INDIA AND THE ARCTIC:

Analysing the International Treaty Law framework applicable in the Arctic and ascertaining India's State Practice

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Abstract-

India's involvement in the Arctic has been gaining momentum for the past decade and a half. When India became the Observer of the Arctic Council, it was seen as the formalization of India's engagement with the Arctic and its policy shaping body. India's interaction with the Arctic has been studied from the lenses of Strategic affairs, economic and scientific interests but a study from the lens of International Law has not been widely documented yet. This paper documents the past, present and the future of India's interaction with the Arctic in context of International Law and Policy issues prevalent in the Arctic. This study shall be performed by analysing the existing International Law framework operating in the Arctic and issues therein from India's perspective. Such a study is necessary to remove past inconsistencies present among official Indian policy statements and views of Indian authors and the aim of this paper is to ascertain India's state practice in the issues of international law affecting Arctic law and Policy and set up the grist vis-a-vis International Law for its white paper on the Arctic which is consistent with its state practice. This paper also attempts to assess the risks the Arctic possesses particularly for India and what should India's Arctic navigation path look like.

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Sincerely to the whole of humanity and consciousness

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Abbreviations:

AC – Arctic Council

ACAP – Arctic Contaminants Action Program

ACGF – Arctic Coast Guard Forum

AEC – Arctic Economic Council

AEPS – Arctic Environment Protection Strategy

AMAP – Arctic Monitoring and Assessment Program

AMBI – Arctic Migratory Birds Initiative

AOR – Arctic Ocean Region

APMs – Associative Protective Measures

ARLS – Agreement on Reciprocal Logistics Support

ATCM – Antarctic Treaty Consultative Meetings

ATCP – Antarctic Treaty Consultative Parties

BC – Black Carbon

CAFF – Conservation of Arctic Flora and Fauna

CAGIO – Circumpolar Advisory Group on Ice Operations

CLCS – Commission on Limits of the Continental Shelf

IMO – International Maritime Organization

DE – Design & Equipment

DNV – Det Norske Veritas

EAEU – Eastern European Economic Union

EC – European Commission

EEZ – Exclusive Economic Zone

EPPR – Environment Protection, Prevention and Response

FPZ – Fisheries Protection Zone

FTA – Free trade Agreement

GBS – Goal Based Standard

HFO – Heavy Fuel Oil

IAMSAR – International Aeronautical and Maritime Search and Rescue

ICAO – International Civil Aviation Organization

ICC – Inuit Circumpolar Council

ICJ – International Court of Justice

IMCO – Inter-Governmental Maritime Consultative Organization

IMO – International Maritime Organization

INSTC – International North South Transport Corridor

IOR: Indian Ocean Region

IOs: International Organizations

IONS – Indian Ocean Naval Symposium

IORA – Indian Ocean Rim Association

ISA – International Seabed Authority

ITLOS – International Tribunal for Law of the Sea

IUU – Illegal, Unregulated and Unauthorized

LOS – Law of the Sea

MARPOL – International Convention for the Prevention of Pollution from Ships

MEA – Ministry of External Affairs

MEPC – Marine Environment Protection Committee

MOPPR – Marine Oil Pollution Preparedness and Response

MoU – Memorandum of Understanding

MSC – Marine Safety Committee

NEAFC – North North-East Atlantic Fisheries Commission

NEP – North East Passage

NLS – Noxious Liquid Substances

NMs – Nautical Miles

NPFC – North Pacific Fisheries Commission

NRK - Norsk Rikskringkasting AS

NSR – Northern Sea Route

NWP – North West Passage

OWG – Outside Working Group

PACER – Polar Science and Cryosphere

PPR – Pollution Prevention and Response

PRV – Polar Research Vehicle

PSSA – Particularly Sensitive Sea Area

PWOM – Polar Water Operations Manual

ROs – Regional Organizations

RRFP – Regional Reception Facilities Plan

SACEP – South Asia Co-operative Environment Programme

SAOs – Senior Arctic Officials

SAR – Search and Rescue

SOLAS – International Convention on Safety of Life at Sea

SRS – Ship Reporting System

STCW – International Convention on Standards of Training, Certification and Watchkeeping for Seafarers

TFSR – Task Force on Search and Rescue

UN – United Nations

UNCLOS – United Nations Convention on the Law of the Sea

VCLT – Vienna Convention on the Law of Treatise

VTS – Vessel Traffic System

WTO – World Trade Organization

Table of Contents

Chapter 1 Introduction:

India's engagement with the Arctic has been examined in the existing literature predominantly from the lenses of international relations, strategic affairs, and commercial interests. However, there has been limited engagement with India's stance towards Arctic law and policy from an International Law perspective. There are very few comprehensive academic studies which have documented India's actual state practice, both domestic and international, towards issues of Arctic law and policy, or India's broader attitudes and approaches towards international law and the Arctic. In the past there have been some inconsistencies among the Indian authorities and academicians regarding the interpretation of Arctic under international law and India's role therein. Some authors seem to have held revisionist aspirations[1] for India that it should not join the AC and hence reject the sovereignty of the Arctic states over the Arctic and instead push for a 'global commons' in the Arctic, similar to the Antarctic treaty.[2] Indian authorities seem to have overlooked the applicability of the law of the sea convention in the Arctic.[3] Subsequently the works of Indian academicians started to be in consonance with developments in the Arctic regime suggesting India steer away from advocating for an Arctic commons. Instead, India started featuring in their works as being scientifically important to the arctic to tackle global climate change.[4] However some authors still hope for an additional framework for the Arctic[5] despite the Arctic states declaring that the existing framework in the Arctic is sufficient to govern it and that no additional framework is required.[6] A need has been felt by academicians for India to have its arctic policy and in absence of such a policy India is considered as a passive player with a policy of merely 'wait and watch'.[7] The ultimate aim of this thesis is to ascertain India's state practice in the issues of international law affecting Arctic law and Policy and set up the grist vis-a-vis International Law for its white paper on the Arctic which is consistent with its state practice. This paper also attempts to find possibilities of convergence in approaches to tackling regional legal issues between the Indian Ocean Region (IOR) and the Arctic Ocean Region (AOR) and learning from one another's experiences.

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[1] P. Whitney Lackenbauer, 'India and the arctic: revisionist aspirations, arctic realities' (2017) 8 Jindal Global Law Review 23, 37.
[2] Shyam Saran, 'India's stake in Arctic cold war' (*The Hindu*, February 01 2012) available at: https://www.thehindu.com/opinion/op-ed/Indias-stake-in-Arctic-cold-war/article13290404.ece accessed 11 April 2021.
[3] Ministry of external affairs government of India, 'India and the Arctic' (*Ministry of external affairs government of India* June 10, 2013) available at: https://mea.gov.in/in-focus-article.htm?21812/india+and+the+arctic accessed 12 April 2021.
[4] Devikaa Nanda, 'India's Arctic Potential', ORF Occasional Paper No. 186, February 2019, Observer Research Foundation 1-13.
[5] Id at 13.
[6] Ilulissat declaration 2008.
[7] Anuradha Nayak, 'Himadri and the Global Politics of Melting Ice: India's Arctic Presence and the March towards Global Governance' (2013) 5 Yearbook of Polar Law (Brill) 651.

Chapter 2 Scope, purpose, objectives, and research methodology:

Purpose of this paper: the purpose of this paper is to understand the past, present and future of India's engagement with Arctic law and policy framework.

The objectives of this paper: to achieve its purpose, the paper delves into the existing dimensions of International treaty law framework applicable in the Arctic wherein India interacts with those provisions either substantively or incidentally on a domestic, regional, or international level. A study of the Arctic International Treaty law framework from India's perspective is necessary to remove past inconsistencies and lay the groundwork for future vision. It is also important to determine Indian state practice vis-a-vis the Arctic to make sure no inconsistencies arise in the future and its statements and policies are not contrary to its state practice. India's advent in the Arctic also brings considerable challenges and practical risks that should be comprehensively assessed and managed. Also that the future of India's interaction with the Arctic is founded on an informed and thoroughly assessed International Arctic Law and policy framework.

Research Methodology: An overall assessment of India's approaches towards Arctic law and policy will be attempted, having recourse to both primary sources and secondary sources. Doctrinal methodology, involving a deep study of the existing legal framework and supplemented by scholarly works, shall be adopted. No quantitative or empirical research shall be conducted for this work. To ascertain India's domestic practice, reliance shall be placed on Indian parliamentary debates and questions, legislations, executive policy statements, foreign ministry records and court judgments. Ascertaining India's international state practice will involve an in-depth study of the relevant international legal framework, and official statements and positions asserted by India in international fora which reflect India's state practice on the issues of concern to the present work. Further, secondary literature such as books, research, and policy papers, reports etc. shall be consulted and referenced extensively throughout the work.

Scope of this paper: Even though for the purposes of convenience, state practice has been divided into domestic and international, it is impossible to segregate and analyse them separately. It is the overall state practice of a country that gives us an idea about its outlook and dispositions on matters of international law relevant in the arctic. State practice under each chapter would reflect India's relevant practice under: i) applicable International laws ii) agreements and interactions between India and other state/s, India and International Organizations (IOs)/Regional Organizations (ROs) or between IOs/ROs and ROs/IOs iii) domestic law and policy framework iv) proceedings before National and international courts and tribunals not necessarily involving India but relevant subject matter.[8] In addition to the state practice, writings of scholars and experts will also be cited to explain and stress upon a particular standpoint.

[8] This concept of categorization into four categories is taken from a source and then has been built upon to make it relevant to the present paper. Source: MOM Ravin, 'Law of the Sea Maritime Boundaries and Dispute Settlement Mechanisms', United Nations-The Nippon Foundation Fellow Germany, March-December 2005 p 48. Available at: https://www.un.org/Depts/los/nippon/unnff_programme_home/fellows_pages/fellows_papers/mom_0506_cambodia.pdf accessed 11 April 2021.

Chapter 3 An overview of India's domestic state practice on issues of Arctic Law and policy:

For the present purposes, domestic State practice has been determined to consist of the official practice of the three branches of the Indian State – legislative, executive, and judicial. At the outset, it is relevant to undertake a survey of India's domestic State practice towards issues of Arctic law and policy to assess the relevance of and extent to which such issues have been officially considered by India over the years. Such an exercise would help ascertain how far India has factored in the Arctic and its related issues in its domestic and foreign policy. This would lay the foundations for the study of India's State practice internationally and its stake in the international law architecture governing the Arctic, which would be the focus of the subsequent chapters.

Legislative: Either for giving effect to its relevant international obligations in this regard, or for any other related aspects, India, currently, does not have a legislation regarding the Arctic. The parliamentary system in India provides for parliamentary scrutiny over executive functioning by means of parliamentary committees. Issues of Arctic law and policy are per se not high priority areas of the relevant government departments in India, yet some issues relating to the Arctic have been discussed in parliamentary committee meetings. Such matters have most prominently figured in discussions in the committees dealing with scientific research and the environment, particularly the Parliamentary Standing Committee on Science & Technology, Environment, Forests and Climate Change, which is responsible for scrutinizing the work of, among others, the Ministry of Earth Sciences. In the context of the Arctic, one of the long-standing issues that this Committee has been flagging is the slow progress made towards the acquisition of a Polar Research Vehicle (PRV) under the government's Polar Science and Cryosphere (PACER) program.[9] Issues relating to India's engagement with Arctic law and policy have also been highlighted in parliamentary questions addressed by legislators of both Houses of the Indian Parliament to the various Ministries and Departments of the Government of India. For instance, questions have been addressed over the years seeking details from the government about India's position at the Arctic Council[10], about the exploration efforts and investment made by Indian oil and gas companies in the Arctic region[11], and even about potential territorial claims over Arctic territory.[12] India's scientific research endeavours in the Arctic region and India's quest to procure the use of icebreakers have also been the subject of various parliamentary questions over the years.[13]

Executive: The executive state practice of India towards the Arctic has consisted of contradictions. The ministry of external affairs of India (MEA) policy statement on the Arctic first recognizes the sovereignty of the circumpolar Arctic countries over Arctic, but later goes

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[9] 332nd Report, Demands for Grants (2020-2021) of the Ministry of Earth Sciences, Department-Related Parliamentary Standing Committee on Science & Technology, Environment, Forests and Climate Change, Parliament of India, Rajya Sabha (Presented to the Rajya Sabha on 6th March 2020).

[10] Lok Sabha, the lower house (house of the people) of the Indian parliament, Unstarred Question No. 3991, 6 August 2014.

[11] Lok Sabha, the lower house (house of the people) of the Indian parliament, Unstarred Question No. 1741, 2 March 2020

[12] Lok Sabha, the lower house (house of the people) of the Indian parliament, Unstarred Question No. 2005, 9 March 2016

[13] See for example Lok Sabha, the lower house (house of the people) of the Indian parliament, Unstarred Question No. 1389, 4 March 2015, Lok Sabha, Unstarred Question No. 4883, 13 August 2014.

on to draw an analogy to 'global commons' vis-à-vis the Arctic.[14] The ministry issued a Draft Arctic Policy in 2021 and invited public consultations on the same, but the same has been inaccessible since then.

Judicial: As far as the judiciary in India is concerned, it has never adjudicated a matter concerning the Arctic.

[14] Supra note 3.

Chapter 4 International Treaty law framework in the Arctic and India:

This is the most important and nuanced chapter of the paper. Under this chapter the author has dived deeply into major Arctic Law and policy issues and India's state practice on those issues. Even though the said issues extend beyond the ones covered here, the scope of this paper is limited to the issues with which India interacts at some level and hence Indian state practice can be ascertained.

Section 4.1 A brief introduction to International Treaty Law:

As an introduction to the chapter, it would be relevant to delve a bit into the meaning and functioning of International Treaties. There is no better place to look than 'the treaty on treaties'[1], the Vienna Convention on the Law of Treaties 1969. Article 2 (1) (a) of the convention defines treaties as:
" 'treaty' means an international agreement concluded between States in written form and governed by international law, whether embodied in a single instrument or in two or more related instruments and whatever its particular designation". Applying reductionism to this definition, we see that the critical elements of significance to the current paper are, 'an international agreement', 'concluded between states', and 'governed by international law'. The international nature of an agreement is prerequisite for it to be called a treaty. The scope of the agreement should be beyond the jurisdiction of a single state and should have some international element to it. Even though the definition mentions only states, paragraph 11 of the preamble to the Vienna Convention on the Law of Treaties between States and International Organizations or between International Organizations 1986 notes that "international organizations possess the capacity to conclude treaties, which is necessary for the exercise of their functions and the fulfilment of their purposes".[2] Even though the 1986 convention is not in force, its substantive provisions are accepted as the applicable international law.[3] Hence we see that an entity possessing an international legal personality which is a subject of international law can enter into treaties with other subjects of international law. The most pondered upon part of the definition is the intention of such an agreement to create obligations under international law. Without attributing intention of creating obligations under international law, an agreement would not be recognized as a treaty. How this intention is attributed has been an issue of eternal debate among the scholars, academicians, and practitioners alike and it is beyond the scope of this paper to delve into it. [4]

Section 4.2 A brief introduction to Law of the Sea convention:

Before delving into the Law of the Sea (LOS) convention issues in the Arctic and India's stance on them, it would be a good idea to have a peripheral look into the Law of the Sea convention and its relevant provisions. Also known as the constitution of the Seas, The United Nations Convention on the Law of the Seas (UNCLOS) which came into force in 1994. It is "an international treaty that provides a regulatory framework for the use of the world's seas and oceans, *inter alia*, to ensure the conservation and equitable usage of resources and the marine environment and to ensure the protection and preservation of the living resources of the sea.

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[1] Anthony Aust, *Modern Treaty Law and Practice* (2nd edition, Cambridge University Press, Cambridge 2007) p 6.
[2] Id p 398.
[3] Supra note 1 at p 400.
[4] Supra note 1 at pp 16-21.

UNCLOS also addresses such other matters as sovereignty, rights of usage in maritime zones, and navigational rights".[5] The convention consists of seventeen parts and nine annexes. The relevant parts for the purpose of this chapter are i) Part II to Part XI concern with "the different maritime zones: territorial sea and contiguous zone, straits used for international navigation, archipelagic waters, the exclusive economic zone, the continental shelf, the high seas, the International Seabed Area, and special provisions on the regime of islands and of enclosed and semi-enclosed seas". ii) Parts XII to XIV are about "specific marine activities and questions in all areas: the protection of the environment, marine scientific research, and the development and transfer of marine technology". iii) Part XV and annexes 5 till 8 concern the settlement of disputes.[6]

In terms of jurisdiction, Parts II to VI deal specifically with the question of areas of national jurisdiction whereas the later parts deal with the common heritage of mankind i.e., the principles and regulations governing the seabed and ocean floor beyond national jurisdictions. The convention also set up judicial, quasi-judicial and legislative bodies to enunciate, adjudicate and navigate eventualities generated from the application of the provisions of this treaty. The International Sea-Bed authority (ISA) was established to regulate the exploration and exploitation of the Area. It functions through a supreme policy making body, general assembly (akin to the board of directors of a public company[7]) and a council (functioning as an executive committee[8]) and has the power to not only regulate commercial seabed activities but also to engage in seabed mining. An autonomous adjudicatory body called the International Tribunal for the Law of the Sea (ITLOS) was established with a specialized chamber called the Sea-Bed Disputes Chamber which has exclusive competence over all disputes involving the International Sea-bed Area.[9] Last but not least is the Commission on the Limits of the Continental Shelf (CLCS) which facilitates the establishment of the outer limits of the continental shelf where it extends beyond 200 nautical miles from the baseline of a state. Such establishment of the outer limit is successful only when the commission recommends it. In the further parts of this chapter, these key provisions of the convention shall be contextualized and touched upon in detail.

Before moving into the maritime zone of the continental shelf, it would be relevant to identify various maritime zones under the LOS convention and their salient features. The LOS convention divides the ocean into six different maritime zones. These zones are drawn using a baseline which is set to begin at the low-water line along the coast. Measurement is done in Nautical Miles (NMs). One nautical Mile is roughly 1.15 miles on land.

The first zone is Internal Waters, which are waters that fall landwards of the baseline. Internal waters are equivalent to territory on land and no right of any kind of passage to other states is permitted. The second zone is the Territorial Sea, which extends to not beyond 12 NMs seaward from the baseline. The coastal state enjoys sovereignty and jurisdiction over its territorial sea. The rights of the coastal sea extend right from the water to the seabed and

[5] Permanent Court of Arbitration, The Hague, The Netherlands. Available at https://pca-cpa.org/en/services/arbitration-services/unclos/ accessed on 11 March 2021.
[6] Tullio Treves, United Nations Convention on the Law of the Sea, United Nations, 2008 p 3. Available at: https://legal.un.org/avl/pdf/ha/uncls/uncls_e.pdf accessed on 11 March 2021.
[7] Law of the Sea: A Policy Primer, chapter 2, The Fletcher School of Law and Diplomacy, Tufts University available at: https://sites.tufts.edu/lawofthesea/chapter-two/ accessed on 11 march 2021.
[8] Ibid
[9] Bernardo Zuleta, "Introduction", in The Law of the Sea. United Nations Convention on the Law of the Sea with Index and Final Act of the Third United Nations Conference on the Law of the Sea (New York, St. Martin's Press, Published in cooperation with the United Nations (Sales No. E.83.V.5), 1983) pp xxiv-xxviii.

subsoil as well as into the airspace (no vertical limit for state sovereignty has been defined yet[10]). Other states have innocent passage rights through the territorial sea (but not through the air[11]) and transit passage through an international strait (both through water and air[12]) forming part of the territorial seas of the state. The third zone is the contiguous zone which serves as a buffer to the territorial sea to prevent and punish infringements of the state's laws and regulations.[13] It extends to not more than 24 NMs seaward from the baseline. This zone gives jurisdiction to the state only on the surface and floor of the ocean[14] but not upwards in the air or space. The fourth zone is the Exclusive Economic Zone (EEZ). This zone was created by the LOS convention unlike all the other zones that were in existence previously. It extends to not beyond 200 NMs from the baseline. As the name suggests, it gives exclusive rights to the coastal state to protect and exploit all the existing and potential resources in the water as well as the seabed. Other states enjoy complete freedom of navigation and overflight over EEZs save limited restrictions[15]. The fifth zone is the Continental Shelf. As a norm, a state has the rights on continental shelf not beyond the EEZ, i.e., 200 NMs of continental shelf belongs to the state as part of the EEZ.[16] However when the continental shelf goes beyond 200 NMs, a state can claim it "throughout the natural prolongation of its land territory to the outer edge of the continental margin". Certain formulas are provided to calculate the outer edge of the continental margin.[17] However it can't extend beyond 350 NMs from the baseline or 100 NMs from the 2500-metre isobath[18]. Same rights and obligations follow here as an EEZ except that the state has the right to exploit non-living and sedentary living resources only. The sixth zone is referred to as High Seas, which is beyond the EEZ on the surface of the water and the water column. This zone when referred to on the seabed beyond the EEZ and the claimed continental shelf is known as the Area and is considered the "common heritage of mankind"[19]. The high seas and the Area are beyond national jurisdictions and all states can conduct peaceful activities in these areas including sustainable exploitation of commercial living resources. For non-living resources, resource exploration and extraction are possible only after obtaining a contract from the International Seabed Authority (ISA)[20].

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[10] H. Bertil Nordin, 'U-2 and the Vertical Boundary of Sovereign Territory', LinkedIn article, Published on April 24, 2017. Available at: https://www.linkedin.com/pulse/u-2-vertical-boundary-sovereign-territory-h-bertil-nordin/ accessed on 12 March 2021.

[11] Supra note 7 chapter 3.

[12] Ibid.

[13] Supra note 7.

[14] U.S. Department of the Navy, *Annotated Supplement for the Commander's Handbook on the Law of Naval Operations,* NWP 9 (Rev. A)/FMFM 1-10), paras. 1.5.1 & 2.4.1 (1989).

[15] Article 234 of the LOS convention states that coastal states which are surrounded by ice covered water areas can make laws and regulations also in their EEZs to prevent, control and reduce marine pollution from vessels. See, Mark Nevitt, 'Climate change, Arctic security and why the U.S. should join the U.N. Convention on the Law of the Sea', September 30, 2020, Penn Law. Available at: https://www.law.upenn.edu/live/news/10524-climate-change-arctic-security-and-why-the-us/news/cerl-news accessed 12 March 2021.

[16] Article 76 (1), UNCLOS 1982.

[17] To calculate the continental shelf, the states have to determine how far their continental landmass extends under water by locating the outer edge of the continental margin. This exercise of locating the outer edge of the continental margin has to satisfy the test of appurtenance (showing that the continental margin is in fact appurtenant to the continental landmass of the coastal state). To locate the outer edge of the continental margin, the foot of the slope has to be ascertained according to the formulae in Article 76 of the UNCLOS. Furthermore, constraint lines must be applied so that the continental shelf doesn't extend indefinitely.

[18] Supra note 6. For an animated illustration of calculation of the extended continental shelf see, About the U.S. Extended Continental Shelf Project, Office of Ocean and Polar affairs, US department of state. Available at https://www.state.gov/about-the-u-s-extended-continental-shelf-project/ accessed on 12 March 2021.

[19] Article 136 LOS convention.

[20] Michael Lodge, 'The International Seabed Authority and Deep Seabed Mining', United Nations Chronicle, United Nations. Available at: https://www.un.org/en/chronicle/article/international-seabed-authority-and-deep-seabed-mining accessed on 12 March 2021.

