news/large-deposits-potentially-producibile-gas-hydrate-found-indian-ocean>.

UNCTAD. (2017). Maritime Transport Review. Retrieved from <https://unctad.org/publication/review-maritime-transport-2017>.

World Bank. (n.d.). Country and Lending Groups. Retrieved November 7, 2020
Yearbook of Fisheries Statistics of Bangladesh.