Section 4.3 International maritime disputes and the Arctic Continental shelf; mutuality with the Indian Ocean:

4.3.1 Evolution of Continental Shelf under International Law:

The maritime zone of Continental Shelf (extended continental shelf) is one of the most nuanced and complicated phenomena in the LOS convention. Legal Continental shelf is not the same as a geomorphological continental shelf and in fact both are intertwined, and one is as hard to determine as the other.[21] Even though the concept of continental shelf can be traced back to as far as 1910[22]. The earliest epoch-making mention of the Continental Shelf can be traced back to the US president Truman's proclamation in 1945 on 'United States Jurisdiction Over Natural Resources in Coastal Areas and the High Seas'.[23] The first major effort to codify the scope of the continental shelf doctrine in international law was made in 1958 by the adoption of the Geneva convention on the Continental Shelf.[24] The concept of continental shelf was further consolidated in the Northern Sea Continental Shelf Case of 1969, wherein the ICJ propounded the concept of 'natural prolongation' of the continental landmass into the sea. The court remarked that a coastal state has rights over "the area of [the] continental shelf that constitut[es] a natural prolongation of its land territory".[25]It further stated that the coastal state had sovereign rights to explore and exploit the continental shelf and that the rights don't depend on occupation or express proclamation but are ipso facto and ab initio by the virtue of its sovereignty over the area.[26] Hence the court came very close to recognizing the sovereignty of a coastal state over its continental shelf rather than mere rights of ownership of the resources thereof. This sovereignty was ultimately recognized in the UNCLOS provisions.[27]

Building upon this principle enunciated by the ICJ, article 76 of the LOS convention 1982, lays down the guidelines for identifying and claiming this extended continental shelf. As briefly

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[21] Even though the legal definitions are adopted on scientific concepts, they are broader in scope such that they will accommodate the interests of coastal states with continental shelves of different sizes and features. The LOS convention subsumes all the three components of the continental margin, the shelf, slope and rise into one legally defined term called the 'continental shelf'. Whereas scientifically speaking all the three concepts are distinct and the continental shelf is just one of the components of the continental margin. See, Baker, Betsy. "Law, Science, and the Continental Shelf: The Russian Federation and the Promise of Arctic Cooperation." American University International Law Review, vol. 25, no. 2, 2010, pp 264-265.
In generic terms, the continental shelf can be defined as the extension of the continental landmass into the sea till it meets the deep seabed. The continental shelf is a part and parcel of the continental margin. The continental margin consists of the shelf which is directly adjacent to the coast and slopes down gradually; the slope which comes next to the shelf, is much steeper and drops down sharply; and the rise which is gently inclined and connects the slope with deep seabed. See, Cavnar, Anna (2009) "Accountability and the Commission on the Limits of the Continental Shelf: Deciding Who Owns the Ocean Floor," Cornell International Law Journal: Vol. 42: Iss. 3, Article 4 pp 388-389. On continental rise see, Hay, William. (2016). Continental Rise, In the book, Encyclopaedia of Marine geosciences, pp 122-124.

[22] In 1910, Portugal prohibited trawling by steam vessels within the limits of the continental shelf of Portugal, up to a point where the waters were 100 fathoms deep and a few other later instances where this concept finds mention. See V.S. Mani, 'India's maritime zones and International Law: a preliminary inquiry', Journal of the Indian Law Institute, Vol. 21, No. 3 (July September 1979), p 365.

[23] Ibid & 'Proclamations Concerning United States Jurisdiction Over Natural Resources in Coastal Areas and The High Seas', Foreign Relations of the United States: Diplomatic Papers, 1945, General: Political and Economic Matters, Volume II, *Press Release Issued by The White House, September 28, 1945,* Reprinted from Department of State *Bulletin*, September 30, 1945, P. 484. September 28, 1945. Available at: https://history.state.gov/historicaldocuments/frus1945v02/d794 accessed on 12 March 2021.

[24] Young, R. (1958). The Geneva Convention on the Continental Shelf: A First Impression. *American Journal of International Law, 52*(4), p 733.

[25] North Sea Continental Shelf Cases, supra note 36, 19; see also id. 43-44, 95-96.

[26] UNHCR, *Analysis of North Sea Continental Shelf Cases (Federal Republic of Germany v. Denmark; Federal Republic of Germany v. Netherlands),* 20 February 1969, available at: https://www.refworld.org/docid/4023a4c04.html [accessed 16 March 2021]

[27] Article 77, UNCLOS 1982.

mentioned above, the coastal states that intend to establish the outer edge of their continental shelf beyond 200 NMs from the baseline shall submit 'particulars of such limit'[28] along with supporting scientific and technical data to the CLCS upon which the CLCS will give its final and binding recommendations. The CLCS applies the 'test of appurtenance' for the states to be able to prove the natural prolongation of the continental shelf beyond 200 NMs from the baseline.[29]

4.3.2 Arctic maritime disputes and solutions:

Out of the five coastal Arctic states, four of them have submitted their claims of entitlement to the Continental Shelf of the central Arctic ocean.[30] The US, not being a party to the UNCLOS, is not in a position to get recommendations from the CLCS.[31] These submissions have generated overlapping claims on the Arctic seabed.[32] These overlapping claims remain to be among the most significant territorial disputes in the Arctic, however, in the 2008 Ilulissat Declaration, the A5 states reaffirmed their commitment to solving all the outstanding issues in the Arctic through the already existing law of the Sea.[33] The CLCS is not an adjudicatory body and hence doesn't have the mandate to resolve disputes.[34] It works as a cushion against potentially manipulated or incorrect/incomplete data and provides independent assessment of data submitted by the states. It further makes an unprejudiced recommendation to the coastal states which lets the states determine the outer limits of their continental shelf. The delimitation of the continental shelves of the Arctic coastal states will have to wait till all of them, except the US, definitively establish the outer limits of their continental shelves after getting recommendations from the CLCS.[35] Even though the coastal states have submitted their claims to the commission, nothing prevents them from resolving their claims without the recommendation of the commission, in fact they are encouraged to do so.[36]

By far in the Arctic, scattered and incomprehensive maritime delimitation agreements vis-a-vis the continental shelf exist. Denmark and Norway reached an agreement for delimitation of

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[28] Excerpt from art 4 of Annex II to UNCLOS.

[29] Monahan, Dave; Van de Poll, Robert; and Cockburn, Sara, "Applying the Test of Appurtenance Globally: a new inventory of wide margin states from public domain data" (2005). International Hydrographic Review p 79. Available at: https://scholars.unh.edu/ccom/1013 accessed on 12 March 2021.

[30] Norway submitted its claims in 2006 and got recommendations in 2009. Russia submitted its original claims in 2001 and revised claims in 2015, one of which increased the area claimed in the central Arctic ocean. Denmark submitted its claim in respect of the Northern Continental Shelf of Greenland in 2014. Canada most recently partially submitted its claims in 2019.

[31] The definition of continental shelf under article 76 is considered both by the US and the ICJ to be a part of Customary International Law and hence applicable to the US. see, 'About the U.S. Extended Continental Shelf Project', Office of Ocean and Polar affairs, US department of state. Available at https://www.state.gov/about-the-u-s-extended-continental-shelf-project/ accessed 13 March 2021 & ICJ, Territorial and Maritime Dispute (Nicaragua v Colombia), Judgment of 18 November 2012, para 118.
Furthermore, the US has ratified the United Nations Convention on the Continental Shelf, adopted in Geneva in 1958 by the virtue of which, inter alia, it is free to exploit its continental shelf. See, Bjarni Már Magnússon (2017) 'Can the United States Establish the Outer Limits of Its Extended Continental Shelf Under International Law?', Ocean Development & International Law, 48:1, pp 2-5, DOI: 10.1080/00908320.2017.1265361

[32] Maritime Jurisdiction and Boundaries in the Arctic Region," Department of Geography, Durham University, July 2019, available at https://www.dur.ac.uk/resources/ibru/resources/Arcticmap2019/IBRUArcticmapJune2019.pdf accessed on 13 March 2021.

[33] Ilulissat Declaration 2008.

[34] See CLCS, 'Note by the Secretariat at Open Meeting of CLCS', 1 May 2000, Doc. CLCS/26, 20 January 2005, para. 9.

[35] See, Gavrilov, V.V. "The LOSC and the Delimitation of the Continental Shelf in the Arctic Ocean." International Journal of Marine and Coastal Law, vol. 31, no. 2, 2016, pp. 322-323.

[36] 'First Report of the International Law Association Committee established to study the outer continental shelf' (2004) 23 pp 22-23 & Michael Sheng-Ti Gau (2009) 'Third Party Intervention in the Commission on the Limits of the Continental Shelf Regarding a Submission Involving a Dispute', Ocean Development & International Law, 40:1, 63-64.

the continental shelf between Svalbard and Greenland in 2006.[37] Norway and Russia signed a treaty in 2010 named the 'Treaty between the Kingdom of Norway and the Russian Federation concerning Maritime Delimitation and Cooperation in the Barents Sea and the Arctic Ocean'.[38] Canada and Denmark entered into an agreement in 1973 regarding the delimitation of continental shelf between Greenland and the Canadian Arctic islands except for the famous piece of barren rock dispute over Hans Island which remains unresolved till date. Among some other unresolved disputes are the Beaufort Sea dispute between Canada and the United States, some territories in the Chukchi Sea, the Bering Sea and the Arctic Ocean between the US and Russia.[39] However it is relevant to note that these agreements largely extend only till the 200 NMs EEZ of the parties to agreement and none of them applies to the central Arctic ocean seabed. Furthermore, under the rules of procedure of the CLCS, it shall not consider or qualify any submission regarding a disputed maritime area.[40] This limits the ability of the commission to make recommendations to the Arctic states on the outer limits of their continental shelf, though the Arctic states have decided to not let the commission be restricted by such a limit while making recommendations on the continental shelves in the Arctic Ocean.[41] The Arctic states are likely to treat the future recommendations of the CLCS as tentative and non-binding[42] even though they would wait for them before delimiting their maritime boundaries. As a matter of fact, regardless of the outcome of the proceedings before the CLCS, the decisive part of the delimitation process will be bilateral or multilateral diplomatic negotiations[43] and the Arctic coastal states are already hinting that their submissions to the CLCS are their starting positions at the negotiating table.[44]

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[37] Agreement between the government of the kingdom of Norway on the one hand, and the government of the kingdom of Denmark together with the home rule government of Greenland on the other hand concerning the delimitation of the continental shelf and the fisheries zones in the area between Greenland and Svalbard, 2006, UN Treaty collection Volume 2378, I-42887.

[38] Treaty between the Kingdom of Norway and the Russian Federation concerning Maritime Delimitation and Cooperation in the Barents Sea and the Arctic Ocean, 2010. English translation. Available at: https://www.un.org/depts/los/LEGISLATIONANDTREATIES/PDFFILES/TREATIES/NOR-RUS2010.PDF accessed on 15 March 2021.

[39] Even though Russia (through the former USSR) and the US signed an agreement on the Maritime Boundary in 1990, it has not come into force yet because of non-ratification of Russia. Moreover, this treaty is provisionally applicable as under Article 25 of the Vienna Convention on the Law of Treaties 1969. See, Gavrilov, V.V. "The LOSC and the Delimitation of the Continental Shelf in the Arctic Ocean." International Journal of Marine and Coastal Law, vol. 31, no. 2, 2016, pp. 326-327.

[40] U.N. Convention on the Law of the Sea, Commission on the Limits of the Continental Shelf, Rules of Procedure of the Commission, U.N. Doc. CLCS/40/Rev.1.

[41] The coastal states have circumvented this limitation by obtaining the consent of the other parties to the dispute that they will not object to the recommendations of the commission on the claims of the submitting state and that the recommendations will be without prejudice to the subsequent bilateral delimitation. For example, see the US, Danish and Russian diplomatic notes submitted with regard to the partial submission made by Canada to the Commission on the Limits of the Continental Shelf. Available at https://www.un.org/Depts/los/clcs_new/submissions_files/submission_can1_84_2019.html accessed on 14 March 2021.

[42] Supra note 30 at p 338 & McDorman, Ted L. "The Continental Shelf beyond 200 NM: Law and Politics in the Arctic Ocean." Journal of Transnational Law & Policy, vol. 18, no. 2, Spring 2009, p. 185.

[43] Under article 83 of the LOS convention, states will decide overlapping claims among themselves. Lev Voronkov, The Russian Claim for an Extended Continental Shelf in the Arctic, Environmental Policy and Law, 47/2 (2017) p 93.

[44] As mentioned by a Canadian boundary negotiator on negotiations with the US, "The negotiations have ... proceeded on the basis that strict legal principles should not stand in the way of an effort to seek a balanced, fair and equitable solution on the lines to be drawn". See, Lorne Clark, Deputy Negotiator for Mar. Boundaries (Canada-U.S.A.), House of Commons, Minutes of Proceedings and Evidence of the Standing Committee on Fisheries and Forestry, Apr. 11, 1978, 3d Sess., 30th Parl., 1977-1978, Issue No. 15, at 8. For more on negotiations as the final dispute settlement mechanisms see, Gavrilov, V.V. "The LOSC and the Delimitation of the Continental Shelf in the Arctic Ocean." International Journal of Marine and Coastal Law, vol. 31, no. 2, 2016, pp. 337-338.

4.3.3 Indian state practice:

India's earliest position on the Continental shelf can be traced back to the president of India's proclamation on continental shelf in 1955 wherein it is proclaimed that 'India has, and always had, full and exclusive sovereign right over the seabed and sub-soil of the Continental Shelf adjoining its territory and beyond its territorial waters'. This proclamation is said to be made on the basis of an established international practice that 'every coastal State has sovereign rights over the sea-bed and sub-soil of the Continental Shelf adjoining its territory'.[45] Like the US president's proclamation that merely 'declared' the sovereign right of a coastal state over its continental shelf, these 'declarations' as against 'creation' of a new right, inter alia, set the path forward for the subsequent international legal instruments recognizing the coastal states' rights over their continental shelves.[46] Earliest delineation of Continental shelf was done in The Petroleum and Natural Gas Rules, 1959, wherein continental shelf is defined as 'the seabed and sub-soil or submarine areas adjacent to the coast of India including its island but outside the area of its territorial waters, to a depth of 200 metres, or beyond that limit to where the depth of the super jacent water admits of the exploitation of natural resources of the areas'.[47] It is relevant to compare this definition to the one used in the LOS convention and see how far jurisprudence and science of continental shelf have evolved.[48] The constitution of India, which is the supreme law of the land[49], under article 297, demarcates different maritime zones of India, asserts India's ownership over the resources therein in accordance with the International law of the sea and bestows upon the parliament of India to specify the limits of these maritime zones.[50] The scope of the original article 297 was comparatively far narrower and included ownership of resources only in the territorial waters. It was amended twice to include EEZs and the continental shelf.[51] An act of parliament of India passed in 1976 asserts India's sovereignty over its continental shelf.[52] In light of the above discussion it can be reasonably concluded that India's definition of the concept of the continental shelf and a coastal state's sovereignty over it are in alignment with the prevailing international law of the sea regime.[53]

Indian parliament enacted 'the Territorial Waters, Continental Shelf, Exclusive Economic Zone and Other Maritime Zones Act, 1976' to elaborate upon India's maritime zones and the rights

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[45] Ministry of External Affairs Notification, New Delhi, The Gazette of India Extraordinary pt. II, s. 3, (30 August 1955).

[46] Supra note 22 at 366.

[47] Latest Petroleum and Natural Gas Rules, 1959 notification G.S.R. 1288. Government of India. Available at: http://dghindia.gov.in/assets/downloads/l2.pdf accessed 14 March 2021.

[48] This definition sets the depth of the water column as delimiting the continental shelf showing the primitiveness in understanding of the concept of continental shelf and restrictions of technology at that time. Whereas in the present time, due to technological innovations, the jurisprudence of continental shelf has evolved to be more in alignment with the geological and geomorphological science of the continental shelf and hence a position of comparative uniformity, clarity, and definiteness of international legal order on the continental shelf.

[49] Abhijit Bhattacharyya, Constitution is the supreme law of the land, Financial Express, October 22, 2015. Available at: https://www.financialexpress.com/opinion/constitution-is-the-supreme-law-of-the-land/154982/ accessed 15 March 2021.

[50] The Constitution (Fortieth Amendment) Act, 1976, Constitution of India. Available at: https://www.india.gov.in/my-government/constitution-india/amendments/constitution-india-fortieth-amendment-act-1976#:~:text=%22297.,to%20vest%20in%20the%20Union.&text=(2)%20All%20other%20resources%20of,the%20purposes%20of%20the%20Union Accessed on 15 March 2021.

[51] The original text of article 297 read 'All lands, minerals and other things of value underlying the ocean within the territorial waters of India shall vest in the Union and be held for the purposes of the Union'. For later amendments see, the Indian Constitution (Fifteenth Amendment) Act, 1963, sec. 9 & Indian Constitution (Fortieth Amendment) Act, 1976, sec. 2.

[52] The territorial waters, continental shelf, exclusive economic zone, and other maritime zones act, 1976. Act no. 80 of 1976, 25th August 1976, section 6 (2), government of India. Available at: https://www.indiacode.nic.in/bitstream/123456789/1484/2/A1976-80.pdf accessed on 16 March 2021.

[53] See also, supra note 22 at pp 367-368.

and obligations arising thereof.[54] This act also provides for the delimitation method of drawing maritime boundaries with neighbouring coastal states. Under this act, the delimitation of maritime boundaries shall be done by an agreement between India and the neighbouring coastal state, and by the principle of equidistance in absence of such an agreement.[55] India's maritime delimitation method seems to be in alignment with the prevailing international norm on the subject matter.[56] Except for Pakistan, India has settled its maritime boundaries with all the other neighbours.

4.3.4 Concluding observations:

From the above discussions it can be inferred that both India and the Arctic states have had disputed maritime boundaries over their continental shelves (both continue to have maritime boundary disputes) and both have developed their unique approaches to solving them. While India has been a party to a major maritime boundary dispute settlement proceeding, the Arctic states have been majorly able to proceed on their maritime delimitation through bilateral and multilateral negotiations[57]. It seems likely that the recommendations of the CLCS will have minimal impact on maritime boundary negotiations (but hold significant scientific value) among the arctic states and mutual concessions will lead to successful negotiations. The ruling of CLCS in this case will be keenly watched by the non-Arctic states as to the determination of the 'Area' in the Arctic Ocean. However, if the CLCS rules that the submarine elevations and ridges (that are now being claimed by the Arctic states to be a part of their continental margins) are not a part of the continental margins, the Arctic states effectively are restricted to 200 NMs of continental shelf maximizing the Area. Another takeaway from this discussion is how one region can learn and implement solutions from the other. For example the grey area in the Bay of Bengal among India, Bangladesh and Myanmar wherein the continental shelf jurisdiction lies with a state while the water column with another, could take some lessons from the tripartite agreement between Iceland, Denmark and Norway for joint exploitation and management of the continental shelf in the area between the Faroe Islands, Iceland, mainland Norway and Jan Mayen referred to as the Banana hole.[58] India's only so called claim on the Arctic seabed would therefore be in the 'Area' which would be explored and exploited under the supervision of the ISA.

The LOS convention was negotiated in 1980's when it was expected that continental shelves of the states will be a critical resource of huge value in the future to the states since they will

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[54] Supra note 52.

[55] Id, section 9(1).

[56] The equidistant principle has been endorsed by the UNCLOS and has also been used widely around the world to delimit maritime boundaries for example between states of the US and also between the US and Mexico. See "Federal Outer Continental Shelf (OCS) Administrative Boundaries Extending from the Submerged Lands Act Boundary seaward to the Limit of the United States Outer Continental Shelf," *Federal Register,* January 3, 2006 (Volume 71, Number 1) pp. 127–131.

[57] All the major maritime boundary delimitation breakthroughs in the arctic have happened as a result of negotiations between the states, except for the ICJ Maritime Delimitation in the Area between Greenland and Jan Mayen (Denmark v. Norway) (1993).

[58] Ministry of Foreign Affairs Government of Norway, Norway signed maritime delimitation agreements with Iceland and Denmark/the Faroe Islands, 30/10/2019. Available at: https://www.regjeringen.no/en/aktuelt/norge-undertegnet-maritime-avgrensningsavtaler-med-island-og-danmarkfaroyene/id2675744/ accessed on 16 March 2021.

See Agreement on the Continental Shelf Between Iceland and Jan Mayen, 22 October 1981. Available at https://www.un.org/depts/los/LEGISLATIONANDTREATIES/PDFFILES/TREATIES/ISL-NOR1981CS.PDF accessed on 16 March 2021. Also see the treaty forming the joint follow up hydrocarbon regime, Agreement between Iceland and Norway concerning Transboundary Hydrocarbon Deposits, November 3, 2008, available at www.nea.is/media/olia/JM_unitisation_agreement_Iceland_Norway_2008.pdf accessed on 16 March 2021.

provide oil and gas which will be the lifeline of the global economy.[59] Almost half a century later, climate change research and awareness has pushed innovation away from oil and gas and towards more sustainable sources of energy such as electric, solar, wind etc. in this age of renewables, the issues of continental shelf seem to be outdated and are gradually being pushed to the periphery. Hence it is estimated that these conventional bones of contention will no longer pioneer national strategies and slowly fade out from the global stage as yet another evolutionary phenomenon.

India has been one of the pioneering nation investors in deep seabed mining under the auspices of the ISA.[60] India got exclusive rights to an area in the central Indian ocean basin to explore and develop technologies for mining polymetallic nodules from deep seabed and these rights were extended for five more years in 2017.[61] These polymetallic nodules are made up of almost completely usable minerals whereas the ores mined from land usually yield less than 1%. This means a reduction of more than 99% in solid waste and no toxic tailings.[62] However there is a long way to go before this process of extraction from seabed becomes economically viable.[63] The demand for these minerals is gaining momentum all around the world with the convergence of all the technological advancement and countries putting them on their critical requirements list.[64] Given the Barents region's interest in India, it would be a win-win situation for both the parties involved to collaborate on extraction and usage of these resources. Though a slightly more far-fetched idea, India's role could also be significant in exploration of the 'Area' in the Arctic ocean floor later in the future when conditions allow for it. Russia and India are also interested in cooperating over seabed mining, and this would be most likely in the Arctic.[65]

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[59] Statement by the chairman of CLCS, United Nations Convention on the Law of the Sea and the Delineation of the Continental Shelf: Opportunities and Challenges for States: Open Meeting of the Commission on the Limits of the Continental Shelf, Held on 1 May 2000, p 3.

[60] This status of a pioneer investor was granted in 1987. See, Deep Seabed Polymetallic Nodules, Annual Report 1992-93, Department of Ocean Development, Ministry of Earth Sciences, Government of India, available at: https://www.moes.gov.in/writereaddata/files/archive/ayr92-93/ar_pmn.htm accessed on 17 March 2021.

[61] PIB Delhi, India's Exclusive Rights to Explore Polymetallic Nodules from Central Indian Ocean Seabed Basin Extended by Five Years, Ministry of Earth Science, Aug 2017. Available at: https://pib.gov.in/PressReleasePage.aspx?PRID=1500266 accessed on 18 March 2021.

[62] Polymetallic nodules, DeepGreen Metals. Available at : https://deep.green/nodules/ accessed on 18 March 2021.

[63] See, Aswathi Pacha, 'Explained | What is India's Deep Ocean Mission', August 04, 2019, The Hindu. Available at: https://www.thehindu.com/sci-tech/science/why-is-india-pulled-to-deep-sea-mining/article28809029.ece accessed on 18 March 2021.

[64] Hein, J.R., Koschinsky, A. & Kuhn, T. Deep-ocean polymetallic nodules as a resource for critical materials. Nat Rev Earth Environ 1, 158–169 (2020).

[65] "We will develop joint strategies to harness the potential for mutually beneficial cooperation in the field of deep-sea exploration and development of hydrocarbon resources, polymetallic nodules, and other marine resources utilizing strengths in the field of maritime research and training to develop mutually beneficial cooperation". See, Ministry of External Affairs India, Saint Petersburg Declaration by the Russian Federation and the Republic of India: A vision for the 21st century June 01, 2017, St Petersburg. Available at: https://www.mea.gov.in/bilateral-documents.htm?dtl/28507/Saint_Petersburg_Declaration_by_the_Russian_Federation_and_the_Republic_of_India_A_vision_for_the_21st_century#:~:text=The%20Declaration%20on%20Strategic%20Partnership,issues%2C%20as%20well%20as%20close accessed on 19 March 2021.

Section 4.4 India and the right of passage/navigation in the Arctic under the law of the sea convention.

4.4.1 The theory of legality of the arctic passages under the LOS convention:

The right of passage issues manifest in the arctic mainly in the northeastern (specifically the northern sea route, NSR) and the northwestern passage (NWP) contiguous to the Russian and the Canadian Arctic respectively. Though both the routes have certain similarities vis-a-vis their legal status under international law, it would be important to analyse them separately in context of their utility for India. To begin with let us find similarities between them.[66] Both pass through maritime zones, parts of which are claimed to be internal waters, territorial seas and EEZs by their respective coastal states, however it is difficult to determine precisely which segment of the route falls under which maritime zone because of the varying routes taken due to changing ice conditions and other factors prevalent at the time of the voyage. Rather than consider each segment of the route individually, this part shall deal with the route as a whole and touch upon segments wherever relevant. Both contiguous states claim similar titles to the waters of the route and the underlying reasons seem to be similar as well. Authors belonging to a particular state take the stand which they consider to be the most advantageous to their homeland.[67] The international law applicable to both the routes is similar and hence it would be necessary to scrutinize them under the relevant international law of the sea.

4.4.1.1 The Northwest passage:

Starting with the North-western passage, two of the most substantive examinations have been done by the Canadian authors Donat Pharand[68] and Mark Killas[69]. What should be determined about the NWP is i) if it can fall under one maritime zone and if yes, which Canadian maritime zone does it fall under? ii) what is the status of the NWP under international law? As far as the status of the NWP under Canadian jurisdiction vis-a-vis the LOS convention, it is claimed by Canada that all the passages that comprise the NWP come under internal waters of Canada and hence Canada exercises unrestricted sovereignty over them same as it would exercise on Canadian land. This claim has to be tested under the elaborated regime of the international law of the sea. This claim of internal waters comes from its claim over these waters of the NWP as a historic title[70] and directly from the fact that in 1985 Canada drew its baseline around the whole of Canadian Arctic Archipelago claiming the baseline as "the outer limits [for its] historic internal waters"[71]. To consider Canada's claim as a historical title, we should delve into the history of the concept and see if Canada's claim is justifiable. The concept of 'Historical title' over waters has been derived from the concept of 'Historical waters' which in turn finds its origins in 'historic bays'. In the early 20th century, in the North Atlantic Fisheries case

[66] To know the similarities in detail, read and compare, DONAT PHARAND, The Arctic Waters and the Northwest Passage: A Final Revisit, Ocean Development & International Law, 38:3–69, 2007 & Philipp Kastner, International legal dimensions of the Northern Sea Route, Marcus Matthias Keupp (Ed.) The Northern Sea Route, Springer Fachmedien Wiesbaden 2015 pp 39-52.

[67] Generally observing, Authors of the contiguous state conclude that their state enjoys sovereign rights of the highest order in respect of the arctic passage in question, whereas the contrary is observed when authors of the competitive states write about the same arctic passage. For example, see American authors views on the NWP, James Kraska, The Law of the Sea Convention and the Northwest Passage, The International Journal of Marine and Coastal Law, Vol 22, No 2 Koninklijke Brill NV, 2007 & Canadian author views, DONAT PHARAND, The Arctic Waters and the Northwest Passage: A Final Revisit, Ocean Development & International Law, 38:3–69, 2007.

[68] Donat Pharand, The Arctic Waters and the Northwest Passage: A Final Revisit, Ocean Development & International Law, 38:3–69, 2007.

[69] Mark Killas, The Legality of Canada's Claims to the Waters of its Arctic Archipelago, 1987 19-1 *Ottawa Law Review* 95, 1987 CanLIIDocs 20, <https://canlii.ca/t/2bsn>, retrieved on 2021-03-30.

[70] Supra note 68 at p 4.

[71] Statement in the House of Commons by Secretary of State for External Affairs, Joe Clark, Canada, House of Commons, Debates, 6462–6464, 10 Sept. 1985, reproduced in Dep't. of External Affairs, Statement Series 85/49 and in 24 Canadian Yearbook of International Law, p 418.

between the UK and US, the Permanent Court of Arbitration (PCA) for the first time propounded a clear test to determine titles over historic bays.[72] The PCA observed that "a State could claim a historic bay when sovereignty is asserted with the acquiescence of other states over areas that have particularly important national security, geographic, or economic characteristics".[73] In this case UK's historic title to certain bays off the Newfoundland coast was recognized. John Westlake also cited the bays of Chesapeake and Delaware and the Bay of Cancale as similar examples of historic sovereignty based on "recognised immemorial usage".[74] In 1951 in the Anglo Norwegian fisheries case, the International Court of Justice (ICJ) gave this definition for historic waters. "By "historic waters" are usually meant waters which are treated as internal waters but which would not have that character were it not for the existence of an historic title".[75] The court laid down a five part definitive test {(1) jurisdiction as internal waters over the claimed area (2) over a long period of time (3) without opposition from other States (4) continuously pursued and (5) notoriously asserted}[76] to determine claims of a coastal state over its historic waters which has been largely subscribed by the international community at large till date. The secretariat of the UN in 1958, recognized the broader scope of historic waters and that historic bays were a part of historic waters.[77] Therefore from the above it can be concluded that in order for a successful claim of a historical title to an area as internal waters, the coastal state must pass the five-part test laid down by the ICJ.

For the convenience of easier understanding without losing the essence of the five-part test, we can boil it down to a one liner: Whether the coastal state has enjoyed effective[78] and regular[79] sovereignty over the area for a substantial length of time[80] and had a notorious[81] acquiescence[82] of other affected states[83]?[84]

[72] Mirasola, Christopher. "Historic Waters and Ancient Title: Outdated Doctrines for Establishing Maritime Sovereignty and Jurisdiction." Journal of Maritime Law and Commerce, vol. 47, no. 1, January 2016, p 35.
[73] N. Atl. Coast Fisheries (U.K. v. U.S.), 11 R.I.A.A. (Perm. Ct. Arb. 1910) at 197, 206-207.
[74] John Westlake, *International Law*, pp 191-192 (2d edition 1910).
[75] Fisheries Case (U.K. v. Nor.), Judgment, 1951 I.C.J. Rep. p 130.
[76] Id at pp 130 & 136-37.
[77] United Nations, Memorandum prepared by the UN Secretariat on Historic Bays: Doc. A/Conf. 13/1 (1957) p 2.
[78] Effective sovereignty would amount to commanding such authority over the area as to taking such steps as necessary to assert and carry out its ownership and control over any land territory it has. See Donat Pharand, 'Historic Waters in International Law with Special Reference to the Arctic', The University of Toronto Law Journal, Vol. 21, No. 1 (Winter, 1971), p 7.
[79] More commonly known as continuity of possession, "the real criterion for the continuity of possession is its *regularity*, i.e., its conformity with what is commonly regarded as regular practice in respect of the type of territory in question. The ascertainment of regular sovereignty is fact intensive and hence varies on a case-to-case basis". See Yehuda Blum, *Historic Titles in International Law* (1965) p 111.
[80] "As a general rule, it may be said that the length of time must be very substantial, without being necessarily immemorial". See supra note 68 at p 7.
[81] Notoriety and acquiescence are mingled up such that the latter is not enforceable without the earlier. There ought to be widely available knowledge in public about the area so claimed under a historic title. See, D.H.N. Johnson, Acquisitive Prescription in International Law, 27 Brit. Y.B. Int'l L., (1950) p 347. Furthermore, notoriety is sufficient when it could be determined that the claimant state has exercised effective and regular sovereignty over the area and that other states had constructive knowledge of such an exercise of sovereignty. See supra note 79 at pp 144-145.
[82] The criterion for acquiescence is fulfilled when there is no real protest. A real protest will "be made by all reasonable and lawful means, and the nature of the means and the vigour with which the protest is made will depend upon the gravity of the threat and the nature of the rights violated". See supra note 68 at p 8.
[83] It is important to note here that the area under consideration i.e., the NWP is being acted upon in the present, but these actions are highly founded upon what this area entails in the future i.e., melting of ice and removal of barriers to shipping and usage of the Arctic passages. In such a case, affected states are all those states that are directly affected (for example the US) as well as those which anticipate their relevance to the affected area in the future, which might not be relevant at present (for example China in this case).
[84] This one liner encompasses jurisprudence of decades and hence is very wide in scope. To condense and use it for the purpose of this paper, the interpretation of individual concepts is taken from discussions by various authors

The author would like to agree with Donat Pharand here in stating that Canada is not in a position to pass the one liner test formulated above.[85] As stated by Donat, historically, neither the British nor the Canadian explorers ever claimed or took possession of the Arctic waters over Canada and it was only in 1973 that the claim for historic internal waters was made in respect of the Canadian Arctic waters. This shows the lack of enjoyment of sovereignty for a substantial length of time. Furthermore, the US and the European Commission (EC) member states sent notes of protest over such a claim by Canada.[86] The US and the EC states maintained that there was no basis in international law to sustain the Canadian claim and that they reserved the right to exercise their rights in those waters according to international law respectively. Hence the affected states have not given acquiescence to Canadian claims and transit of US vessels shows that the protests are real.[87] Canada has also failed to exercise effective sovereignty when it failed to subject foreign vessels to prior authorization before entering the NWP.[88] This concludes the appraisal of the claim of Canada on the NWP on ground of a historical title and we see that Canada does not have a historical title to the waters of the NWP. Hence Canada can't claim the NWP to be its internal waters on the basis of historical title.

Next in the line of appraisals is the claim that the NWP is Canadian internal waters on the basis of the straight baselines drawn by it around the Canadian archipelago. UNCLOS took into account the peculiar circumstances of states with highly indented and cut into coastlines and states with fringes of islands along the coast and under article 7 allowed them to draw straight baselines. Canadian method of delimitation of baselines indicates that it considers its coastline as deeply indented and its islands to be "a fringe of islands along the coast in its immediate vicinity" under article 7 (1) rather than an archipelagic state under part IV of the LOS convention.[89] Hence its method of drawing baselines will be scrutinized under the regime of article 7 of the UNCLOS.

The ICJ in Anglo-Norwegian fisheries case held that, generally, two geographical features which warranted usage of straight baseline method were a deeply indented coast and an archipelago bordering a coast (a fringe of islands). The same concepts were then incorporated under article 7 (1) of the LOS convention. The concepts of 'deeply indented coast' and 'an archipelago bordering a coast' were broadly interpreted and not defined in detail by the court. It merely gave illustrations to reference the Norwegian coast of Eastern Finnmark and Skjaergaard as types of localities where the straight baseline method could be used.[90]

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as stated in the aforementioned notes, but significantly from 'Interpreting Requirements for Historic Waters' by Christopher Mirasola supra note 72 at pp 60-67.

[85] Supra note 68 at p 13.

[86] The EC states' note of protest mentioned objections to drawing of straight baselines that the criterion for general direction of the coast was not met. The US note of protest also maintained the straight baselines to be "contrary to established principles of international Law of the Sea" and hence not valid. See, US department of state, Bureau of oceans and international environment and scientific affairs, Limits in the seas no. 112, United States response to excessive national maritime claims, 9th March 1992, pp 29-30. Available at https://www.state.gov/wp-content/uploads/2019/12/LIS-112.pdf accessed on 20 March 2021.

[87] US vessels transited through the NWP in 1969 and 1985 forcing both states to reach a practical agreement wherein both agreed to stand by their positions on legality of the passage. Moreover, the US agreed to ask for permission for future transits and Canada agreed to grant permission. See, Canada and United States of America, Agreement on arctic cooperation. Signed at Ottawa on 11 January 1988 & Steinberg, Philip E. "Steering between Scylla and Charybdis: The Northwest Passage as Territorial Sea." Ocean Development and International Law, vol. 45, no. 1, 2014, p 97.

[88] Supra note 68 at pp 9-13.

[89] Baselines of the territorial sea, fisheries and oceans canada, government of canada, 2018. Available at: https://www.dfo-mpo.gc.ca/science/hydrography-hydrographie/canada-territorial-waters-eng.html accessed on 21 March 2021.

[90] Supra note 75 at pp 129-130.

On the other hand, the usage of the word 'immediate vicinity' in the LOS convention would warrant close geographical proximity of the islands to the mainland. Some authors are of the view that the Canadian archipelago is too large to be called a "fringe".[91] A reading of the official US position on article 7 (1) indicates that the US would also be against classifying the Canadian archipelago as a 'fringe of islands along the coast in its immediate vicinity'.[92]

Judge Read in his dissenting judgement specifically mentioned Canada as having coastlines that are comparable to the northern coast of Norway.[93] In concurrence with Donat Pharand, Professor William Burke (an American scholar) and Bruce McKinnon, the author is of the view that applying the criteria laid down by the court in fisheries case and giving a liberal interpretation to article 7 (1), it can be concluded that the Canadian Arctic archipelago is 'a fringe of islands along the coast in its immediate vicinity'.[94] Hence Canada fulfils the geographical requirements to draw straight baselines around its Arctic archipelago.[95]

Now we shall see if Canada has rightfully applied the criteria for drawing straight baselines. The ICJ, in the Anglo Norwegian fisheries case held that the method of straight baselines was not an exception to the rule of drawing baselines but a specific application of a general rule[96] whereas language of article 5 of the UNCLOS makes it clear that the straight baseline method is an exception to the normal baseline i.e., low-water line. However, some scholars agree with the views of the ICJ and are of the view that the underlying basis of the general rule is that the baseline should follow the general direction of the coast. As long as the general direction of the coast is maintained, the straight baseline rule is just a specific application of the general rule.[97] The author also subscribes to this notion.

However, these straight baselines are "[i)] not [to] depart to any appreciable extent from the general direction of the coast, and [ii)] the sea areas lying within the lines must be sufficiently closely linked to the land domain to be subject to the regime of internal waters"[98]. These two conditions are to be compulsorily fulfilled in order for the state to be able to draw straight baselines. This doctrine of straight baselines was additionally warranted by historical title of these states on these waters and supported by considerations of geography and economics.[99] Hence article 7 (5) allows for consideration "of economic interests peculiar to the region concerned, the reality and the importance of which are clearly evidenced by long usage". This is an optional criterion which a state may not fulfill. The above three criteria are derived from the Anglo Norwegian fisheries case and shall be used to test if Canada has rightfully applied the criteria for drawing straight baselines. The aforementioned three criteria test will be useful in this case; however, the third criterion is optional and hence need not be examined. It is relevant here to note that a coastal state has the ultimate sovereignty to draw baselines around

[91] Sternheim, Michael. "Regulating the Northwest Passage." Loyola Maritime Law Journal, vol. 10, no. 1, Fall 2011, pp 184-185.
[92] Limits in the seas no. 106, United States response to excessive national maritime claims, US department of state, Bureau of oceans and international environment and scientific affairs, 9th March 1992, pp 16-26.
[93] Supra note 76 at p 193.
[94] Supra note 69 at pp 16-17.
[95] As mentioned in note 68 that authors of the contiguous state conclude that their state enjoys sovereign rights of the highest order in respect of the arctic passage in question, here that factor is mitigated when an American scholar and a judge of the ICJ are of similar point of view as Canadian authors. For the view of the authors mentioned see, supra note 69 at pp 16-17.
[96] Supra note 75 at pp 129-131.
[97] Supra note 68 at p 14.
[98] Article 7 (3) UNCLOS 1982.
[99] Supra 72 at p 49.

its coast but the validity of such a baseline in regard to other states will depend upon international law.[100]

Firstly, in regard to the general direction of the coast, it is observed by the court that departure from general direction should be within reasonable limits such that it is not a distortion of the general direction. While applying this criterion, the general direction of a coast is determined by not looking at only one sector of the coast but rather the general direction of the coast on a small scale map, except in cases of blatant abuse.[101] As observed by both Pharand and Killas, the author agrees that this criterion has been broadly interpreted by the court and the underlying reason to include it in the LOS convention was to prevent blatant abuse of the straight baselines method by laying unjustified claims on large sea areas[102]. In Fact the purpose of the whole exercise of interpretation is to establish the objective intentions of the parties.[103] Further as Pharand points out that this criterion of general direction of the coast is fulfilled when using the 'Robinson projection' rather than the commonly used 'Lambert conic projection'.[104] The author seconds this conclusion and hence is of the opinion that, in spite of contrary views by the US and the EC member states, the Canadian coast satisfies the general direction of the coast criterion insofar as it qualifies the purpose for introduction of this article in the LOS convention.

Coming to the second compulsory part of the test, the court upheld the primity of land over water and said that the real test would be to determine if the areas of water lying within the straight baselines "are sufficiently closely linked to the land domain to be subject to the regime of internal waters"[105]. As regards to this part of the test, the same can be concluded as the first part i.e., the court interpreted the rule liberally and in agreement with Pharand, the author concludes that Canada fulfills the second part of the two-part test as well. To sum it up, Canadian straight baselines fulfill the geographical requirements for drawing straight baselines. One last point for consideration is the length of the straight baselines. Even though article 10 of the LOS convention provides a 24 NMs limit for bays, article 10 (6) exempts straight baselines drawn under article 7 from such a limit. One last look at the observations of the ICJ indicates that the court had a liberal approach in interpreting baseline lengths and held that a coastal state was in a better position to determine those lengths after judging local conditions and as long as there was no manifest abuse, there could be no maximum lengths set for straight baselines.[106] Hence it can be concluded that the straight baselines drawn by Canada satisfy the tests of article 7 of the LOS convention and waters of NWP are internal waters of Canada.

However, the real bone of contention and a question of broader international significance is the legal status of the NWP. It has to be determined whether i) there exists the right of innocent passage under article 8 (2) or ii) it is a strait used for international navigation and hence the right of innocent/transit passage exists or iii) both or iv) neither?

To begin with, let us determine whether under article 8 (2) of the UNCLOS, there exists a right of innocent passage. Under article 8 (2), if the straight baselines led to making of new internal waters which were not designated as such earlier, there shall be a right to innocent passage

[100] Supra note 75 at p 132.
[101] Supra note 68 at p 18.
[102] Supra note 69 at p 119.
[103] Eirik Bjorge, *The Evolutionary Interpretation of Treaties*, Oxford university press, 2014, p 56.
[104] Supra note 68 at pp 18-19.
[105] This quote from supra note 75 at p 133 was used to phrase a part of article 7 (3) of the UNCLOS.
[106] Supra note 75 at pp 131-132.

in those waters. In such a case, it would be indispensable to determine the status of the waters of the NWP before they were declared internal waters by Canada. As seen in the previous sections, Canada's claim to the NWP waters as a historic title does not stand under international law and hence Canada has drawn its straight baselines on the basis of article 7 of the LOS convention. Barring the claim of historic waters, Canada, under no other provision can claim that the Arctic archipelagic waters were internal waters before it drew the straight baselines (and this claim failed our test previously). Hence, we see that the waters of the NWP were in part territorial seas of Canada before the drawing of straight baselines in 1985. Consequently, in agreement with Pharand, the author also opines that there existed the right of innocent passage through parts of NWP which were territorial seas of Canada before 1985 and the right of passage through the parts that were high seas.[107]

Next comes the question whether there exists the right of innocent passage after the straight baselines drawn in 1985. Here the author would like to take a different stream of approach than Pharand. Pharand claims that Canada drew the straight baselines in accordance with customary law applied by the ICJ in the fisheries case. The author has already clarified and would like to reiterate that Canada drew straight baselines under article 7 of the LOS convention. The author would like to emphasize here the reasoning of Judge Hackworth who agreed with the operative part of the judgement (that Norway was acting rightfully under international law in drawing straight baselines) but for the reason that Norway proved historic title to the disputed areas of water.[108] Therefore in the view of the author, under customary law, a state can draw straight baselines only if it satisfies the test for a historic title to waters as discussed in the previous paragraphs. In the present case, Canada failed to satisfy the test and hence cannot draw straight baselines under customary international law. Furthermore, under article 18 of the Vienna convention on the law of treaties, Canada is obliged to refrain from acts which would defeat the object and purpose of a treaty when it had already signed the treaty.[109] The third line of reasoning[110] taken by Pharand to reach his conclusion that no right of innocent passage exists after the 1985 drawing of straight baseline goes against article 18 of the VCLT. As rightly pointed out by Steinberg, according to Kraska, there lies another problem with seeking to deny the right of innocent passage by claiming special status of straight baselines drawn before the LOS convention came into force for the coastal state drawing such baselines.[111] Kraska has denounced this approach as opening the floodgates for such claims all around the world and defeating the purpose of the LOS convention as one gigantic package deal to govern the oceans.[112] Therefore to sum up, there exists a right of innocent passage through NWP under article 8 (2) of the LOS convention.

Moving to the question whether the NWP can be considered to be a strait used for international navigation and hence the right of innocent/transit passage exists. Part III of the UNCLOS stipulates the rights of the coastal states and the freedoms enjoyed by other states in straits used for international navigation. There are certain qualifications to the provisions mentioned therein which will be dealt with in this part. Even though the LOS convention does not define what is meant by 'a strait used for international navigation', article 37 simply states straits used

[107] Supra note 68 at pp 42-43.
[108] Supra note 75 at p 144.
[109] Article 18, Vienna Convention on the Law of Treaties, 1969.
[110] "Canada did not become a party to the 1982 Law of the Sea Convention (which entered into force in November 1994) until 2003, nearly 20 years after drawing its Arctic baselines". Supra note 68 at p 43.
[111] Philip E. "Steering between Scylla and Charybdis: The Northwest Passage as Territorial Sea." Ocean Development and International Law, vol. 45, no. 1, 2014 p. 90.
[112] Kraska, James. "The Law of the Sea Convention and the Northwest Passage." International Journal of Marine and Coastal Law, vol. 22, no. 2, June 2007, p 272.

for navigation between one part of the high seas or an EEZ and another part of the high seas or an EEZ. Kraska and Pharand differ as to what criteria should an international strait meet in order to be brought under part III and hence the right of transit passage be exercised therein. James Kraska is of the opinion that under conventional international law, a strait needs to satisfy only geographical criterion whereas Pharand, relying authority on the ICJ case in Corfu channel, contend that under customary international law, a strait has to satisfy both the geographical as well as functional criteria. Pharand has gone as far as saying that customary international law is the only law applicable to this question.[113] Both Kraska and Pharand agree that the geographical criterion is met for the NWP to be an international strait.[114] As far as the functional criterion is concerned, Pharand is of the opinion that in the Corfu channel case, the court devised the test of historically useful maritime routes. In order for a strait to be called an international strait under part III of the LOS convention, it should satisfy the functional criterion whereunder a strait should have had "a history as a useful route for international maritime traffic"[115]. On the other hand, Pharand also agrees that the burden of proof under functional criterion in the Corfu channel case was fairly high and that in relation to the NWP, the same burden of proof would be relatively lower because of peculiar conditions such as absence of alternative route, difficulty of navigation and remoteness of the region.[116]

The author finds the argument convincing that the NWP is an international strait under part III of the UNCLOS. Under the LOS convention there is no mention of the functional criterion as relied upon by Pharand and hence a strait needs to satisfy only the geographical criterion. Furthermore, UNCLOS is the codification and progressive development of the customary International law of the law of the sea. The aim of the law of the sea is to balance sovereign rights of a coastal state with the shared interests of the global community.

Assuming arguendo that both geographical and functional tests have to be met, using the approach of liberal interpretation of criteria used in the aforementioned paragraphs and as rightly pointed out by Pharand, it can be deducted that the threshold for meeting the functional criterion would be lower in the NWP due to peculiar conditions of the region. It is important to note that the number of transits more than tripled in a decade from 1999 till 2009 and remained one short of double from 2009 to 2019.[117] Pharand notes in his 2007 article that 69 transits had taken place over the last 100 years.[118] However in about one tenth of the time period, more than double transits have taken place between 2007 and 2019.[119] This threshold would be met by the accelerating transits happening through the NWP in recent years. Hence to conclude, it can be said that the NWP is 'a strait used for international navigation' under part III of the LOS convention and hence a right of transit passage exists through the NWP.

To conclude this study and answer the original questions, it can be said that the waters of the NWP are internal waters of Canada and the NWP is an international strait under part III of the UNCLOS and there exist both the right of transit passage as well as the right of innocent passage through the NWP.

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[113] Supra note 68 at p 36.
[114] Kraska, James. "The Law of the Sea Convention and the Northwest Passage." International Journal of Marine and Coastal Law, vol. 22, no. 2, June 2007, p 275 & Supra note 68 at p 36.
[115] Supra note 68 at p 35.
[116] Ibid at p 44.
[117] Transits in 1999 were 4. Transits in 2009 were 13 and in 2019 there were 24 transits. See R. K. Headland and colleagues, 'Transits of The Northwest Passage to End of the 2019 Navigation Season, Atlantic Ocean ↔ Arctic Ocean ↔ Pacific Ocean', Scott Polar Research Institute, University of Cambridge, Lensfield Road, Cambridge, United Kingdom, CB2 1ER, 17 March 2020.
[118] Supra note 68 at 37-38.
[119] Supra note 117.

4.4.1.2 The Northern Sea Route:

Undertaking a similar study for the NSR, questions will be answered as to i) whether the NSR can fall under one particular maritime zone of Russia and if yes, which zone?; ii) Is the claim of internal waters to the waters of NSR by drawing straight baselines rightful under international law? iii) what is the legal status of the NSR under international law and whether there exist/s the right/s of innocent passage and/or transit passage through it?

It would be relevant to first designate the geographical extent of the NSR for the purpose of this study. Contrary to the relatively clear 7 routes[120] of the NWP, in general there are three navigational routes i.e. coastal, middle and transit that vessels take sailing through the NSR.[121] For the purpose of this study, we shall demarcate the NSR to be what it is defined under Russian domestic law. The eastern limit of the NSR is Provideniya Bay in the Bering Strait and the western limit is entrance to the Kara Gate Strait.[122] The southern limit is of course the northern landmass of Russia bordering those waters. As far as the northern limit is concerned, it varies according to sea ice and other conditions and the route consists of 58 different possible strait connections.[123] Therefore it is difficult to determine the northern limit of the route. However, it would be reasonable to conclude that it traverses through multiple maritime zones of Russia and hence it is not possible to say that the NSR falls under one particular maritime zone of Russia. Since the northern limit of the route can go as far as the North pole and beyond[124], for the purpose of this study we shall confine the route to waters that Russia has claimed to be internal waters after it drew straight baselines enclosing the archipelagos along the route in 1985.[125]

Following the same process of scrutiny as utilized in the earlier part regarding NWP, we shall first determine whether Russia has drawn straight baselines rightfully i) under the claim of a historic title to the NSR waters or ii) under article 7 (1) of the LOS convention.

Firstly, analyzing the historic title of Russia over the waters of NSR, we shall have to see if this claim passes the one liner test arrived at after summarizing the five-part test by the ICJ in the previous part. To rewrite the test, whether Russia has enjoyed effective and regular sovereignty over the area for a substantial length of time and had a notorious acquiescence of other affected states?[126] We shall analyse every part of the test vis-a-vis the Russian claim and utilise the theory 'the whole is a sum of its parts'. As far as effective sovereignty is concerned, prima facie it seems that Russia has exercised effective sovereignty over waters of the NSR throughout history. Right from the discovery of the route[127], to its utilization and

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[120] Supra note 68 at pp 29-30.

[121] Caitlyn Antrim, Geography and Jurisdiction in The Maritime Arctic, Geographical Review 107 (1): p 42, January 2017.

[122] Alexander Vylegzhanin, Ivan Bunik, Ekaterina Torkunova & Elena Kienko (2020) Navigation in the Northern Sea Route: interaction of Russian and international applicable law, The Polar Journal, 10:2, p 286.

[123] Lawson W. Brigham et al, The Natural and Societal Challenges of The Northern Sea Route, Central Marine Research and Design Institute, St. Petersburg, Russia, p3, 1999.

[124] Ibid

[125] Supra note 123 at p 297. See Russian straight baselines enclosing the archipelagos along the route at, Russia: Straight Baseline Claim, The Navy Judge Advocate General's Corps, US Navy. Available at: https://www.jag.navy.mil/organization/documents/mcrm/RussiaChart.pdf accessed on 22 March 2021.

[126] For detailed analysis on the method of arriving at this one liner test, see notes 79-85 and the text thereof.

[127] The achievement of discovering the NSR belongs to Russian seamen of the 16th and the 17th century. See, Ola Johannessen & Vitaly Alexandrov et al, Remote Sensing of Sea Ice in the Northern Sea Route: Studies and Applications, 2007, Springer-Praxis Books in Geophysical Sciences, p 6. Furthermore, the right of discovery was enough to claim ownership under the then existing international law. See Viatcheslav V. Gavrilov (2015) Legal Status of the Northern Sea Route and Legislation of the Russian Federation: A Note, Ocean Development & International Law, 46:3, p 258.

subsequent claim of ownership and actual control[128] make Russian claim as one exercising effective sovereignty. Russian regulations governing the NSR have failed to categorically claim it in its entirety under internal waters.[129] Only the Dmitrii Laptev and Sannikov straits have been specifically claimed as internal waters. There have been inconsistencies between different regulations issued on the recognition and governance of the NSR waters vis-a-vis their legal status under the Russian maritime zones.[130] This shows that the element of regular sovereignty is missing from the claim.

The next part of the test is determining whether Russia has enjoyed a notorious acquiescence from other affected states. Russia has published its domestic laws regarding the regulation of areas of the NSR numerous times over the past century, but other states have generally not objected to such laws and regulations[131], except for the consistent US notes of protest[132]. However, an important incident to note is the successful passage of the US icebreakers through NSR in the 1960s and a subsequent challenge by Russia leading to cancellation of the future American plans for passage.[133] A few states protested initially when Russia drew straight baselines but these protests have fainted away as Russia has solidified its position on the NSR.[134] Another important thing to note is that the legal regime governing the NSR itself notes of foreign use in these areas.[135]

In conclusion to the test of historic title, it is difficult to establish that Russia has a historic title to the waters of the NSR so as to categorize them as 'internal waters'. The protests of the US in the past can be considered to be 'real protests'. Moreover, presence of foreign vessels and inconsistencies in claims also inhibit bestowing of such a historic title. As the International Law commission notes, "the scope of the historic title emerging from the continued exercise of sovereignty should not be wider in scope than the scope of the sovereignty actually exercised".[136] Therefore the waters on which sovereignty was formerly exercised as territorial sea cannot be later claimed as 'internal waters owing to a historic title over those waters'. Hence the Russian claim to the waters of NSR as internal waters based on a historic title is unsuccessful and Russia is not in a position to draw straight baselines claiming historic title to the waters of the NSR.

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[128] Russia (former USSR) has identified the NSR as a national maritime transportation route since the early 20th century and has constantly developed its governance and navigational regime as internal waters. See supra note 122 pp 286-293 & supra note 123 at pp 222-223.

[129] Jan Jakub Solski, 'Navigational rights of warships through the Northern Sea Route (NSR) – all bark and no bite?' May 31 2019, The blog of the Norwegian Centre for the Law of the Sea, University of Tromso. Available at https://site.uit.no/nclos/2019/05/31/navigational-rights-of-warships-through-the-northern-sea-route-nsr-all-bark-and-no-bite/ accessed on 23 March 2021 & Gudev P.A. The Northern Sea Route: Problems of National Status Legitimization Under International Law. Part I. Arktika i Sever [Arctic and North], 2020, no. 40, p 127.

[130] R. Douglas Brubaker, *The Russian Arctic Straits*. Leiden, Martinus Nijhoff Publishers, 2004, pp 34-35.

[131] For example, the act of 1932 establishing a special legal status of the NSR. There was also no objection to the decree establishing the sector lines in the Arctic in 1926. See supra note 122 at pp 286-289.

[132] For example, in 1965 and later in 2015. See Kamil Bekyashev, Russia's New Rules for Northern Sea Route Violate International Law, March 12, 2019, Polygraph.Info. Available at: https://www.polygraph.info/a/fact-check-russia-claim-arctic/29817535.html accessed on 25 March 2021 & Gavrilov, 2015, supra note 128 at p 259.

[133] In the early 1960s US icebreakers made repeated passage through the NSR, however in 1967 a refusal by the USSR led to cancellation of planned voyages of the US icebreakers. After this 1967 incident, neither the US nor other states have overtly challenged Russia's claim on NSR. See Philipp Kastner, International legal dimensions of the Northern Sea Route, Marcus Matthias Keupp (Ed.) The Northern Sea Route, Springer Fachmedien Wiesbaden 2015 pp 46-47.

[134] Id at p 41.

[135] N. Koroleva, V. Markov and A. Ushakov, Legal Regime of Navigation in the Russian Arctic, INSROP Working Paper No. 94 - 1997, IV.3.1, pp. 23-24.

[136] Documents of the fourteenth session including the report of the Commission to the General Assembly, Yearbook of The International Law Commission, 1962 Volume II p 23.

Moving on to the next part, we shall now see if Russia has drawn straight baselines rightfully under article 7 (1) of the LOS convention. The Russian position vis-a-vis the NSR is more coherent than the Canadian position vis-a-vis the NWP[137] If by liberally interpreting article 7 (1) & 7 (3) and applying the criteria laid down by ICJ in the fisheries case, Canada can fulfill the criteria, Russia is in a stronger position to fulfill the same criteria. It is relevant to note that the doctrine of straight baselines was additionally warranted by historical title of states on these waters and supported by considerations of geography and economics.[138] Hence Russia has drawn straight baselines rightfully under article 7 (1) of the LOS convention.

Now we shall conduct the final part of the study in determining what is the legal status of NSR under international law. At this stage it would be relevant to say that previously we have demonstrated that Russia has rightfully drawn straight baselines under article 7(1) of the LOS convention. However, the claim of straight baselines under a historic title could not be established to the entire NSR waters which reflects in the straight baselines drawn by Russia.[139] Now as far as the right of innocent passage goes through the waters of the NSR, it can be concluded that there exists such a right. Since the Russian claim to the waters as internal waters on the basis of a historic title has failed our test, there is a right of innocent passage under article 8 (2) of the LOS convention. This is further supported by the explicit recognition of the right of innocent passage of all vessels through territorial waters under a 1989 agreement between the US and the USSR.[140]

Next is the determination whether the straits through which the NSR passes, are straits considered to be 'a strait used for international navigation' under part III of UNCLOS and hence the right of innocent/transit passage exists? Drawing conclusions on analogous stream of reasoning as used for NWP[141], the author is of the view that the straits through which the NSR passes are international straits within the meaning of part III of the UNCLOS and hence the right of transit passage exists through those straits. Firstly, the geographical function is met. Secondly the growth in volume of transits should be sufficient to pass the proportionally lower threshold of the functional test laid down in the corfu channel case.[142]

Hence to conclude this part, we can see that the Arctic passages cannot be treated as historic waters and hence do not qualify for a historic title for their respective states. However, Canada and Russia have rightfully drawn straight baselines under provisions of UNCLOS but the right of innocent passage and transit passage under part III of the UNCLOS exist through those passages. This concludes the theory of legality of the Arctic passages.

4.4.2 The practical aspect of the Arctic passages: determining legality of arctic passages' regulations vis-a-vis article 234 of UNCLOS.

In the previous part we assessed the legal status of the arctic passages vis-a-vis the international law of the sea. However, we see that the situation on ground level is not what

[137] Geographically speaking all the islands enclosed by Russia in its straight baselines are far closer in distance to the Russian mainland than the islands enclosed by Canada in its straight baselines. The Russian islands are also closer to being a 'fringe' as defined by the ICJ in the fisheries case. See note 90 and the text thereof.
[138] Supra 72 at p 49.
[139] Furthermore, these straight baselines cannot be drawn according to customary law as some authors have suggested. For the reasons, refer to note 109 and the text thereof.
[140] Lowe, Vaughan. "USA/USSR." International Journal of Estuarine and Coastal Law, vol. 6, no. 1, February 1991, p. 73-76.
[141] Refer to notes 113-119 and the text thereof.
[142] Atle Staalesen, Shipping on Northern Sea Route breaks record, December 22 2020, the Barents observer. Available at: https://thebarentsobserver.com/en/arctic/2020/12/shipping-northern-sea-route-breaks-record accessed on 25 March 2021.

came out as a result of our tests of legality. In fact, both Russia and Canada regulate international transits through these Arctic passages substantially owing to article 234 of the LOS convention. Before delving into the details of Article 234, it is important to have a brief look at the chain of events and regulations that led to the inclusion of Article 234 in the LOS convention. After the incident of passage of the American vessels through the Arctic passages in the late 1960s, the Canadian government passed stricter regulations for controlling marine pollution by vessels in the Arctic waters. At the time it was felt that the regulations were in excess of the authority provided to a coastal state under International law of the sea. It became generally accepted in scientific populace[143] and was necessitated during the negotiation of the LOS convention[144] that the polar regions needed stricter regulations. The Arctic, owing to its fragile ecosystems and vulnerability to pollutants and other adversely affecting substances and phenomena, needed even more urgent attention.[145] Rapidly depleting ice and opening up of these Arctic passages to international navigation further warranted such regulations. Hence Article 234, also known as the Arctic provision was introduced in the LOS convention. It reads, "Coastal States have the right to adopt and enforce non-discriminatory laws and regulations for the prevention, reduction and control of marine pollution from vessels in ice-covered areas within the limits of the exclusive economic zone, where particularly severe climatic conditions and the presence of ice covering such areas for most of the year create obstructions or exceptional hazards to navigation, and pollution of the marine environment 116 could cause major harm to or irreversible disturbance of the ecological balance. Such laws and regulations shall have due regard to navigation and the protection and preservation of the marine environment based on the best available scientific evidence".[146] It has been widely debated whether the applicability of this article is confined to the EEZ of the coastal state or includes all maritime zones landward of the EEZ including the EEZ.[147] The author would like to argue that this article empowers the coastal states to govern all maritime zones landward of their EEZ in relation to controlling maritime pollution.[148] The reasoning in support is two folded. Firstly, had article 234 not been applicable to territorial seas and internal waters, it would defeat the entire purpose of including this article under the LOS convention. It would mean that the coastal state is able to exercise greater power in the EEZ than the territorial sea, which would be absurd.[149] A combined reading of articles 21 (2), 24 (1) and 234 of the UNCLOS suggests that article 234 empowers states to override some of the restrictions imposed on the rights of innocent passage through its territorial sea.[150] Secondly, analogous to the provision

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[143] See Climate change in the Arctic, Norwegian Polar Institute. Available at: https://www.npolar.no/en/themes/climate-change-in-the-arctic/#toggle-id-4 accessed 27 March 2021 & Climate Change in the Arctic, All About Arctic Climatology and Meteorology, National Snow and Ice Data Center, 4 May 2020, University of Colorado, Boulder, USA. available at: https://nsidc.org/cryosphere/arctic-meteorology/climate_change.html accessed 28 March 2021.

[144] The need was recognized by most of the states. See, Roman Dremliuga, A Note on the Application of Article 234 of the Law of the Sea Convention in Light of Climate Change: Views from Russia, Ocean Development & International Law 2017, Vol. 48, No. 2, p 129.
Private and direct negotiations between USSR, the US and Canada before inclusion of this article. See, Jan Jakub Solski (2021): The Genesis of Article 234 of the UNCLOS, Ocean Development & International Law, pp 12 -16.

[145] See Ryan O'Leary, Protecting the Arctic Marine Environment: The limits of Article 234 and the need for multilateral approaches, Journal of Environmental Law and Practice, 23:3 2012, pp 289-290.

[146] Article 234, UNCLOS 1982.

[147] For interesting in-depth debates see for example, Kristin Bartenstein, The "Arctic Exception" in the Law of the Sea Convention: A Contribution to Safer Navigation in the Northwest Passage? Ocean Development & International Law, 42:2011 pp 28-29 & supra note 130 at pp 56-57.

[148] This article is enforceable in internal waters, territorial seas and the EEZ. see supra note 68 at p 47.

[149] R.D. Brubaker, Environmental Regulation in the Russian Arctic, INSROP Working Paper 79-1997, pp 8-9.

[150] For example, 21 (2) does not allow regulations regarding innocent passage to apply to the attributes of a ship except under accepted international rules and standards whereas 234 is broader in scope and hence allows regulation of ships' attributes as well. See further, Kristin Bartenstein, supra note 147 at p 45.

on salmon fishing, article 234 was also drafted by these three Arctic states and its operative language was intended to embrace all waters landward of the EEZ.[151]

Next, we would give interpretation to qualifiers that the areas so intended to be governed should be under ice cover for most of the year and there should be prevalent severe climatic conditions. There have been numerous discussions on the temporal scope of this article and interpretation of the term "where particularly severe climatic conditions and the presence of ice covering such areas for most of the year".[152] Even though the narrower interpretation of this word would mean its enforcement would be warranted only if severe conditions exist and would be more consistent with the regime under article 211, 218-220 establishing regulations for pollution control from vessels[153], this interpretation is not practically viable[154]. Furthermore, the changing ice cover does not affect the application of article 234 when it is interpreted taking into account its implementation by states, objectives sought to be achieved during the negotiations and the relevant provisions of VCLT.[155]

More importantly it is necessary to ascertain the effect of article 234 on the rights of innocent passage and transit passage available through the Arctic passages. The only effect this article has had is a stringent regime of regulations in the waters where it applies, wherein the vessels sailing through these waters have to abide by these stricter restrictions which have slightly modified the rights of innocent passage and transit passage in these waters. Or in other words this article has tilted the balance slightly towards pollution control vis-a-vis freedom of navigation in areas where it is required. Hence to conclude, though there exist rights of passages through both the Arctic passages, the regulatory regimes of the coastal states governing these Arctic regimes are well under their legal limits as prescribed by international law of the sea. However, there is a part of the puzzle missing which shall be elaborated on in the next chapter. The stringent regulations regarding vessel source pollution usually "must be adopted by the coastal State, when 'acting through the competent international organisation or diplomatic conference'".[156] This adoption of regulations in the Arctic will be discussed in the upcoming chapter.

4.4.3 International Passage and Indian state practice:

Delving briefly into the Indian state practice, the maritime zones of India act requires that foreign warships give prior notice to the central government before passing through India's territorial waters.[157] Vide notifications issued by the Central Government of India under the maritime act, India has banned the entry of foreign vessels (save some exceptions) into its maritime zones.[158] These provisions seem to be contrary to the LOS convention which allows the freedom of innocent passage to foreign warships provided the underwater vehicles navigate on the surface and show their flag.[159] India under its declaration upon ratification, claims UNCLOS does "not authorize other States to carry out in the exclusive economic zone and on the continental shelf military exercises or manoeuvres, in particular those involving the use of weapons or explosives without the consent of the coastal State."

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[151] Bernard Oxman, in "Legal Regimes of the Arctic," 40 American Society of International Law Proceedings 315–334, at 334 (1988).
[152] See, Kristin Bartenstein, supra note 147 at pp 30-31 & supra note 130 at pp 54-55.
[153] Supra note 130 at pp 54-55.
[154] Kristin Bartenstein supra note 147 at p 31.
[155] Roman Dremliuga, supra note 144 at p 133.
[156] Supra 130 at p 54.
[157] Supra 52.
[158] Inter alia, SO135E, 'Prohibition of any ships', Ministry of External Affairs Notification New Delhi, The 13th January, 2009.
[159] Section 3, Innocent passage in the territorial sea, UNCLOS.

The LOS convention also allows greater freedom of navigation in the EEZ. The US has protested and conducted operational assertions regularly to demonstrate its non-recognition of this claim.[160] The Indian Act allows for suspension of innocent passage rights "in the interests of the peace, good order or security of India" whereas UNCLOS provides the power of suspension of innocent passage only in the interest of security of the coastal state. Therefore, prima facie the Indian Act seems to be broader in scope, but a reasonable interpretation can be made that the term 'security' is comprehensive enough to include 'peace' and 'good order'.[161]

As far as historic waters go in the Indian context, it is important to note the sole case wherein India's claim to the waters in Palk Bay and the subsequent maritime delimitation agreement with Sri Lanka mention the waters in question as historic waters. Delving into the legality of this claim as historic waters is beyond the purview of this paper since it has no direct correlation with the objectives sought to be achieved by this paper. There is no imminent utility of the NWP for India due to geographical reasons and hence all of India's efforts in the Arctic are being focused on the Northeast passage.[162]

[160] US Navy, 2016. Available at https://www.jag.navy.mil/organization/documents/mcrm/India2016.pdf accessed on 29 March 2021.
[161] Supra note 22 at p 363.
[162] Changes in the Arctic: Background and Issues for Congress, Congressional Research Service, the US Congress, February 1 2021 R41153 p 54. Available at: https://fas.org/sgp/crs/misc/R41153.pdf accessed on 29 March 2021.

Section 4.5 Sustainable shipping in the Arctic: safety of life and marine pollution.
4.5.1 International legal framework:

Continuing with the application of article 234 in the arctic, as mandated by the LOS convention[1] as well as opinionated by the ITLOS[2] and academicians[3] that states should cooperate while framing regulations concerned with shipping. The International Maritime Organization (IMO) is the obvious choice as an ideal forum for international cooperation in this area.[4]

Formerly known as the Inter-Governmental Maritime Consultative Organization (IMCO), the IMO is a specialized agency of the United Nations (UN) which was established with the adoption of the Convention establishing the Inter-Governmental Maritime Consultative Organization (IMCO) at the Geneva conference of 1948. It took another 10 years before the convention came into force after the required conditions were fulfilled. The main reason for this delay in coming into force was the hesitation of some states regarding the objectives the organization sought to achieve. These states feared that their ratification of the convention might lead to a "dangerous interference in [their] practice of free enterprise" and "interference with their own national shipping industries and laws".[5]

For the want of a better understanding of the mechanism of functioning of the IMO, it would be relevant to look at its organizational structure and functions of its organs. The IMO originally consisted of three major organs viz the Assembly, the Council and the Maritime Safety Committee (MSC). The Assembly, as any other international assembly of states, carries out mainly legislative functions. All member states of the IMO are the members of the Assembly and its main tasks are to vote on finances, work towards achieving the objectives set for the agency and to adopt the resolutions submitted to it by the Council and the MSC. The Council which consists of 40 members elected by the Assembly, works mainly as an executive body and as a bridge between the MSC and the Assembly. The real technical work is carried out by the MSC which is also an elected body consisting of all member states. This inclusion of all member states in the MSC was vital in ensuring equal participation of the under-developed states.[6]

At the time of establishment, the main objectives of the organization, inter alia, were to modernize and standardize safety requirements at sea and provide technical assistance in matters of international shipping and hence only one working committee i.e. the MSC was created. First historic success of the IMO was the successful negotiation and adoption of the International Conventional on the Safety of Life at Sea (SOLAS) in 1960. With the development of maritime shipping in general and in the wake of the 1969 Torrey Canyon oil spill, it was realized that the prevention and curbing of marine pollution had become an imminent challenge to be tackled. Two new committees, the Legal Committee (to solidify the international system for assessment of liability and compensation for oil spill damage) and the

[1] Article 197 explicitly requires regional and global cooperation.
[2] In Ireland vs UK, the ITLOS has held that the duty to cooperate is a fundamental principle under marine environment protection. See, International Tribunal for the Law of the Sea (ITLOS); The Mox Plant case (Ireland v. United Kingdom) (2002), 41 I.L.M. 405, p 82.
[3] Donald R. Rothwell and Tim Stephens, *The International Law of the Sea* (Portland: Hart Publishing, 2010), p 343.
[4] Blanco-Bazan, Agustin. "Specific Regulations for Shipping and Environmental Protection in the Arctic: The Work of the International Maritime Organization." International Journal of Marine and Coastal Law, vol. 24, no. 2, 2009, p 381.
[5] Convention on the International Maritime Organization, The IMO. available at: https://www.imo.org/en/About/Conventions/Pages/Convention-on-the-International-Maritime-Organization.aspx accessed on 30 March 2021.
[6] Ibid & Structure of IMO, The IMO. Available at: https://www.imo.org/en/About/Pages/Structure.aspx accessed on 1 April 2021.

Marine Environment Protection Committee (MEPC) (to handle environmental issues) were created. The status of these two committees was elevated to that of the MSC showing the importance these issues had gained. The most important work that came out of these newly established committees was the successful adoption of the International Convention for the Prevention of Pollution from Ships and its modification by protocol of 1978 (MARPOL).[7] Another International Convention relating to Intervention on the High Seas in Cases of Oil Pollution Casualties was adopted in 1969. This convention provided for a coastal state to take such measures in its high seas as appropriate to "prevent, mitigate or eliminate danger to its coastline or related interests from pollution by oil or the threat thereof, following upon a maritime casualty".[8]

There are a few other important conventions adopted by the IMO which will be relevant for the purpose of this chapter. In the past accidents at sea, it was observed that the seafarers lacked the knowledge and skills for implementation of safety measures and procedures. Therefore, to fill this gap in knowledge and execution, the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW) was adopted in 1978 which entered into force in 1984. Along with the SOLAS and the MARPOL, STCW was the third key maritime convention.[9] With the revision in 1995, the convention which mainly consisted of the basic regulations was supplemented and expanded by the adoption of a new STCW Code. Part A of the code is mandatory whereas part B is recommended. Another major change in this revision was the requirement that the parties demonstrate that they have complied with and implemented the convention. Usually, the parties are themselves responsible for implementation of the conventions. This was the first time IMO was called upon to act towards compliance and implementation. Another revision in 2010, known as the Manila amendment was made to further streamline and address the issues that either emerged in the recent past or were likely to emerge in the near future.[10]

The International Convention on Oil Pollution Preparedness, Response and Cooperation (OPRC) was signed in 1990 and came into force in 1995. As the name suggests, it provides a global framework for international cooperation to combat marine oil pollution. [11]

Another important convention was the International Convention on Maritime Search and Rescue (SAR) adopted in 1979 and came into force in 1985. This was the first global agreement covering all the maritime areas of the world making it the first international SAR plan. It divided the oceans in 13 search and rescue areas and each area consisted of separate SAR regions under a particular coastal state's responsibility. However, the number of ratifications of the convention had been relatively quite low due to the high infrastructural burden it placed on states individually. A revision was made in 1998 which emphasized regional approach and coordination between maritime and aeronautical SAR operations. Pursuant to this approach, the IMO and the International Civil Aviation Organization (ICAO)

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[7] Ibid & Brief History of IMO, The IMO. Available at: https://www.imo.org/en/About/HistoryOfIMO/Pages/Default.aspx accessed on 1 April 2021.

[8] International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, 1969, IMO. Available at: https://www.imo.org/en/About/Conventions/Pages/International-Convention-Relating-to-Intervention-on-the-High-Seas-in-Cases-of-Oil-Pollution-Casualties.aspx accessed on 1 April 2021.

[9] List of IMO Conventions, The IMO. Available at: https://www.imo.org/en/About/Conventions/Pages/ListOfConventions.aspx accessed on 2 April 2021.

[10] International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), The IMO. Available at: https://www.imo.org/en/About/Conventions/Pages/International-Convention-on-Standards-of-Training,-Certification-and-Watchkeeping-for-Seafarers-(STCW).aspx accessed on 2 April 2021.

[11] Pollution Preparedness and Response, The IMO. Available at: https://www.imo.org/en/OurWork/Environment/Pages/Pollution-Response.aspx accessed on 2 April 2021.

jointly developed and published the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual.[12]

It is relevant to mention here that the ICAO is another specialized agency of the UN and is the IMO equivalent in terms of regulating international aviation. The ICAO was established by the adoption of the Chicago Convention on International Aviation in 1944. This convention also laid the guiding principles and arrangements for future aviation development.[13]

So far, we have highlighted the international legal framework tackling marine pollution and enabling sustainable usage of maritime regions. Due to its special needs as talked about previously, the Arctic region has seen a tailored maritime protection framework of its own derived from the overarching international framework.[14] Historically a bipolar approach has been taken towards regulating the poles though the differences between the poles have also been considered. Wherever relevant, a comparison and context will be made to the regulations in the Antarctic. To provide a succinct summary, three agreements majorly govern the Arctic specific maritime protection framework. The specifications of this tailoring shall be discussed and analysed in the following paragraphs.

4.5.2 The Polar Code:

4.5.2.1 The failed attempt at the first polar code and the subsequent adoption of the polar code 2017:

Even though the polar code entered into force in 2017, the groundwork was laid in the 1990s focusing on the Arctic.[15] By the early 1990s there were fragmented rules by different coastal states and ship classification societies governing fractured maritime Polar areas which led to a lot of confusion and uncertainty.[16] Germany and Russia approached the IMO for developing supplemental rules for the Polar areas within the SOLAS, MARPOL and other relevant regimes.[17] The 1989 Exxon Valdez oil pollution accident in Alaskan waters also proved to be an imminent factor.[18] Since then, under Canadian leadership, a 'harmonization process' for polar ships was underway to standardize rules and specifications applicable in the Arctic. This process of harmonization was carried out mainly by the Outside Working Group (OWG) established by the IMO. Unlike the LOS convention, this harmonization process was led by polar experts (as part of the OWG) which drafted polar rules while legal and diplomatic experts were also present. With a long-term vision and an integrated approach, the strategy of the OWG was two folded. First was to build upon the existing regime of regulations namely the MARPOL, the SOLAS and the STCW. Second was to separate the drafting of more generic polar rules from the parallel work of the International Association of Classification Societies (IACS)[19] on the detailed specifics of hull and machinery requirements. The former could

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[12] International Convention on Maritime Search and Rescue (SAR), The IMO. Available at: https://www.imo.org/en/About/Conventions/Pages/International-Convention-on-Maritime-Search-and-Rescue-(SAR).aspx accessed on 2 April 2021.

[13] The History of ICAO and the Chicago Convention, The ICAO. Available at: https://www.icao.int/about-icao/History/Pages/default.aspx accessed on 2 April 2021 & the preamble to the convention, Convention On International Civil Aviation Done At Chicago On The 7th Day Of December 1944. Available at: https://www.icao.int/publications/Documents/7300_orig.pdf accessed on 2 April 2021.

[14] Supra note 4 pp. 381-383.

[15] Vidas, Davor. *Protecting the Polar Marine Environment.* Cambridge University Press, 2000 p 254.

[16] Id at p 248.

[17] Ibid.

[18] Weidemann, Lilly. *International Governance of the Arctic Marine Environment*. Vol. 27, Springer International Publishing AG, 2014 p 110.

[19] IASC is a not-for-profit membership organization of classification societies establishing and materializing minimum standards and requirements for maritime safety. It is the principal technical advisor to the IMO and has established rules and requirements which are followed by more than 90% of the world's cargo carrying tonnage. See, about IACS, Introduction, the International Association of Classification Societies, London England. Available at: https://www.iacs.org.uk/about/ accessed on 3 April 2021.

remain constant whereas the latter could adapt to the changing technology over time. Another key feature was the working of a subgroup on the navigation and training elements of the code. This harmonization process also saw the birth of the new Circumpolar Advisory Group on Ice Operations (CAGIO). CAGIO was established by the coastal states which already administered their ice-covered waters and was a unique forum for discussing bipolar navigation issues. Hence in essence, this process of harmonization was a comprehensive global cooperation initiative among the IMO, the OWG, the IASC and the CAGIO to bring together public and private organizations to develop maritime safety in the Polar regions.[20]

In 1998, Canada submitted the 'International Code of Safety for Ships in Polar Waters' on behalf of the OWG to the IMO's Sub-Committee on Ship Design and Equipment (DE). This was the first attempt to adopt a polar code. This code was criticized by the Antarctic Treaty Consultative Parties (ATCP) for being Arctic centric and not taking into sufficient consideration the differences between the Arctic and the Antarctic. Finally, even after the efforts of the ATCM and the committees of the IMO, the deadlock could not be broken and subsequently this draft polar code was approved as non-mandatory 'Guidelines for ships operating in Arctic ice-covered waters' in 2002.[21]

In 2004, South Africa on behalf of the ATCP proposed to the IMO that an amended version of the Arctic guidelines be made applicable to the Antarctic as well.[22] This matter was handled by the DE subcommittee that was of the view that the Arctic guidelines also needed significant update and hence a decision to completely revise the guidelines was approved.[23] With the sinking of the cruise ship MV Explorer off King George Island in Antarctica in 2007, it was increasingly realized that the Antarctic waters also needed the same stringent regulations like the Arctic.[24] Furthermore The Arctic Council Arctic Marine Shipping Assessment 2009 Report also recommended the strengthening, harmonization and regular updation of the "international standards for vessels operating in the Arctic".[25] Once more under the coordination of Canada, the new 'Guidelines for Ships Operating in Polar Waters' were approved by the DE subcommittee and adopted by the Assembly of the IMO in 2009.[26] In 2010, the DE subcommittee agreed to establish a correspondence group under the coordination of Norway to draft a mandatory Polar code.[27] Keeping in mind the lessons from the past, this time an innovative strategy was utilized. A goal based/risk-based approach was formalized along with functional requirements and prescriptive provisions to achieve the requirements.[28] It was also decided that goal-based standards (GBS) would provide the benchmarks against which the safety of the ships will be tested.[29]

Consequently, the International Code for ships operating in polar waters (Polar Code) with an introduction and two separate parts were adopted. The parts concerning maritime safety (Part I) and marine pollution (Part II) and two sub parts with functional requirements (Part I A and II A) (mandatory) and prescriptive provisions (Part I B and II B) (recommendatory) were adopted

[20] supra note 15 at pp 248-250.
[21] Supra note 18 at pp 110-111.
[22] Supra note 18 at 111.
[23] Supra note 18 at pp 111-112.
[24] Hildebrand, Lawrence P, et al. *Sustainable Shipping in a Changing Arctic*. Vol. 7, Springer International Publishing AG, 2018, p 18.
[25] Arctic Marine Shipping Assessment 2009 Report. Arctic Council, April 2009, second printing, p 6.
[26] Supra note 17 at 112.
[27] IMO, Sub-Committee on Ship Design and Equipment, 53rd session, Agenda item 26, 15 March 2010, Report to the Maritime Safety Committee, IMO Doc. 53/26, p. 38.
[28] IMO, Sub-Committee on Ship Design and Equipment, 53rd session, supra note 459, IMO, Sub-Committee on Ship Design and Equipment, 54th session, Agenda item 23, 17 November 2010, Report to the Maritime Safety Committee, IMO Doc. DE 54/23, p. 25.
[29] IMO, Sub-Committee on Ship Design and Equipment, 54th session, Agenda item 13, 27 July 2010, Risk-based concept, Submitted by Germany, IMO Doc. 54/13/1, p. 1.

by the respective committees (the MSC and the MEPC) in 2014 and 2015 respectively. The pertinent amendments to the SOLAS[30] and MARPOL[31] to make the code mandatory also came into force in 2017 hence bringing the code in force starting 1 January 2017.[32] The amendments to the STCW[33] for the training and qualifications of seafarers in the Polar waters were adopted by the MSC in 2016 and came into force in 2018. It has to be emphasized here that the Polar Code has been adopted within the framework of the already existing regulatory regime under SOLAS, MARPOL and STCW and hence is not a separate instrument but an extension of the existing regime. Therefore, all the definitions and application criteria for the Polar Code are the same as the SOLAS and the MARPOL unless expressly provided otherwise. The definition of 'Polar Waters' in which the code is applicable, is the same under both the conventions.[34] The application of the Code to ships varies by Part. Part I on safety is applicable to ships certified under the SOLAS i.e. all cargo ships of 500 tons or more and all passenger ships.[35] Hence we can say that it applies to cargo ships, oil tankers, bulk carriers, container ships and cruise ships but does not apply to fishing vessels, warships and other government vessels used only in government non-commercial service and pleasure yachts.[36] The Part II on environmental regulations and pollution control is applicable to all the ships certified under the MARPOL annexes I, II, IV and V respectively.[37] Hence we see that the scope of application of Part II is greater than Part I and fishing vessels which might be exempted from complying with the safety part of the code will have to comply with the environmental part.[38]

4.5.2.2 Salient features and achievements of the Polar Code in the context of the Arctic.

As stated by the Polar Code, its goal is to provide that extra safety and environmental protection which is not currently provided by the existing international regime. To experience the peculiar challenges present in the Arctic/Polar areas as compared to anywhere else in the world see the coverage by the Norwegian broadcaster NRK (Norsk rikskringkasting AS) of the

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[30] Chapter XIV was added to the SOLAS convention to make the Polar Code mandatory. See supra note 24 at pp 28-29. Also see, Chapter XIV, SOLAS 2018 Consolidated Edition.

[31] Annexes I, II, IV and V of the MARPOL were amended to make the Code mandatory. See supra note 24 at p 29. For amendments see, Report of The Marine Environment Protection Committee on Its Sixty-Eighth Session, Marine Environment Protection Committee 68th session Agenda item 21 MEPC 68/21 29 May 2015 pp 44-47.

[32] IMO, Marine Environment Protection Committee, 68th session Agenda item 21, 5 June 2015, IMO Doc. 68/21/Add.1 Annex 10, page 7 & supra note 24 at p 19.

[33] Both the convention and the Code have been amended. All the seafarers going to the Polar waters have to be trained for specifications as added into the Code and hold a certificate for appropriate training under the convention. See supra note 23 at p 31. For amendments see, Consideration and Adoption of Amendments to Mandatory Instruments, Amendments to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), 1978, as amended, & the Seafarers' Training, Certification and Watchkeeping (STCW) Code, Maritime Safety Committee 97th session Agenda item 3 MSC 97/3/2, 15 August 2016.

[34] Deggim, H. (2018). The International Code for Ships Operating in Polar Waters (Polar Code). WMU Studies in Maritime Affairs, p 29. While the definition of the Antarctic area is relatively easy, i.e., sea area south of latitude 60 degrees South, the 'Arctic waters' are defined in a rather complicated way to exclude a major part of what is understood to be the Arctic under other definitions (for example north of the Arctic circle). See Chapter XIV, SOLAS 2018 Consolidated Edition. For an easier understanding see the area definition on the global map in supra note 24 at p 30.

[35] Chapter XIV defines applicability to be the same as under chapter I of SOLAS. Refer to chapter XIV and regulations 1,2 and 3 of Chapter I of the SOLAS.

[36] Ibid & Supra note 24 at p 198.

[37] For details on the amendments see, Consideration and Adoption Of Amendments To Mandatory Instruments, Draft amendments to MARPOL Annexes I, II, IV and V to make use of environment-related provisions of the Polar Code mandatory, Marine Environment Protection Committee 68th session Agenda item 6 MEPC 68/6 21 January 2015.

[38] PAME, The Polar Code, Protection of the Arctic Marine Environment. Available at: https://pame.is/projects/arctic-marine-shipping/the-arctic-shipping-best-practices-information-forum/the-polar-code accessed on 4 April 2021 & Introduction, IMO Polar Code, DNV (Det Norske Veritas). Available at: https://www.dnv.com/maritime/polar/index.html accessed on 4 April 2021.

grounding of MS Northguider in the Svalbard area.[39] One unique feature of the Code is the utilization of the risk-based/goal-based approach to regulations rather than the traditional prescriptive rules and repercussions-based model. The flexibility provided by the GBS regulations had a positive impact on adoption and compliance with the code given the historic fallout during the earlier attempt to agree on a Polar Code. It was also easier to agree on GBS regulations rather than prescriptive regulations.[40] Pursuant to its risk-based approach, in the introduction, sources of hazard peculiar to the Polar regions have been identified. Pursuant to GBS standards, Part I A on safety measures has been divided into chapters and each chapter consists of the overall goal, the functional requirements to fulfill the goal and regulations under that chapter. Under this part the major requirements to be fulfilled are i) there shall be a Polar Ship Certificate (PSC) on board all the vessels in Polar waters. A PSC is a statutory certificate demonstrating that the vessel is compliant with safety regulations under the Code. It is issued by the flag state administration or any other entity it[41] authorizes under the SOLAS regulations. A PSC classifies ships into three categories A, B and C such that the first indicates enhanced ice-navigation capabilities while B indicates medium capabilities and C with the lowest capabilities.[42] Lastly, in order to get a PSC, a vessel has to perform certain risk assessments and verifications of compliance along with developing and carrying a Polar Water Operations Manual (PWOM) on board. ii) All personnel shall carry appropriate certificates of qualification, training and experience in compliance with the STCW convention and Code as mentioned under chapter 12. iii) lastly before every voyage, voyage planning shall be conducted taking into account the PWOM and other factors as mentioned under chapter 11.[43] Part I B provides additional guidance on fulfilling obligations under part I A and introduction to the Code.[44]

Under Part II A, marine pollution prevention, each chapter consists of definitions, operational requirements and structural requirements. Under this part it is prohibited to discharge in the Polar waters, in any form, the pollutants including oil and oily mixtures (except the discharge of clean and segregated ballast in the Arctic), noxious liquid substances (NLS), sewage waters (unless done in accordance with MARPOL requirements mentioned therein) and garbage (unless carried out in accordance with MARPOL requirements mentioned therein). Part II B provides additional guidance on fulfilling obligations under part II A and introduction to the Code, inter alia, for ballast water management, antifouling and biofouling.[45]

4.5.2.3 Addressing the shortcomings of the code in the context of Arctic; Polar Code phase II:

Even though a mandatory regulatory regime for shipping in the Arctic is a much needed and welcome step, this regime is still at its nascent stage. Since the implementation of the Polar Code, a number of loopholes and gaps especially in the context of the Arctic have been

[39] Though written in Norwegian, in-browser translation with google or any other translator works good enough. Astrid Rommetveit, Anders Nøkling. Alene mot Barentshavet (Alone towards the Barents Sea) 3. FEB. 2019. Available at: https://www.nrk.no/vestland/xl/alene-mot-barentshavet-1.14381609 accessed on 4 April 2021.
[40] Lisell A. Donatello Bang, Is the Polar Code living up to its purpose? A case study of the Polar Code as regulating Arctic shipping, UiT The Arctic University of Norway, pp 3-4 & 60-61. Available at: https://munin.uit.no/handle/10037/18657 accessed on 4 April 2021.
[41] Mostly classification societies such as the Norwegian DNV. See more at: https://www.dnv.com/about/index.html accessed on 4 April 2021.
[42] See Polar Code definitions.
[43] Originally adopted as Arctic guidelines in 2008 by the assembly of the IMO, Guidelines on Voyage Planning for Passenger Ships Operating in Remote Areas served as the background for voyage planning under the Polar Code. see Resolution A.999(25) Adopted on 29 November 2007 Guidelines on Voyage Planning for Passenger Ships Operating in Remote Areas, IMO Assembly.
[44] Hasebe, Masamichi. "New Developments and Challenges in Arctic Navigation and the Polar Code." Revue Belge de Droit International / Belgian Review of International Law, vol. 51, no. 2, 2018, p. 347-349.
[45] Id at p 349.

identified. In the following paragraphs, the gaps of particular concern shall be enumerated upon and discussed.

Under SOLAS, the code is only applicable to international voyages wherein a vessel makes a voyage to a port outside the country. This definition leaves some scope of interpretation and a lot of voyages can be considered to be outside the scope of the Code. For example, a trip by a Russian vessel on the NSR from some port on the east (say Beringovsky) to the west (say Murmansk) would not be covered by the Code and hence need not comply with the safety part of the Code. Furthermore, whether a Norwegian vessel voyaging from Norwegian mainland to Svalbard, or the Antarctic Norwegian claimed territory has the obligation to comply with the Code is not very clear.[46] In the two aforementioned instances both the respective countries have clarified such doubts[47] but such instances of doubt are bound to occur in the future. Hence it would be in the interest of safety and avoidance of multiple interpretations that the limits of application of the Code are further clarified and updated. The MSC has already agreed that the geographical scope of application of the safety features of the Code to non-SOLAS ships should not be limited to international voyages.[48] The MSC has also agreed to consider including non-SOLAS vessels particularly fishing vessels, pleasure yachts above 300 gross tonnage not engaged in trade and cargo ships above 300 (currently 500) gross tonnage under the scope of the Code.[49] As noted above these vessels are currently beyond the coverage of the Code.

Furthermore, the Code is not applicable to many areas of the Arctic that require its application. Currently the southern Bering Sea, and large parts of the Barents Sea, the Norwegian Sea and the northern Atlantic Ocean around the coasts of Iceland are left out of the purview of the Code. A lot of these areas can be categorized as 'ice-covered areas' mentioned in the sources of hazard under the introductory part of the Code but have been excluded from the scope of the Code. Due to growing shipping activity in the region and underlying inherent risks, it would be critical to "cover the part of the Bering Sea and the Sea of Okhotsk to sea ice edge 1981–2010 line instead of an arbitrary line".[50]

Another major challenge is the loose regulation of Heavy fuel oil (HFO) and Black Carbon (BC) in the Arctic. HFO is a major source of pollution[51] and poses greater risk[52] to vulnerable areas like the Polar regions. In 2015, incomplete combustion of HFO was responsible for two thirds of Black Carbon emissions from shipping operations in the Arctic.[53] In the Arctic, Black Carbon is one of the most potent climate change inducers and also adversely impacts health of the coastal communities.[54] For these reasons, the use and carriage of HFO in every form

[46] Supra note 40 at pp 62,68-69.
[47] Norway considers such trips as International and Russian domestic regulations for NSR are apparently stricter than the Polar Code safety regulations. See supra note 40 at p 69.
[48] Maritime Safety Committee 99th session Agenda item 22 MSC 99/22* 5 June 2018 Report of The Maritime Safety Committee on Its Ninety-Ninth Session p 43.
[49] Id at p 44.
[50] Meric Karahalil, Burcu Ozsoy & Ozgun Oktar, 'Polar Code application areas in the Arctic', WMU Journal of Maritime Affairs (2020) 19: pp 230-232. https://link-springer-com.ezproxy.ulapland.fi/content/pdf/10.1007/s13437-020-00200-4.pdf accessed on 4 April 2021.
[51] It produces airborne emissions, ozone depleting substances as well as greenhouse gases and particles. See, Zhen Sun, International Regulation of Heavy Fuel Oil Use by Vessels in Arctic Waters, the International Journal of Marine and Coastal Law 34 (2019) pp 516-517, Koninklijke Brill NV, Leiden, 2019.
[52] Difficult to clean after a spill and has significant negative impacts on the marine environment. See id at pp 517-518.
[53] Supra note 51 at p 520.
[54] U.S. Environmental Protection Agency, Methane and Black Carbon Impacts on the Arctic: Communicating the Science, 2016 pp 4-9. Available at: https://19january2017snapshot.epa.gov/sites/production/files/2016-09/documents/arctic-methane-blackcarbon_communicating-the-science.pdf accessed on 4 April 2021.

is banned in the Antarctic[55] whereas in the Arctic its use is discouraged[56]. Given the growing shipping activity and the amount of black carbon it generates, a ban on HFO in the Arctic is imperative.

The MEPC delegated the task of assessing a ban on HFO in the Arctic to the subcommittee on Pollution Prevention and Response (PPR). PPR in turn formed a working group on HFO in Arctic waters and the working group developed a working definition of HFO in the context of the Arctic. The next step was to seek an impact assessment report from the Arctic coastal states regarding the effects of such a ban on the coastal communities and their Arctic regions in general.[57]

Every coastal Arctic state except Russia has been in favour of banning HFO in the Arctic. Russian concerns extend to the wellbeing of the Arctic coastal communities lest the higher cost of fuels will have an adverse impact on the livelihood of these communities. According to Russia "It is envisaged that the matter of impact assessment should be the financial burden which would come upon local communities and the region as a whole rather than the benefits related to the unspent costs for response and clean-up of an unlikely spill". It is important to note here that HFO is cheaper than the other fuels used in shipping. Recently the working group submitted a report recommending a ban on HFO in the Arctic starting July 1 2024 and the ban was approved by the MEPC[58]. However, the ban will be subject to certain reservations. Adding to the ban in the Antarctic, the ban in the Arctic shall not be applicable to vessels engaged in SAR operations and oil spill preparedness and response. Furthermore, at Russia's behest, coastal states may waive the ban for vessels flying their own flag and operating in their sovereign waters until July 1, 2029.[59]

As far as regulating BC emissions goes, the IMO is making progress towards first developing a standardised sampling, conditioning, and measurement protocol for BC emissions[60] and then making commensurate policy decisions to effectively mitigate it. India has also been playing an active role in the discussions on mitigating BC in the Arctic at IMO's subcommittee on PPR.[61] However, according to certain environmentalists the ban on HFO is too weak and the regulations continue to be loose.[62]

It is relevant to mention here that the opinions of the Indigenous people are taking centre stage at these discussions at the IMO[63] which follows from the fact that the Inuit Circumpolar Council

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[55] Marine Environment Protection Committee 60th session Agenda item 5 MEPC 60/5 14 September 2009 Consideration and Adoption of Amendments to Mandatory Instruments.
[56] Additional guidance to chapter 1, Part II B, Polar Code.
[57] Supra note 51 at pp 525-530 & supra note 44 at pp 351-353.
[58] Isabelle Gerretsen, UN shipping body approves Arctic heavy fuel oil 'ban', delayed for a decade, 20/11/2020, Climate Home News. Available at: https://www.climatechangenews.com/2020/11/20/un-shipping-body-approves-arctic-heavy-fuel-oil-ban-delayed-decade/ accessed on 4 April 2021.
[59] Mia Bennett, Ban on Heavy Fuel Oil in Arctic Shipping Moves Ahead, The Maritime Executive 02-23-2020. Available at: https://www.maritime-executive.com/editorials/ban-on-heavy-fuel-oil-in-arctic-shipping-moves-ahead accessed on 5 April 2021.
[60] Sub-Committee on Pollution Prevention and Response, 8th Session Agenda Item 5 PPR 8/INF.3, Reduction of The Impact on The Arctic Of Emissions of Black Carbon from International Shipping International Technical Working Group on the Development of a Standardized Sampling, Conditioning and Measurement Protocol for Black Carbon Emissions from Marine Engines, 15 January 2021.
[61] Sub-Committee on Pollution Prevention and Response, 8th session Agenda item 5 PPR 8/5, Reduction of The Impact on The Arctic Of Emissions of Black Carbon from International Shipping, 18 December 2020.
[62] Anna Barford & James Gamble, Ban on heavy fuel oil in the Arctic is too weak, April 13, 2021, Policy Options. Available at: https://policyoptions.irpp.org/magazines/april-2021/ban-on-heavy-fuel-oil-in-the-arctic-is-too-weak/ accessed on 5 April 2021.
[63] Supra note 59.

(ICC) has applied for consultative status with the IMO which will enable even greater participation in future decision making. A decision by the IMO is expected in July 2021.[64]

Another criticism of the Polar Code is the criticism of the GBS approach. Even though the GBS approach is quite flexible and suitable for most of the states, it has some inherent flaws which are likely to manifest at the level of execution of standards by various states. There remains an element of subjectivity vis-a-vis interpretation of functional requirements and the procedures used to achieve the goals set therein.[65] Usage of words like 'sufficient' and 'adequate' leaves scope for reaching different conclusions in similar scenarios and hence the level of a coastal state's or classification society's knowledge and experience in Polar waters plays a critical role. For example, the granting of a PSC by the Indian classification society, Indian Register of Shipping (IRClass) would follow different technical measurements and procedures compared to the Norwegian DNV because of the difference in knowledge and experience both the societies have in Polar waters. It is more likely that the certificate issued by DNV is closer to actual risk mitigation in the Arctic than the one issued by IRClass. Similar is the case with certificates of training of the vessel crew for Polar waters.[66] From the Arctic maritime safety perspective, experience acquired by the crew of Arctic coastal states is far more critical than relatively inexperienced non-Arctic states like India making their entry into the Arctic waters. While building its Polar vessel and training its crew, it would be of vital significance that India emphasizes on prior knowledge and experience in Polar waters and opts its ship builder/s and crew trainers accordingly and has crew members who have previous experience in Arctic sailing.[67]

This element of special knowledge and expertise in the context of Arctic waters makes cruise ships extra-vulnerable. Also referred to as "low probability, high consequence accident" presence of a large number of people on cruise ships makes it an additional challenge for SAR operations.[68] During the three Arctic SAR exercises from 2016-2017, it was demonstrated that the current SOLAS-certified life-saving appliances approved for Arctic waters do not satisfy the functional requirements of the Polar Code.[69] Hence there is a need for betterment of survival equipment to meet the functional requirements of the Polar Code and companies are already working on the same.[70]

Another work left to the states and not made mandatory by the Code is the prevention of Arctic waters from foreign invasive species. The instances of marine bio invasions in the Arctic are growing with the growth of shipping in the region. Moreover ecological theory and evidence suggest that the relatively low biological diversity of the Arctic marine environment results in low biotic resistance hence making it susceptible to bio invasions.[71] Hence there is a need to control this invasion happening mainly through ballast water or biofouling of the ships.[72] Even though the Code acknowledges the risk of invasive aquatic species transfers via biofouling, it

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[64] The ICC, ICC Presents Case for Consultative Status to IMO Council, March 1, 2021 – Ottawa, Canada. Available at: https://www.inuitcircumpolar.com/news/icc-presents-case-for-consultative-status-to-imo-council/ accessed on 6 April 2021.
[65] Espen Engtrø, Ove Tobias Gudmestad & Ove Njå. "Implementation of the Polar Code: Functional Requirements Regulating Ship Operations in Polar Waters" Arctic Review on Law and Politics, Vol. 11, 2020, p 61.
[66] Supra note 40 at pp 65-66.
[67] Supra note 40 at pp 60-61.
[68] Supra note 40 at pp 62-64.
[69] Supra note 40 at pp 54-57.
[70] Mia Bennett, The Polar Code, One Year On, 04-06-2018, The Maritime Executive. Available at: https://www.maritime-executive.com/magazine/the-polar-code-one-year-on accessed on 6 April 2021.
[71] Marine Environment Protection Committee, 69th session Agenda item 4 MEPC 69/INF.17, 'Harmful Aquatic Organisms in Ballast Water Ship-mediated bioinvasions in the Arctic: pathways and control strategies', Submitted by FOEI, p 37, 9 February 2016.
[72] Hendrik Schopmans, Revisiting the Polar Code: Where Do We Stand? June 11, 2019, The Arctic Institute. Available at: https://www.thearcticinstitute.org/revisiting-polar-code/ accessed on 6 April 2021.

leaves up to the vessels to adopt measures to prevent it.[73] While the Code bans discharge of oil or oily mixtures from any ship, discharge of clean or segregated ballast is allowed. The 2004 IMO convention for the Control and Management of Ships' Ballast Water and Sediments entered into force in 2017. It remains to be seen if the convention on Ballast waters is sufficient to protect invasion of foreign species in the Arctic.[74]

Another important issue that the Code is silent about is the noise from commercial shipping and its adverse impacts on marine life in the Arctic. Though the IMO has implemented recommendatory guidance on the reduction of underwater noise from commercial shipping, these guidelines are not sufficient for the Arctic. The plying of icebreakers poses additional threats to Arctic mammals.[75]

Apart from the Polar Code, two additional legally binding agreements have been concluded to strengthen the safety and pollution control regime in the Arctic.

4.5.3 Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic:

Though there exist other multilateral and bilateral SAR agreements in the Arctic[76] the first legally binding pan-Arctic SAR agreement was signed among the 8 Arctic states in 2011 in Nuuk Greenland and came into force in 2013. It was also the first legally binding agreement in the Arctic under the auspices of the AC and takes precedence over other instruments in the Arctic.[77] In the 2009 Tromso declaration, the AC established a task force on search and rescue (TFSR) to develop and complete negotiation of an international instrument on cooperation on search and rescue operations in the Arctic.[78] The agreement is derived from the emphasis on regional SAR agreements under the 1998 revision to the International SAR convention of 1979, the Chicago convention, article 98 of the LOS Convention and the IAMSAR manual as mentioned above.[79] Noting the key features of the agreement, all the states have demarcated their geographic zone of responsibility without prejudice to the delimitation of boundaries between them under international law. Such demarcation of zones brings efficiency in emergency response and removes possible confusions.[80] The parties have also earmarked their respective agencies and functions under a three-layered command system.[81] The regime for entering each other's territories has been simplified under the agreement and cooperation measures have been identified.[82] This cooperation under the agreement has been actively demonstrated by the states. As stipulated by article 9 of the agreement, this implementation of cooperation has focused on multilateral institution building and joint training exercises. A significant achievement in institution building has been the establishment of the Arctic Coast

[73] Part II B 4.3 of the Polar Code.
[74] Submission to the Arctic Shipping Best Practice Information Forum May 2017, Circumpolar Conservation Union, p 12. Available at: https://wwf.ca/wp-content/uploads/2020/03/Submission-to-the-Arctic-Shipping_May-2017.pdf accessed on 7 April 2021.
[75] Trevor Riley & Shanna Hollich, The Arctic: Anthropogenic Noise, Shipping, Impact on Marine Mammals, & Future Management, U.S. Department of Commerce National Oceanic and Atmospheric Administration Office of Oceanic and Atmospheric Research NOAA Central Library – Silver Spring, Maryland, pp 24-34.
[76] See supra note 82 at pp 58-59.
[77] Natalia Loukacheva, The Arctic Council and "Law-Making" The Northern Review 50 (2020): p 119.
[78] Tromsø Declaration On the occasion of the Sixth Ministerial Meeting of The Arctic Council, 29th April 2009, Tromsø, Norway p 5.
[79] The preamble, Arctic SAR agreement.
[80] Supra 82.
[81] The top political layer is mentioned as 'competent authorities', the middle layer mentions functionally and territorially competent units of the governments as 'agencies and the bottom layer/executional responsibility lies with the 'rescue coordination centers'. See, A.K. Sydnes et al. ''International Cooperation on Search and Rescue in the Arctic.'' Arctic Review on Law and Politics, Vol. 8, 2017, pp. 109-136.
[82] Natalia Loukacheva editor, Polar Law Textbook II, Nordic Council of Ministers, pp 57-60, 2013.

Guard Forum (ACGF) in 2015 which brings together personnel from the coast guards and other SAR agencies of the Arctic states to conduct workshops, training, and annual meetings. The AC working group on EPPR acts as a facilitator for implementation of the agreement and has established a permanent SAR Experts Group to monitor and promote the implementation of the SAR Agreement.[83]

However certain criticisms of the agreement remain to hold weight. The agreement is closer to an MoU rather than a legally binding agreement and can be said to be the "least-binding international legal agreement that a state can sign". Furthermore, the agreement does not specify any resources that a party is obliged to provide or procure, and the implementation is subject to availability of relevant resources.[84]

As far as India and cooperation on SAR is concerned, the AC counterpart of the Indian Ocean is the Indian Ocean Rim Association (IORA).[85] India has been a founding member of the IORA and concluded an MoU with it for closer cooperation in SAR activities in the region.[86] One interesting thing to note here is the difference between the Indian Ocean region (IOR) and the Arctic Ocean Region (AOR) in context of SAR operations. Whereas in the IOR, besides the coast guards, navies of the maritime states also conduct SAR operations and joint exercises[87], in the AOR, SAR operations and joint exercises are mainly under the jurisdiction of the Coast guards. Even though the navies of AOR states cooperate on SAR with the Coast guards of other states[88], navies of two or more states have never held joint SAR exercises. Given the military infrastructure the Arctic states have created over the years, it would certainly help mitigate the issue of lack of SAR resources in the region if the navies of the AOR states also started cooperating like the IOR. In the words of the co-chair of the TFSR, the military infrastructure and cooperation among the Arctic states would surely be additional assets in the practical implementation of the SAR and other emergency response operations.[89] Therefore, in the interest of a safer Arctic, it would be a progressive step forward if the AOR navies also cooperated and held joint exercises in context of SAR operations i.e., conducted military cooperation and defence diplomacy in SAR operations in the Arctic.[90]

4.5.4 Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic:

The structure of the agreement is similar to that of the Arctic SAR agreement[91] and hence the structure of this section is similar to the previous one. Differences will be highlighted and

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[83] Joachim Weber ed., *Handbook on Geopolitics and Security in the Arctic*, Springer Nature Switzerland AG (2020), pp 283-284.

[84] Svein Vigeland Rottem (2015) A Note on the Arctic Council Agreements, Ocean Development & International Law, 46:1, pp 50-59.

[85] As approved at the Council of Ministers (COM) (IORA Secretariat Durban, eThekwini, South Africa) 2 November 2018, p 1, Charter of The Indian Ocean Rim Association (IORA).

[86] Welcoming India as the 14th Signatory of the IORA MoU on Search and Rescue, Disaster Risk Management, 24 September 2020. Available at: https://www.iora.int/en/events-media-news/news-updates-folder/welcoming-india-as-the-14th-signatory-of-the-iora-mou-on-search-and-rescue#:~:text=Mauritius%2C%2024%20September%202020%3A%20The,in%20the%20Indian%20Ocean%20Region accessed on 8 April 2021.

[87] Under the Indian Ocean Naval Symposium (IONS) IOR navies conduct joint SAR exercises. See, Ankit Panda, 'Indian, Chinese Navies to Participate in Search-and-Rescue Naval Drill', August 14, 2017, the Diplomat. Available at: https://thediplomat.com/2017/08/indian-chinese-navies-to-participate-in-search-and-rescue-naval-drill/ accessed 8 April 2021.

[88] U.S. Coast Guard conducts joint Arctic operations, scientific research off Greenland, Kate Kilroy and Sara Muir, U.S. Coast Guard Atlantic Area, DVIDS/DMA (Defense Media Activity) . available at: https://www.dvidshub.net/news/379674/us-coast-guard-conducts-joint-arctic-operations-scientific-research-off-greenland accessed 8 April 2021.

[89] Supra note 82 at p 63.

[90] Heather Exner-Pirot (2012) Defence diplomacy in the Arctic: the search and rescue agreement as a confidence builder, Canadian Foreign Policy Journal, 18:2, 195-207.

[91] Supra note 84.

analysed wherever relevant. Though there exist other multilateral and bilateral Marine Oil Pollution Preparedness and Response (MOPPR) agreements in the Arctic[92] the first legally binding pan-Arctic MOPPR agreement was signed among the 8 Arctic states in 2013 in Kiruna, Sweden and entered into force in 2016. It was the second legally binding agreement in the Arctic under the auspices of the AC and takes precedence over other instruments in the Arctic. In the 2011 Nuuk declaration, the AC established a task force on Arctic Marine Oil Pollution Preparedness and Response to develop and complete negotiation of an international instrument on cooperation on MOPPR in the Arctic.[93] The agreement is derived from the relevant provisions of the LOS convention (primarily article 234), the 1990 convention on OPR and the 1969 convention on Intervention on the High Seas in Cases of Oil Pollution Casualties as mentioned above.[94] Interestingly the agreement also makes mention of the environmental law principle 'polluter pays'.[95]

Noting the key features of the agreement, all the states have demarcated their geographic zone of responsibility without prejudice to the delimitation of boundaries between them under international law.[96] However this demarcation is different from the SAR agreement as in the SAR agreement, the northern limits of the jurisdiction end at the north pole, whereas in the present agreement, the northern limits might go beyond the national jurisdiction under LOS convention, but it should be consistent with International law.[97] Hence we see that while SAR operations in the High seas of the AOR are guaranteed under the SAR convention, the present agreement is equivocal on MOPPR in the High seas of the AOR. The present agreement also utilises a tripartite national system, one organ of a state not necessarily functioning under the other. The national competent authorities (not necessarily political but also administrative and other agencies).[98] The agreement mandates 24-hours operational contact points to receive and transmit oil pollution reports. Though round the clock functional points were already established before the agreement was discussed, this obligation comes as a strengthening of the present legal regime on the Arctic MOPPR.[99] Similar to the SAR agreement, movement across borders has been tried[100] to be simplified[101] and cooperation measures have been identified, inter alia, on notifying other concerned parties in case of a spill[102], joint monitoring of oil pollution incidents especially in cases of transboundary impacts[103], exchanging information and making it public wherever possible[104], and the obligation to cooperate and assist in case assistance is sought to respond to an incident[105]. The EPPR, in 2016, created

[92] Ingvild Hoel Rise, The Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic, June 2014, UiT, pp 35-49. https://munin.uit.no/bitstream/handle/10037/6629/thesis.pdf?sequence=2&isAllowed=y accessed 9 April 2021 & EPPR, 2019, Legal issues related to the Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic (MOSPA) - Summary Report, Emergency Prevention Preparedness and Response (EPPR) p 6.
[93] Nuuk Declaration On the occasion of the seventh Ministerial Meeting of The Arctic Council, 12 May 2011, p 4.
[94] The preamble, Arctic MOPPR agreement.
[95] Ibid.
[96] Article 3 read with article 26 of the agreement.
[97] Article 3 of the agreement.
[98] Ibid.
[99] Kristian Cedervall Lauta, 'A Drop in the Ocean', Arctic Review on Law and Politics, vol. 5, 2/2014 p 241.
[100] The provisions do not oblige but merely encourage states to grant permissions for foreign states' personnel and equipment to enter their jurisdictional waters. See EPPR, 2019, Legal issues related to the Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic (MOSPA) - Summary Report. Emergency Prevention Preparedness and Response (EPPR). p 7.
[101] MOSPA Article 9.
[102] MOSPA Article 6.
[103] MOSPA Article 7.
[104] MOSPA Article 12.
[105] MOSPA Article 8.

the Marine Environmental Response Experts Group to promote the implementation of EPPR's activities related to the marine oil pollution agreement.

Though there are other features of the agreement that emphasize its cooperative nature, it has been argued that this agreement adds very little to none and rather symbolic value to the already existing International OPRC convention. The criticism of the agreement remains that the provisions of the agreement are so worded as to leave substantial discretionary margin for the parties and the agreement is in fact a regional agreement under article 10 of OPRC though it makes no such reference.[106]

The South Asian counterpart of the AC is the South Asia Co-operative Environment Programme (SACEP)[107] and the south Asian non-legally binding counterpart of the Arctic MOPPR agreement is the Regional Oil Spill Contingency Plan of 1989. India has signed an MoU with SACEP for cooperation on OPPR in the south Asian seas.[108]

4.5.5 Conclusion:

Hence, we see that the jurisprudence of International Environmental Law in the Arctic is at its nascent stage. As far as environmental protection goes, the Arctic also suffers, slightly, from a vicious circle with two elements i.e., lack of infrastructure to enforce strict regulations and inability of the Arctic states to make strict regulations. On the optimistic side though, Arctic rulemaking has come quite far from where it started, and we see continuous progress here despite the same states regressing in cooperation elsewhere in the world. As concluding words, it would be relevant to talk about the future of Environmental rulemaking in the Arctic and what scope lies ahead. Coming back to the first element of the vicious cycle mentioned above, the lack of port reception facilities in the Arctic contributes to loose regulations and enhanced risk since without infrastructure, it is impossible to enforce strict regulations.[109] For example the effective implementation of port state control under the Polar Code is compromised because of lack of port reception facilities. Furthermore, lack of reception facilities makes it impossible to implement stringent rules on dumping and discharge of harmful land-based waste and sewers.[110] One such measure being adopted to tackle the problem of shortage of port reception facilities is the adoption of Regional Reception Facilities Plan (RRFP) in the Arctic.[111]

A viable starting point for further Environment protection in the Arctic could be to get a status of Special Area under MARPOL or Particularly Sensitive Sea Area (PSSA) under IMO. As pointed out by the DNV report, due to its superior adaptability features that cater to a variable Arctic, establishment of a PSSA in the Central Arctic Ocean along with associative protective measures (APMs)[112] of a VTS (vessel traffic system) with SRS[113] (ship reporting system)

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[106] For example, the provisions on joint exercises and training remain short of laying down scope, ambition, frequency, or extent of such activities and mentions it such that the "success of the exercises is entirely reliant on the implementation of the parties, rather than the fulfillment of the legal obligation". See supra note 99 at p 243-244.

[107] About Us, South Asia Co-operative Environment Programme (SACEP). http://www.sacep.org/about-us

[108] India okays MoU to tackle oil spills, 12 May 2018, ANI news. Read more at: https://www.aninews.in/news/world/asia/india-okays-mou-to-tackle-oil-spills201805121540410004/ accessed 10 April 2021.

[109] Supra note 24 at p 317-318.

[110] Supra note 40 at pp 47-48.

[111] PAME, Regional Waste Management Strategies for Arctic Shipping Regional Reception Facilities Plan (RRFP) and Proposal for IMO Consideration, PAME. Available at: https://pame.is/document-library/pame-reports-new/pame-ministerial-deliverables/2017-10th-arctic-council-ministerial-meeting-fairbanks-alaska-usa/279-regional-reception-facilities-plan-and-draft-submission-for-imo-for-approval/file accessed on 9 April 2021.

[112] APMs are indispensable vis-a-vis a PSSA because mere declaration of PSSA serves no purpose unless some special protective measures are also applied to protect that area. See supra note 114 at p 68.

[113] VTS is a shore sided system which utilizes SRS, among others, as a useful tool in remote areas for a timely response to an emergency. For example, the Norwegian VTS at Vardø. See supra note 114 at pp 49-50 & 70-71

would be the preferred choice.[114] An SRS in the Barents area between Norway and Russia is already mandatory.[115] Furthermore, the Polar Code imposes stricter regulations in the Arctic than general MARPOL restrictions in spite of a scarcity of availability of Port reception facilities and makes it a Special Area without expressly saying so.[116]

In view of the author, the Arctic does present significant challenges and needs extra environmental protection but lack of international shipping at the moment gives good enough reason to the coastal states to defer application of stricter regulations. However, as we have seen this situation is going to change in the future and with increased traffic in the Arctic, the environmental protection regime will also have to respond accordingly. It remains to be seen whether this regime will play the game of catching up as the international regime has historically done (major regulations came up after major marine accidents which angered and agitated humanity) or will it set up a precedent of proactive preventive measures. In certain Arctic issues however, this precautionary principle has been put to practice which shall be talked about in the next chapter on fisheries.

Lastly as far as India's role in the Arctic is concerned, it should play a more active role in the discussions leading up to the Polar Code II because it is a party to the Antarctic treaty, has already entered the Arctic and its interaction with the Arctic is growing by the day. However, this active role by India is subject to availability of resources and priorities, currently which is clearly not to participate in the strengthening of the Arctic environmental law regime but of its own surrounding waters of the IOR. Therefore, the realistic way out is to make sure all the future Polar activities and expeditions are built upon experiences of the Arctic states rather than its own limited view of the Polar regions.

& The Vardø Vessel Traffic Service, NOR VTS Norwegian Oceanic Region Vessel Traffic Service, Norwegian Coastal Administration. https://www.kystverket.no/globalassets/om-kystverket/brosjyrer/vardovtsbrosjyre_en_hr.pdf accessed on 9 April 2021.

[114] Det Norske Veritas Report No./DNV Reg No.: 2013-1442 / 17JTM1D-26 REV 2 Report, Specially Designated Marine Areas In The Arctic High Seas. pp 56-60. https://pame.is/document-library/shipping-documents/arctic-marine-shipping-assessment-documents/recommendation-iid/343-specially-designated-marine-areas-in-the-arctic-part-ii/file accessed on 9 April 2021.

[115] Barents SRS, Norwegian Coastal Administration. https://www.kystverket.no/en/EN_Maritime-Services/Reporting-and-Information-Services/barents-ship-reporting-system/ accessed on 9 April 2021.

[116] Supra note 24 at p 60.

Section 4.6 The Svalbard treaty; international law or a classical diplomatic tug of war: The Arctic Wild west could best be seen in the case of Svalbard.[1] Different European powers struggled to dominate the area[2] but with the advent of civilization and the LOS regime, it was decided to work-out a solution acceptable to every state. Though a few different options were considered, finally it was decided that for the purpose of certainty of regulations and clear demarcation of rights and obligations of all the parties involved in the area which was terra nullius, Norway would have full and absolute sovereignty over the area subject to the 'rights of access' of other parties.[3]

The author firmly believes that International law is less about law and more about diplomacy. Whereas law is supposed to govern the relationship between a sovereign and its subject/s, the former being unable to govern itself for the greater good of the society and is hence subjugated by the latter. However, what happens when two sovereigns want to achieve greater good for society is not law but diplomacy because subjugation is not acceptable to both. The Svalbard treaty is an arrangement reached among the contracting parties wherein the rest of the parties recognize the sovereignty of Norway over Svalbard in exchange for Norwegian recognition of non-discriminatory rights for the rest of the parties.[4] It is also a classical example of an oxymoron under International Law.[5]

The treaty established an equitable regime both in terms of how the treaty treated Norway vis-a-vis the other contracting parties with respect to Svalbard[6] as well as how Norway treated the other contracting parties while administering Svalbard[7]. This will be elaborated upon under relevant sections.

4.6.1 Analysing the treaty vis-à-vis International Law:
Three interpretations of the treaty have come up so far. The Norwegian interpretation that the treaty does not apply to the new maritime zones and that Norway is competent to establish these zones under international law and the treaty does not restrict it. The second one held previously by some states stated that Norway is bound strictly by the words of the treaty and since the treaty talks only about land and territorial waters, Norway cannot establish these additional maritime zones and therefore there is no question of regulating these areas or right of access in these areas of the other parties.[8] This interpretation runs contrary to the modern developments in the LOS convention. The third and most widely accepted interpretation is that Norway is competent to establish these new maritime zones and as far as Norwegian

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[1] Torbjørn Pedersen, The Svalbard Continental Shelf Controversy: Legal Disputes and Political Rivalries, Ocean Development & International Law, 2006 37:339–358, p 341.
[2] Ibid.
[3] Supra note 1 at p 345.
[4] Generally, the Svalbard Treaty, 1920, particularly articles 1-8.
[5] The usage of terms 'Qualified yet full and absolute sovereignty' to describe the status of Norway under the treaty sounds linguistically paradoxical. See Rossi, Christopher R. "A Unique International Problem: The Svalbard Treaty, Equal Enjoyment, and Terra Nullius: Lessons of Territorial Temptation from History." Washington University Global Studies Law Review, vol. 15, no. 1, 2016, p. 110.
[6] D. H. Anderson, The Status Under International Law of the Maritime Areas Around Svalbard, Ocean Development & International Law, 40:374-375, 2009.
[7] Candidate Number: 228, 'The Non-Discrimination Requirement and Geographical Application of the Svalbard Treaty, Decisions by the Norwegian Supreme Court', University of Bergen, Master's thesis, pp 23-29. Available at: https://bora.uib.no/bora-xmlui/bitstream/handle/1956/11481/142089224.pdf?sequence=1 accessed on 10 April 2021.
[8] It has been viewed that the Svalbard treaty is Lex specialis to UNCLOS and hence deprives Norway from establishing new maritime zones around Svalbard under UNCLOS. See, Sarah Wolf, Svalbard's Maritime Zones, their Status under International Law and Current and Future Disputes Scenarios, Working Paper FG 2, 2013/Nr. 02, January 2013, SWP Berlin, pp 16-17.

regulations and rights of access of other parties in the new zones are concerned, the treaty applies to these new zones as well.[9]

The main issues for consideration regarding the Svalbard treaty are i) The meaning and extent of Norway's sovereignty under the treaty, ii) the meaning and extent of the non-discriminatory rights of the other contracting parties and iii) what is the relationship between the two? Answering these three will lead to the author's views about the three interpretations mentioned above and state which interpretation does the author agree with. Sub Issues emerging out of the issues will be examined wherever relevant.

(i)The meaning and extent of Norway's sovereignty under the treaty:

As mentioned above, because of the oxymoron it is tricky to determine the meaning and extent of Norway's sovereignty under the treaty. As seen in the case of the Arctic passages, the same stands true here. Norwegian authors take stands/reach conclusions that are less detrimental to the interests of Norway[10] while Non-Norwegians do according to their particular state interests. This is another reason to believe that International law is less about law and more about diplomacy. Even the Supreme Court of Norway has been 'diplomatic' while deciding cases involving the Svalbard treaty.[11]

The mere fact that Norwegian sovereignty over Svalbard was endowed by a treaty rather than customary law states that Norwegian sovereignty is not the same in character as any other sovereign state (in absence of the treaty the territory would continue to be terra nullius rather than a Norwegian territory). In fact, it is weaker because of the concessions mechanism adopted by both the sides that led to the making of the treaty. Hence the author would like to disagree here with Fleischer[12] and state that Norwegian sovereignty vis-a-vis Svalbard is restricted and not absolute as any other state which derives sovereignty from customary law.[13] However in agreement with Fleischer the author agrees that Norwegian sovereignty is "full and absolute" in the sense that Norway is the sovereign authority to decide on matters not stipulated under the treaty and uphold the treaty provisions throughout its decisions and regulations.[14]

(i)(a) Does Norwegian sovereignty under the treaty allow establishment of additional maritime zones: The treaty is silent about additional maritime zones except for territorial waters and does not prohibit establishment of these additional zones. Since the treaty was originally

[9] Torbjørn Pedersen, The Svalbard Continental Shelf Controversy: Legal Disputes and Political Rivalries, Ocean Development & International Law, 2006 37:339–358, pp 344-346.

[10] The Norwegian author subscribes to a position most advantageous to Norway. See, Peter Thomas Örebech, 'The Geographic Scope of The Svalbard Treaty and Norwegian Sovereignty: Historic - Or Evolutionary - Interpretation?' CYELP 13 [2017] pp 53-86.

[11] Candidate Number: 228, 'The Non-Discrimination Requirement and Geographical Application of the Svalbard Treaty, Decisions by the Norwegian Supreme Court', University of Bergen, Master's thesis, p 30. https://bora.uib.no/bora-xmlui/bitstream/handle/1956/11481/142089224.pdf?sequence=1 accessed on 11 April 2021.

[12] Carl August Fleischer, The New International Law of the Sea and Svalbard Professor, The Norwegian Academy of Science and Letters 150th Anniversary Symposium, January 25 2007, University of Oslo, pp 2-4.

[13] For example, Norway does not have the right to dispose of Svalbard under the treaty since sovereignty is granted specifically to Norway and Norway has assumed a duty under international law to exercise sovereignty over Svalbard. Norway is also restricted in ways it could use Svalbard, inter alia, not for belligerent military purposes. See Øystein Jensen, The Svalbard Treaty and Norwegian Sovereignty, Arctic Review on Law and Politics Vol. 11, 2020 82–107 p 86 & article 9 of the Svalbard treaty.

[14] Carl August Fleischer, The New International Law of the Sea and Svalbard Professor, The Norwegian Academy of Science and Letters 150th Anniversary Symposium January 25, 2007, University of Oslo, pp 4-5 & D. H. Anderson, The Status Under International Law of the Maritime Areas Around Svalbard, Ocean Development & International Law, 40:374-375, 2009 pp 374-375.

signed, Norway has benefitted from the development of the International law of the sea and owing to its sovereignty over Svalbard, successfully established the new maritime zones of a Fisheries Protection Zone (FPZ) and the Continental Shelf around it.[15] Over the due course of time Norway amended the baselines and the geographical limits of the territorial waters of Svalbard to conform to the prevailing norms at the time contemporary with the norms and the non-discriminatory rights of the other contracting parties were also extended to these amendments.[16] Hence we see that the concept of 'territorial waters' is evolutionary[17] and so are the 'rights of access' provided to other contracting parties therein.[18]

Under the LOS convention article 121, all islands capable of sustaining human habitation generate maritime zones including an EEZ and Continental Shelf. Had Norway not been able to establish these new maritime zones around Svalbard, such a position would be inconsistent with LOS convention.

Though Norway initially claimed that Svalbard generated only an EEZ and not a continental shelf and that the entire continental shelf between Svalbard and Norway is an extension of the Continental Shelf of the Norwegian mainland, over subsequent years Norway has possibly abandoned that position and agrees that Svalbard generates both an EEZ as well as a Continental Shelf.[19] The state practice of various parties to the treaty has also shown so far that they agree that Svalbard generates these additional maritime zones (under UNCLOS) and Norway has rightfully established these zones.[20] The successful delimitation of Norwegian Continental Shelf by CLCS also shows Norway is well within its sovereign powers in establishing Continental Shelf around Svalbard.[21]

(i)(b) Can Norway regulate these new maritime zones under the treaty: If it has been established that the treaty allows for Norway to establish these new zones, consequently under the treaty Norway has also been granted the authority to regulate these zones and hence can make laws and regulations for the new zones as well. Iceland, Russia and Spain have indicated that the contracting parties should be involved in deciding on legislation and that they would be competent as flag states to enforce the regulations. However, such an application of the principle of equal treatment will conflict with Article 61 of UNCLOS.[22] It would defeat the purpose of the treaty if more than one state decided on regulations governing the area since the treaty was made to solve the problem of anarchy that existed then and hence

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[15] Sarah Wolf, 'Svalbard's Maritime Zones, their Status under International Law and Current and Future Disputes Scenarios', Working Paper FG 2, 2013/Nr.02 January 2013, SWP Berlin, p 17.

[16] D. H. Anderson, The Status Under International Law of the Maritime Areas Around Svalbard, Ocean Development & International Law, 40:374-375 pp, 2009. p 376.

[17] Peter Thomas Örebech, The Geographic Scope of The Svalbard Treaty and Norwegian Sovereignty: Historic - Or Evolutionary - Interpretation? CYELP 13 [2017] 53-86, p 59.

[18] D. H. Anderson, The Status Under International Law of the Maritime Areas Around Svalbard, Ocean Development & International Law, 40:374-375 pp, 2009 p 376.

[19] Norway has used the Svalbard Continental Shelf rather than the mainland Continental Shelf to delimit maritime boundaries with neighbouring states. See,Churchill, Robin and Ulfstein, Geir, The Disputed Maritime Zones around Svalbard (October 3, 2011). CHANGES IN THE ARTIC ENVIRONMENT AND THE LAW OF THE SEA, Panel IX, Martinus Nijhoff Publishers, 2010 & Candidate Number: 228, 'The Non-Discrimination Requirement and Geographical Application of the Svalbard Treaty, Decisions by the Norwegian Supreme Court', University of Bergen, Master's thesis, p 13.

[20] Successful maritime delimitations between, for example, Norway-Russia and Svalbard/Norway-Greenland/Denmark. See, Robin Churchill and Geir Ulfstein, 'The Disputed Maritime Zones Around Svalbard', p 559-562. Available at: http://ulfstein.net/wp-content/uploads/2012/08/ChurchillUlfstein20101.pdf accessed on 12 April 2021.

[21] Pedersen, Torbjorn, and Tore Henriksen. "Svalbard's Maritime Zones: The End of Legal Uncertainty." International Journal of Marine and Coastal Law, vol. 24, no. 1, 2009, p. 141-162 & Sarah Wolf, 'Svalbard's Maritime Zones, their Status under International Law and Current and Future Disputes Scenarios', Working Paper FG 2, 2013/Nr.02 January 2013, SWP Berlin, p 20-21.

[22] T Pedersen and T Henriksen, 'Svalbard's Maritime Zones: The End of Legal Uncertainty' The International Journal of Marine and Coastal Law 24 (2009) 141-161 p 160.

needed one definitive regulatory regime. Articles 2 and 3 clearly state the same. Furthermore, all the parties to the treaty have accepted Norwegian regulations over the years which shows Norway has rightfully exercised regulatory control over these zones. Furthermore, applying the rules of interpretation under VCLT to the Svalbard treaty, the treaty has to be interpreted in the light of the development of the LOS convention which has enabled coastal states to declare and regulate these additional maritime zones.

(ii) the meaning and extent of the non-discriminatory rights of the other contracting parties: The treaty guarantees equally to all the nationals of the contracting parties the right to carry out maritime, industrial, mining and commercial operations (including fishing and hunting) on the land and the territorial waters of Svalbard subject to local laws and regulations, hereinafter referred to as non-discriminatory rights.[23] The treaty is silent on maritime zones beyond the territorial seas (erstwhile territorial waters as written in the treaty) because the concept of the new maritime zones i.e. the EEZ and the continental shelf did not exist when the treaty was signed. However, with the development of the LOS convention, Svalbard also generated EEZ and the continental shelf. Now the question is whether the non-discriminatory rights also apply to these new maritime zones of EEZ (Fisheries Protection Zone, FPZ) and the Continental Shelf. Hence the major task here is to interpret "territorial waters" as mentioned in the treaty and whether 'territorial waters' include the additional maritime zones.

(ii)(a) Do these rights of access apply to the newly formed maritime zones: Norway and some of its authors claim that the treaty is vague about restricting rights of Norway and hence a restrictive interpretation of the treaty should be done.[24] While interpreting a treaty restrictively, the principle of 'In dubio mitius' would apply which would mean that Norway's sovereignty over Svalbard will prevail over 'rights of access' of the other contracting parties.[25] Furthermore, the treaty is also very clear about limiting the rights of the other parties to 'territorial waters' and hence Norway has exclusive jurisdiction over the EEZ and the Continental Shelf of Svalbard.

It has to be noted that the 'object, intention of the parties and purpose of a treaty' take primacy over 'rules of interpretation' while deciding upon a question vis-a-vis the treaty. In other words, while deciding a particular issue with respect to a treaty, added weight is assigned to the ascertainment of 'object, intention of the parties and purpose of a treaty' rather than deciding whether to interpret the treaty restrictively or liberally. Hence if the 'object, intention of the parties and purpose of a treaty' are determined, it is irrelevant/inconsequential/secondary whether the treaty is interpreted liberally or restrictively.[26]

This view has been held by various International courts and tribunals and finds its source in the Rules of Interpretation under VCLT. Even though Norway is not a party to VCLT, VCLT forms a part of customary international law and hence Norway is bound by it.[27] Furthermore, a dynamic approach to treaty interpretation has been favoured by courts when such an interpretation can better synchronize the original intent of the parties with the developments in International Law.[28]

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[23] A combined reading of article 1, 2 and 3. See also, D. H. Anderson, The Status Under International Law of the Maritime Areas Around Svalbard, Ocean Development & International Law, 40:374-375, p 376 2009.
[24] Molenaar, E. J. "Fisheries Regulation in the Maritime Zones of Svalbard." International Journal of Marine and Coastal Law, vol. 27, no. 1, 2012 3-58, pp 13-15.
[25] Robin Churchill and Geir Ulfstein, 'The Disputed Maritime Zones Around Svalbard', pp 565-567. Available at: http://ulfstein.net/wp-content/uploads/2012/08/ChurchillUlfstein20101.pdf accessed on 13 April 2021.
[26] In the Arbitration Regarding the Iron Rhine ("IJzeren Rijn") Railway, (Belgium and the Netherlands), 24 May 2005, para. 53. Available at: https://pcacases.com/web/sendAttach/478 accessed on 14 April 2021.
[27] Robin Churchill and Geir Ulfstein, 'The Disputed Maritime Zones Around Svalbard, pp 565-567. http://ulfstein.net/wp-content/uploads/2012/08/ChurchillUlfstein20101.pdf accessed on 14 April 2021.
[28] Dispute regarding Navigational and Related Rights (Costa Rica v. Nicaragua), Judgment, ICJ Rep 2009, p. 213, para. 64.

The object and purpose and the intention of the parties to the Svalbard treaty has to be determined. At the time of conclusion of the treaty, 'territorial waters' was the only recognized international maritime zones and other zones were established later on and the waters beyond the territorial waters were considered high seas. Hence it can be said that the intention of the parties was to make the treaty applicable to all the maritime zones that existed at that time and there was no reason to stipulate anything about the high seas of the time because all states had rights therein. Hence territorial "waters" refers to all maritime zones between the high seas and the coast wherein the coastal state has any sort of jurisdiction.

Reading into the preamble also awakens the reader to the scope of the treaty which reads 'equitable regime' which means terra nullius rights for other parties and sovereignty for Norway. This also aligns with the 'context' in which the treaty was signed i.e. states were desirous of giving legal certainty to a previously terra nullius land while at the same time preserving their rights thereto. Hence under this equitable regime the sovereignty of Norway is coextensive with the terra nullius rights of the other parties.[29]

Had these rights not been applicable to these new maritime zones, it would lead to a situation against reason and basic principle of the LOS that a coastal state's rights weaken as one goes seawards from the coast. As far as 'subsequent practice' in the application of the treaty is concerned under article 31 (3) of the VCLT, the fact that Norway did not establish an EEZ but an FPZ and that "Norway does not have exclusive fishing rights in this FPZ but administers the distribution of fishing quotas to other countries" can be a reference to the classical maxim 'res ipsa loquitur' and show that in fact these rights apply to these new zones.[30]

(ii)(b) The prohibition on discrimination on the basis of nationality and the scope for application of differential treatment: A reading of the provisions of the treaty leads to the conclusion that prohibition on discrimination at its core is on the basis of nationality.[31] A reading of the preamble may further help in establishing the scope and purpose of the treaty for the purpose of this section. The treaty establishes the regime to be "equitable" in terms of treatment by Norway of the other contracting parties. In other words, the treaty prohibits differential treatment on the basis of nationality. However, differential treatment based on other criteria might still be discriminatory under the treaty. It is important to note here that sometimes differential treatment will be considered non-discriminatory insofar as there is no discrimination in substance.

A careful reading of article 2 (2) prohibits discrimination in 'pith and substance' and not only as an incidental effect of provisions concerning Svalbard. This prohibition shall extend to rendering not just formal equality but also rendering non-discriminatory actual effects of the measures taken. Sometimes to render non-discriminatory actual effects, differential treatment will be necessary and hence would not be discriminatory under the treaty. Hence the preamble and the text of the treaty allow for differential treatment to render non-discriminatory actual effects where it is clear that non-differential treatment will lead to discriminatory actual

[29] Candidate Number: 228, 'The Non-Discrimination Requirement and Geographical Application of the Svalbard Treaty, Decisions by the Norwegian Supreme Court', University of Bergen, Master's thesis, pp 16-17.
[30] Ragnhild Groenning, 'The Norwegian Svalbard Policy – Respected or Contested?' November 22, 2017, the Arctic institute. Available at: https://www.thearcticinstitute.org/norwegian-svalbard-policy-respected-contested/#:~:text=Fisheries%20protection%20zone%20%E2%80%93%20respected%20and%20contested&text=Instead%2C%20in%201977%2C%20Norway%20established,and%20to%20regulate%20fishing%20sustainably accessed on 15 April 2021.
[31] For example, articles 2 & 3. See also, candidate number 228, The Non-Discrimination Requirement and Geographical Application of the Svalbard Treaty, Decisions by the Norwegian Supreme Court', University of Bergen, Master's thesis, pp 23-24.

effects.[32] Furthermore, Article 62 (3) of the UNCLOS also mandates paying due consideration to historical fishing habits of the states in EEZs.

Now we shall see if differential treatment can be applied to achieve an objective goal without being necessarily discriminatory. The provisions of the treaty, again, stipulate the prohibition of discriminatory provisions while making rules for preserving nature but do not give guidelines about differential treatment. For this purpose, we shall again look into the context and the object and purpose of the treaty. Even though Norway's regulatory powers and the rights of access of other states have been given equal priority, it can be inferred that unconditionally established claims of violations of the terra nullius rights would hinder effective regulation of the area and hence a regime proposing achievement of certain objective goals would be desirable. However, the contrary remains to be true that in pretext of achievement of an objective goal, certain discriminatory regime/provisions might be introduced and hence this process is abused in violation of the rights of access of the other parties. As Ulfstein and the Norwegian Supreme Court have pointed out, the test of proportionality would be a sound benchmark to evaluate these provisions.[33]

Therefore, the regulatory regime of Svalbard is well within the prescribed limits of Norwegian sovereignty and does not encroach upon the terra nullius rights of the other contracting parties. In the interest of certainty and dispute free Svalbard, it is important to harmonize the treaty with LOS convention. This harmonization dictates that the third interpretation be upheld i.e., the treaty allows for establishment and regulation of the new maritime zones around Svalbard and the rights of access of other parties are also applicable to these new zones.

(iii) the relationship between the two; a package deal: The author would like to draw an analogy to the sport of tug of war and argue that the two are counterparts/co-equals forming two equal parts of the same rope being pulled with equal tension by the sovereignty of Norway on one side and the non-discriminatory rights of the other parties on the other.[34] Equal and opposite tension on the treaty that keep the treaty alive and stretched out straight and not let it fall to the ground and hence apart. However, we see that as a part of International diplomacy, both the sides pull the rope on their side sometimes as and when according to their convenience and strategies. In some cases, to maintain that balance is simply impossible. So far, the parties have not taken their game in front of a referee and assume themselves mature enough to keep the balance because the ultimate aim of a side is not to win but to work towards greater good of the society.

4.6.2 Projecting into the future and India's role:

As said above, the balance between the two is simply impossible in some cases. One such case is the delimitation of the Continental Shelf and the water column between mainland Norway and Svalbard. The question remains whether Norwegian sovereignty over Svalbard be used for the advantage of Norway or the advantage of the other contracting parties.[35] As far as the water column is concerned, the FPZ seems to be a decent solution acceptable to

[32] Ulfstein, Geir, *The Svalbard Treaty: From Terra Nullius to Norwegian Sovereignty* (Oslo 1995), pp. 246-252.
[33] Candidate Number: 228, 'The Non-Discrimination Requirement and Geographical Application of the Svalbard Treaty, Decisions by the Norwegian Supreme Court', University of Bergen, Master's thesis, pp 33-36.
[34] The treaty provisions provide for a fair and balanced compromise for both the sovereign and other parties. See, D. H. Anderson, The Status Under International Law of the Maritime Areas Around Svalbard, Ocean Development & International Law, 40:374-375 pp, 2009.
[35] Jensen, supra note 13 at p 265.

all but the Continental Shelf has already generated undesirable incidents[36] and holds potential for greater conflict.

The issue of snow crabs between the EU and Norway is just the tip of the iceberg. Norway and its adversaries to the treaty are already starting to buttress their claims for the future domination of Svalbard Continental Shelf.[37] The real dispute is regarding the rights over continental shelf and hence not only its sedentary living resources but more importantly oil and gas under the seabed.[38] For now Norwegian sovereignty over the Continental Shelf of Svalbard seems to be holding strong.[39]

The treaty prohibits Norway imposing any tax in surplus of that needed for administration and regulation of the area.[40] Owning to historic fishing habits in the FPZ of Svalbard, Norway applied differential treatment to prevent discrimination under the treaty but such historic rights do not exist in case of Continental Shelf exploration and hence it would be burdensome for Norway to lay exclusive claims over the Svalbard continental shelf and exploit its resources.[41] Unless indispensable, Norway would prefer not to open the pandora's box over the questions of Svalbard's Continental Shelf and hence keep a halt on oil and gas exploratory activities therein.

India has been a founding contracting party and hence has its permanent research station in Svalbard. However as far as resources go, Indian ratification of the treaty has been of nominal value. India has also been silent on issues of international law concerning the area primarily because Norway is a good ally and at present, India doesn't have much to gain from getting involved in the controversy/taking a particular stand over it.

Section 4.7 The rights of the Indigenous people and IUU fishing; contextualizing the Arctic and Indian coasts:

Indigenous people have been vulnerable to labour exploitation and hence ILO was the first organization to take actions to safeguard their rights. The first step towards this was the adoption of convention 107 in the 1950s called the Convention on Protection and Integration of Indigenous and Other Tribal and Semi-Tribal Populations in Independent Countries. This convention was interpreted as assimilationist and paternalistic by the states and a temporary measure when these goals of integration were achieved. Over the course of the next few decades the shortcomings of this convention were realized, and it was emphasized that the Indigenous people were not to be integrated and made like everyone else, rather their distinctive identities were to be protected and let flourish. Convention 169 of the ILO, concerning Indigenous and Tribal Peoples in Independent Countries was then adopted to preserve and recognize their identity, rights to the resources and subsistence activities

[36] For example, protests from other treaty parties when Norway made unilateral moves on the Svalbard Continental Shelf. See, Torbjørn Pedersen, The Svalbard Continental Shelf Controversy: Legal Disputes and Political Rivalries, Ocean Development & International Law, 2006 37:339–358 p 347.

[37] Kait Bolongaro, "Oil Lurks beneath EU-Norway Snow Crab Clash," Politico, June 18, 2017. Availalbe at: www.politico.eu/article/of-crustaceans-and-oil-the-case-of-the-snow-crab-on-svalbard accessed on 15 April 2021.

[38] Andreas Østhagen and Andreas Raspotnik, 'Why Is the European Union Challenging Norway Over Snow Crab? Svalbard, Special Interests, and Arctic Governance' Ocean Development & International Law 2019, Vol. 50, Nos. 2–3, 190–208 p 196.

[39] Alister Doyle, Gwladys Fouche, 'Abide by the claw: Norway's Arctic snow crab ruling boosts claim to oil' February 14, 2019, Reuters. Available at: https://www.reuters.com/article/us-norway-eu-snowcrab/abide-by-the-claw-norways-arctic-snow-crab-ruling-boosts-claim-to-oil-idUSKCN1Q3115 accessed on 16 April 2021.

[40] Article 8.

[41] Torbjørn Pedersen, The Svalbard Continental Shelf Controversy: Legal Disputes and Political Rivalries, Ocean Development & International Law, 2006 37:339–358 p 347.

thereon[42]. Norway is the only Arctic country which has ratified the convention, neither has India ratified the convention.[43]

Article 118 of the UNCLOS mandates regional cooperation among states and setting up of regional fisheries organizations in order to conserve and manage living resources in the high seas. UNCLOS also grants coastal states with extensive regulatory powers to ensure sustainable exploitation of living resources in their EEZs. In 1995, the UN Agreement on Straddling and Highly Migratory Fish Stocks was adopted to implement the provisions of the UNCLOS agreement. Pursuant to this, there have been set up a few different regional fisheries management organizations in the Arctic such as the North-East Atlantic Fisheries Commission (NEAFC) and the North Pacific Fisheries Commission (NPFC). "There is no other high seas area where we've decided to do science first".[44] This statement comes in the backdrop of adoption of the agreement banning unregulated commercial fishing in the Central Arctic Ocean hence putting the precautionary approach first. Indigenous people and their knowledge have been made a significant part of the agreement and shall be utilized while implementing this agreement.[45]

Both the Arctic and India, consist of significant fishing communities that have carried out artisanal fishing from time immemorial. The regime of combating illegal, unregulated, and unauthorized (IUU) fishing[46], though benevolent for sustainable fisheries development, could adversely impact these artisanal fisheries. It has been argued that the concept of IUU fishing is disputed and applicability of IUU fishing on vulnerable groups like the Arctic indigenous people curtails, inter alia, their food security rights.[47] In furtherance to this vulnerability of the artisanal fisheries, India at the WTO has proposed to exclude these fisheries from the ban on harmful fisheries subsidies.[48] Given the vulnerability of the Arctic indigenous communities, it should be ensured that their subsidies are not affected by this fisheries subsidy ban being negotiated at the WTO.

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[42] Part II of ILO 169.
[43] Athanasios Yupsanis, 'ILO Convention No. 169 Concerning Indigenous and Tribal Peoples in Independent Countries 1989–2009: An Overview', Nordic Journal of International Law 79 (2010) pp 433–438.
[44] Scott Highleyman as quoted by Hannah Hoag, 'Nations agree to ban fishing in Arctic Ocean for at least 16 years', Dec. 1, 2017, Sciencemag. Available at: https://www.sciencemag.org/news/2017/12/nations-agree-ban-fishing-arctic-ocean-least-16-years accessed on 16 April 2021.
[45] Agreement to prevent unregulated high seas fisheries in the Central Arctic Ocean.
[46] It is believed to be one of the biggest hurdles that undermine sustainable maintenance of fisheries around the world. See, FAO, what is IUU fishing?, United Nations. Available at: http://www.fao.org/iuu-fishing/background/what-is-iuu-fishing/en/ accessed on 18 April 2021.
[47] Malgosia Fitzmaurice & Mercedes Rosello, 'IUU Fishing as a Disputed Concept and Its Application to Vulnerable Groups: A Case Study on Arctic Fisheries' International Community Law Review 22 (2020) 410–427.
[48] Amiti Sen, WTO and fisheries subsidies: India's proposal for exempting poor countries gains traction, The Hindu Businessline, September 18 2020, available at: https://www.thehindubusinessline.com/economy/agri-business/wto-and-fisheries-subsidies-indias-proposal-for-exempting-poor-countries-gains-traction/article32640337.ece accessed on 19 April 2021.

Chapter 5 India's bilateral relations with the Arctic states in the Arctic context:

India has deep and historic bilateral ties with almost all the arctic countries. Ranging from business to academia to entertainment, India's bilateral relations with the arctic countries have been constructive and are strengthening over time. While it took China 7 years to get the observer status to the AC[1], India decided to apply for this status at the last moment in 2013 and got it immediately.[2] It shows the positive relations and trust India enjoys with the Arctic states.

India's look far east policy and strengthening bilateral ties with Russia in the context of Arctic: India's relations with the Arctic countries are seen at its best in the case of Indian-Russia historical partnership which continues to evolve and strengthen over time. The strength of the Indo-Russian partnership can be weighed from the statement by the Russian foreign minister that Russia is the "only partner that indeed transfers to India, cutting edge military technologies".[3] Changing global geopolitical dynamics and global warming have given an interesting turn to these relations. Traditionally a defence-based partnership, Indo-Russian relations are now reaching far beyond to include, inter alia, scientific research and energy supplies. In the context of Russian Arctic, the northeast passage, as of yet, is not as attractive for India as it is for the other Asian AC observers primarily due to geographical reasons.[4] However, India is looking towards developing its usage for two major reasons. Firstly, to be able to ship oil and gas from eastern Russian Arctic to diversify its supply chains given the uncertainties in the middle east and North Africa.[5] Secondly, to strengthen its presence in the South China sea which is dominated by China.[6] India is also in the process of signing a crucial military Agreement on Reciprocal Logistics Support (ARLS) with Russia to get access to Russian Arctic ports.[7] Russia is also interested in developing its Arctic energy collaborations with India lest it shall rely heavily on Chinese demand alone which gives China an upper hand in negotiations with Russia.[8] This win-win situation for both Russia and India has been gaining ground over the last decade as manifested in agreements between energy companies[9] and

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[1] Qin, Tianbao. "Dispute over the Applicable Scope of the Svalbard Treaty: A Chinese Lawyer's Perspective." Journal of East Asia and International Law, vol. 8, no. 1, Spring 2015, p 159.

[2] Joachim Weber Ed., *Handbook on Geopolitics and Security in the Arctic* Springer Nature Switzerland AG 2020, p 151.

[3] Transcript of Joint Presser by External Affairs Minister and Minister of Foreign Affairs of the Russian Federation (April 06, 2021), April 07 2021, Ministry of External affairs India. Available at: https://mea.gov.in/bilateral-documents.htm?dtl/33774/Transcript_of_Joint_Presser_by_External_Affairs_Minister_and_Minister_of_Foreign_Affairs_of_the_Russian_Federation_April_06_2021 accessed on 22 April 2021.

[4] Nivedita Kapoor and Gayathri Iyer, "East Meets East: An Assessment of the Proposed Chennai-Vladivostok Maritime Corridor," *ORF Occasional Paper No. 286*, December 2020, Observer Research Foundation & Lassi Heininen, Alexander Sergunin and Gleb Yarovoy, Russian Strategies in the Arctic: Avoiding a New Cold War, Valdai Discussion Club, Russia. Available at: https://www.uarctic.org/media/857300/arctic_eng.pdf accessed on 19 April 2021.

[5] Bhagwat J., 'Russia and India in the Arctic: A case for greater synergy' Arktika i Sever [Arctic and North], 2020, no. 38, pp. 63-64.

[6] Mahika Sri Krishna, The Vladivostok-Chennai Maritime Corridor: The Implications for China, 22 November 2019, Institute for Security & Development Policy. Available at: https://isdp.eu/vladivostok-chennai-maritime-corridor/ accessed on 19 April 2021.

[7] Manu Pubby and Dipanjan Roy Chaudhury, 'India, Russia defence logistics sharing pact likely to be signed by year-end', The Economic Times, July 22 2020. Available at: https://economictimes.indiatimes.com/news/defence/india-russia-def-logistics-sharing-pact-by-year-end/articleshow/77094253.cms?from=mdr accessed on 19 April 2021.

[8] Stanislaw Skarzynski and Daniel Wong, 'Is Putin's Russia Seeking a New Balance Between China and the West?' The Diplomat, August 28 2020. Available at: https://thediplomat.com/2020/08/is-putins-russia-seeking-a-new-balance-between-china-and-the-west/ accessed on 19 April 2021 & supra note 4.

[9] Press release, Rosneft Signs Contract with Indian Oil to Supply 2 Million Tonnes of Oil to India, Rosneft Information Division, 05 February 2020. Available at: https://www.rosneft.com/press/releases/item/199701/ accessed on 19 April 2021.

bilateral declarations of both the countries[10]. The significance of the Chennai-Vladivostok maritime corridor is being increasingly felt by India and is being supported by Russia and Japan who want to keep Chinese influence in check. Even though the Chennai-Vladivostok maritime corridor is beyond the scope of the NSR, Russia's proposed Vostok Oil project, in the northern Russian Krasnoyarsk Territories, will utilize the NSR to transport oil eastwards and India has already principally agreed to be a part of the project.[11] Hence India is materializing its 'look far east' policy bit by bit by strengthening its position all along the proposed Chennai-Vladivostok maritime corridor.[12]

The multi-mode equivalent (through sea, rail and road) of the eastern maritime corridor on the western side is the International North South Transport Corridor (INSTC) joining Russia and India. It passes through "the Indian Ocean and Persian Gulf to the Caspian Sea via Iran and is then connected to St. Petersburg and North Europe via Russia. The grouping was formally expanded to include ten other countries, being Azerbaijan and Armenia in the Caucasus, then north and west to Turkey, Belarus, Syria and Bulgaria, Oman in the middle east, as well as north and east to Kazakhstan, Kyrgyzstan, and Tajikistan. Studies have shown cost savings of 30% with a 40% less delivery time by using the INSTC route to Russia rather than the standard routing through sea from Mumbai to St Petersburg".[13]

The importance of this transport corridor is underscored by the fact that "a Free Trade Agreement (FTA) between India and the Eurasian Economic Union (EAEU) appears to be on the cards this year, according to statements made by several Kremlin sources. Such a deal would be a major boost for India and Russia – the EAEU includes Armenia, Belarus, Kazakhstan, Kyrgyzstan, and Russia".[14]Therefore to conclude, we see India and Russia have come together and are signing deals literally left and right to exploit the resources in the Russian Arctic.

India is keen on partnering with Russia on the Arctic Migratory Birds Initiative (AMBI) programme of the Conservation of Arctic Flora and Fauna (CAFF) working group of the Arctic Council.[15] Other fields of scientific research collaboration have also been identified but nothing

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[10] There have been regular diplomatic exchanges and declarations. For example, see, India - Russia Joint Statement during visit of Prime Minister to Vladivostok, September 05 2019, India-Russia Joint Statement during visit of President of Russia to India, October 05, 2018, joint Declaration between the Republic of India and the Russian Federation on Deepening the Strategic Partnership to meet Global Challenges December 2009.

[11] Ibid.

[12] Joint oil exploration in south China sea in Vietnamese waters by Indian and Russian companies. See supra note 4. India is also strengthening maritime ties with the ASEAN countries, Japan and South Korea. India has already signed Acquisition and Cross Servicing Agreements (ACSAs) with Japan, South Korea and Singapore while the one with Vietnam is under negotiations. See, Abhijnan Rej, India and Japan Sign Military Logistics Agreement for All to See, The Diplomat. Available at: https://thediplomat.com/2020/09/india-and-japan-sign-military-logistics-agreement-for-all-to-see/ accessed on 19 April 2021.
India, South Korea seal logistics pact, The Hindu, September 6 2019, available at: https://www.thehindu.com/news/national/india-south-korea-seal-logistics-pact/article29354781.ece accessed on 19 April 2021.

[13] Russia Briefing, Russia Connecting with India Via International North-South Transport Corridor, May 22 2017, Dezan Shira & Associates. Available at: https://www.russia-briefing.com/news/russia-connecting-india-via-international-north-south-transport-corridor.html/ accessed on 19 April 2021.

[14] India Briefing, India-EAEU FTA Appears in Sight, Moscow Signals Support, January 8 2021, Dezan Shira & Associates. Available at: https://www.india-briefing.com/news/india-eaeu-fta-appears-in-sight-positive-signal-russia-21475.html/ accessed on 19 April 2021 & Eurasian Economic Commission, EAEU and India began formal negotiations on a free trade agreement, March 6 2017. Available at: http://www.eurasiancommission.org/en/nae/news/Pages/3-06-2017.aspx accessed on 19 April 2021.

[15] India is an observer to the Arctic migratory birds initiative (AMBI) programme of the Conservation of Arctic Flora and Fauna (CAFF) working group of the Arctic Council. See, Gopal B Kateshiya, India and Russia propose to collaborate for conservation of migratory arctic birds, February 20 2020, the Indian express. Available at: https://indianexpress.com/article/india/india-and-russia-propose-to-collaborate-for-conservation-of-migratory-arctic-birds-6276554/ accessed on 19 April 2021.

significant has been done on it this far.[16] Furthermore, India is focused on Arctic scientific research collaboration mainly with its already time-tested partnering nation which shall be dealt with in the next section.

India and Norway bilateral relations in the Arctic context; focusing on scientific research: The principal partner in India's scientific endeavour in the Arctic is Norway. In fact, a former Norwegian foreign minister has said that "Science is the backbone of Indo-Norwegian cooperation in the Arctic" and that "India would be an ideal partner in international efforts on integrated ocean management and environmental protection".[17] The first Norwegian project in India was in 1952 involved with fisheries in the state of kerala. Since then both the countries have had more than 100 research projects together.[18] India used a vessel chartered from a Norwegian firm to make its first voyage to the Norwegian claimed Antarctic land. Since then, the relations have been flourishing into research and logistical collaborations. Both the countries decided to extend these relations to the Arctic as well[19] and in 2007, India launched its first scientific expedition to the Arctic from the international research facility at Ny-Alesund, Spitsbergen, Norway. A permanent Indian research centre called Himadri was established at Ny-Ålesund Island in 2008.[20]

In 2014, an MoU on cooperation in the field of Earth System Sciences was signed between the Ministry of Earth Sciences India and the Norwegian Research Council.[21] These research collaborations are carried out by institutions, inter alia, the Indian National Centre for Polar and Ocean Research (NCPOR), the Norwegian Polar Institute (NPI), the Nansen Environmental Research Centres (India and Norway) and the University Centre in Svalbard (UNIS). The Indian NCPOR is also a member of the Svalbard Integrated Arctic Earth Observatory System (SIOS) and the Ny-Ålesund Science Managers Committee (NySMAC).[22]

India and Canada bilateral relations in the Arctic context: India-Canada relations in the context of Arctic are at a very nascent stage. Besides the interesting over the north pole flight connections, The Indian NCPOR and the Canadian High Arctic Research Station (CHARS) signed an MoU regarding collaboration on research in polar areas.[23]

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[16] Yuri Sychev, as quoted in, 'Russia, India plan to cooperate in Arctic research', 29 MAY 2018, TASS Russian news agency. Available at: https://tass.com/economy/1007085 accessed on 19 April 2021.

[17] Børge Brende, 'From the Third pole to the North Pole', the Hindu, OCTOBER 15 2014. Available at: https://www.thehindu.com/opinion/columns/from-the-third-pole-to-the-north-pole/article6500998.ece accessed on 19 April 2021.

[18] Nils Ragnar Kamsvåg interviewed by Omair Ahmad, India-Norway cooperation from the Arctic to the monsoon, December 4, 2018, the Third Pole. Available at: https://www.thethirdpole.net/en/climate/india-norway-cooperation/ accessed on 19 April 2021.

[19] See, the High North, Norwegian Embassy in Delhi, Government of Norway. Available at: https://www.norway.no/en/india/values-priorities/high-north/ accessed on 19 April 2021.

[20] Arctic Expedition, 8/14/2018, ministry of earth sciences India. https://www.moes.gov.in/programmes/arctic-expedition accessed on 19 April 2021.

[21] Memorandum of Understanding between India and Norway, Ministry of Earth Sciences, Government of India, 14 October 2014. Available at: https://moes.gov.in/writereaddata/files/MoU%20%20-%20%2015%20-%20RCN%2C%20Norway%20-%202014.pdf accessed on 19 April 2021.

[22] The Svalbard Integrated Arctic Earth Observatory System, 'New SIOS member!' June 14, 2019. Available at: https://sios-svalbard.org/News_20190614 accessed on 19 April 2021. & Ny-Ålesund Science Managers Committee, National Centre for Polar and Ocean Research (NCPOR), India. Available at: https://nyalesundresearch.no/members/national-centre-for-polar-and-ocean-research-ncpor-india/ accessed on 19 April 2021.

[23] Nida Sayed, Vasco's polar research centre inks MoU with Canadian facility for summer collaboration, The Times of India, February 27 2020. Available at: https://timesofindia.indiatimes.com/city/goa/vascos-polar-research-centre-inks-mou-with-canadian-facility-for-summer-collaboration/articleshow/74325837.cms accessed on 19 April 2021.

India and Sweden bilateral relations in the Arctic context: In 2015, a Letter of Intent (LoI) was signed between the Ministry of Earth Sciences (MoES), India and the Ministry of Education and Research, Sweden on cooperation in Polar and Ocean Science research.[24] This LoI was later given the shape of an MoU in 2019.[25] Recently the prime ministers of both the countries highlighted the progress made under the MoU by the Indian NCPOR and the Swedish Polar Research Secretariat and emphasized the need for a stronger collaboration under the framework of the AC.[26]

India and Finland bilateral relations in the Arctic context: India's bilateral relations with Finland in the Arctic context have been rather weak. The most the two countries have done to work together on Polar issues is a joint statement by the prime ministers of both the countries highlighting the potential of polar research collaboration.[27]

India and Denmark bilateral relations in the Arctic context: Analogous to Finland, India's relations with Denmark in context of the Arctic are limited to joint Prime Ministers' declarations on Arctic cooperation within the framework of AC.[28] The Innovation Centre of Denmark underscores the need for Denmark and India to enter into agreements/MoUs over scientific research collaboration on the verge of India-Sweden and India-Norway agreements.[29]

India and Iceland bilateral relations in the Arctic context: India has no meaningful engagement with Iceland in the context of Arctic. The closest both countries get is a joint statement by the ministers of 25 countries during the first-ever Arctic Science Ministerial including India and Iceland to assert the importance of collaboration in scientific research in the Arctic.[30]

India and the US bilateral relations in the Arctic context: The USA is India's main international partner in polar research.[31] This statement is likely true in the context of Antarctica but given India's brief presence in the Arctic thus far and collaborations with Norway, its validity is doubtful in the case of the Arctic. However, India and the US have deep and strategic bilateral relations which are growing stronger by the day. India and the US have a number of MoUs on scientific research collaboration and a few significant ones are mentioned here. In 2008, the Indian Ministry of Earth Sciences (MoES) and the American National Oceanic and Atmospheric Association (NOAA) entered into an umbrella MoU for

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[24] Letter of Intent between India and Sweden, Ministry of Earth Sciences, Government of India, June 1 2015. Available at: https://moes.gov.in/writereaddata/files/23-LoI-MoES_and_SPRS-Sweden-JUNE-2015.PDF accessed on 19 April 2021.

[25] PIB Delhi, Cabinet approves Memorandum of Understanding between India and Sweden on cooperation in Polar Science, Government of India, 8 JAN 2020. Available at: https://pib.gov.in/PressReleasePage.aspx?PRID=1598722 accessed on 19 April 2021.

[26] Joint Statement, India-Sweden Virtual Summit March 2021, Government of Sweden. Available at: https://www.government.se/493b85/contentassets/bec33fe3add443f783c977b70028e412/joint-statement-on-sweden-india-virtual-summit.pdf accessed on 19 April 2021.

[27] Joint Statement on India - Finland Virtual Summit, Ministry of External Affairs India, March 16, 2021. Available at: https://www.mea.gov.in/bilateral-documents.htm?dtl/33630/Joint_Statement_on_India__Finland_Virtual_Summit accessed on 19 April 2021.

[28] PIB Delhi, Joint Statement for India-Denmark Green Strategic Partnership, Prime Minister's Office, Government of India, 28 SEP 2020. Available at: https://pib.gov.in/PressReleasePage.aspx?PRID=1659822 accessed on 19 April 2021.

[29] Danish Agency for Science and Higher Education, International Opportunities for Danish Arctic Researchers, ICDK Outlook No. 6, June 2018, p 46.

[30] The White House, Joint Statement of Ministers, September 28 2016, Washington, DC, USA. available at: https://obamawhitehouse.archives.gov/the-press-office/2016/09/28/joint-statement-ministers accessed on 19 April 2021.

[31] Supra note 29 at p 40.

cooperation in earth observation and earth sciences.[32] Another similar MoU was done between the MoES India and the University Corporation for Atmospheric Research (UCAR) in 2014 to collaborate in the field of earth system sciences. The space agencies of both the countries have a wide range of collaboration agreements regarding space technologies.[33] On the defence front, India and the US have signed the three foundational agreements which pave the way for closer and intertwined military operations.[34] This decision by India has been seen by some as moving away from Russia. Owing to the necessity of both India and the US to counterbalance growing Chinese global influence, they have joined hands, whereas on the other hand, this has not affected the India and Russia military ties and they continue to be the same good old allies. Even though none of the aforementioned agreements explicitly mentions the Arctic, given the widening scope of the relations between India and the US, it is imperative that in the future these collaborations shall be useful for joint research and defence cooperation in the Arctic as well.

Hence, we see that India is interested in scientific research alliance with the smaller Nordic Arctic nations whereas military and defence alliance with the bigger superpowers. We see a classical example of causality applicable in the case of India in context of the Arctic. Russia seems to be the closest ally of India given their historic relations and mutual trust which have solidified over decades.

[32] Memorandum of Understanding between India and the US, Ministry of Earth Sciences, Government of India. Available at: https://moes.gov.in/writereaddata/files/MOU%20-1%20-%20%20NOAA-2008.pdf accessed on 19 April 2021.

[33] Active International Agreements by Signature Date (as of June 30, 2020), NASA. available at: https://www.nasa.gov/sites/default/files/atoms/files/house_approps_agreement_report_as_of_03-31-2020_international.pdf accessed on 19 April 2021.

[34] India and the US have signed the Basic Exchange and Cooperation Agreement (BECA), the Logistics Exchange Memorandum of Agreement (LEMOA) and the Communications Compatibility and Security Agreement (COMCASA). These three foundational agreements signal mutual trust, close military ties and effective coordination between the forces of the two countries. See, Shubhajit Roy, Explained: BECA, and the importance of 3 foundational pacts of India-US defence cooperation, The Indian Express, New Delhi, November 3, 2020. Available at: https://indianexpress.com/article/explained/beca-india-us-trade-agreements-rajnath-singh-mike-pompeo-6906637/ accessed on 19 April 2021.

Chapter 6 India's engagement with International and regional organizations in the Arctic:

Even though the majority of decisions impacting the arctic are taken by the eight arctic states and their legislative and executive bodies[1], a multitude of circum-arctic and regional institutions also shape Arctic law and policy.[2] The arctic region has become this exemplary model of cooperation in policy making wherein all stakeholders, irrespective of their power and position, influence the governance of the region. In the following paragraphs, this model of cooperation will be examined in detail and India's role in it will be ascertained. Though there are numerous institutions of cooperation operating in the arctic, only the ones with which India interacts on some level will be examined for the purpose of this chapter.

Section 6.1 International Organizations and their legal position under International Law:

Before delving into these organizations, it would be relevant to discuss a bit about the theoretical framework around international organizations and their legal position in relation to the subjects of international law.

Draft article 2 (a) of the Draft articles on the responsibility of international organizations 2011, defines international organizations as "an organization established by a treaty or other instrument governed by international law and possessing its own international legal personality. International organizations may include as members, in addition to States, other entities".[3]

Under the above definition, to be recognized as an international organization, an international entity must fulfil two criteria i.e., firstly, be established by an instrument governed by international law and secondly, possess an international legal personality.

It is noted that an international organization possesses international legal personality if it satisfies the following criteria:

"(1) a permanent association of states, or other organizations, with lawful objects, equipped with organs;

(2) distinction, in terms of legal powers and purposes, between the organization and its member states; and

[1] Piotr Graczyk, "Observers in the Arctic Council - Evolution and Prospects," Yearbook of Polar Law 3 (2011): 575-634 pp 598-599.

[2] For example, even though concluded under the auspices of the Arctic council through its task forces, the Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic [Arctic search and rescue (SAR) agreement] and the Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic were entered into a legally binding treaty only by the eight arctic states. Refer to the Nuuk declaration, 7th ministerial meeting of the Arctic Council, 12 May 2011, Nuuk Greenland & Kiruna declaration, 8th ministerial meeting of the Arctic Council, 12 May 2011, Kiruna Sweden.

[3] International Law Commission, sixty-third session Geneva, 26 April–3 June and 4 July–12 August 2011, Responsibility of international organizations, Texts and titles of draft articles 1 to 67 adopted by the Drafting Committee on second reading in 2011, A/CN.4/L.778, 30 May 2011.

(3) the existence of legal powers exercisable on the international plane and not solely within the national systems of one or more states."[4]

The characteristics imputing international legal personality to an international organization have been widely debated among international law scholars. Due to the existence of a plethora of international organizations with different mandates and objectives, it has never been possible to precisely identify whether a particular international organization possesses legal personality unless that organization has either expressly exercised or failed to exercise its rights and obligations as a legal personality on the international plane.[5]

A subject of international law is defined as a body with rights and obligations internationally which has the capacity to bring claims to maintain its rights and against which claims can be brought for breach of obligations.[6] Even though some experts of international law differ on the meaning of the word 'subject' of international law and don't equate it with international legal personality[7], the author would like to derive subjectivity under international law from the personality of an international institution under international law. In other words, an international organization is a subject of international law if it has an international legal personality.

To conclude from the above discussion, mere possession of international legal personality makes an entity a subject of international law and hence bestows it with rights and obligations under international law. Hence an international organization is a subject of international law if it fulfills the criteria to be identified as an international legal personality.

Section 6.2 The Arctic council, its legal personality and India's role as an observer:
The Arctic Council was established as a "high level forum" rather than an international organization among the eight arctic states as stated in the declaration establishing the arctic council[8]. Its predecessor, the AEPS was also approved as a political rather than a legal commitment. Even though a few elements linked to legal personalities have been bestowed upon the council in the past years[9], it was expressly established and continues to remain without legal personality[10]. However, there is the other side to the coin. If the AC were to

[4] Id at p 157.
[5] See the discussion on 'presumptive personality' by Jan Klabbers in supra note 7 at pp 49-50.
[6] Crawford, James, Subjects of international law, *Brownlie's Principles of Public International Law*, 9th Edition, (p. 105) 4 (9th July 2019).
[7] For example, Jan Kalbbers distinguishes subjectivity and legal personality under international law. See, Jan Klabbers 3rd ed, *An Introduction to International Organizations Law*, Cambridge pp 41-42.
[8] Declaration on The Establishment of The Arctic Council, Joint Communique Of The Governments Of The Arctic Countries On The Establishment Of The Arctic Council, Ottawa, Canada September 19, 1996.
[9] A permanent secretariat has been established in Tromso, Norway. A host country agreement between Norway and the arctic council secretariat was signed recognizing the secretariat as a legal person having the capacity to perform legal functions in Norway. The secretariat has also been granted certain privileges, inviolability and legal immunity. Several legally binding agreements have been concluded under the auspices of the AC. A Project Support Instrument (PSI) was established to maintain collective funds for the activities of the AC. Further reading: Loukacheva, N. (2020). The Arctic Council and "Law-Making". *The northern review*, 109–135 & NEFCO, 'Arctic Council Project Support Instrument becomes operational', 24.09.2014, The Nordic Environment Finance Corporation (NEFCO) available at: https://www.nefco.org/news/arctic-council-project-support-instrument-becomes-operational/ accessed on 21 April 2021.
[10] All speculations about the international legal personality of the Arctic council come to a halt and it is clear that the Council possesses no legal personality, since one of the founding member states, the US, agreed only to the establishment of a body without legal personality (refer to the 'will theory' about creation of international legal personalities for example as discussed by Jan Klabbers id 6 at pp 46-47. For more refer to, Evan T. Bloom, Establishment of the Arctic Council, The American Journal of International Law, Jul. 1999, Vol. 93, No. 3 pp. 712-

undergo our international legal personality test, it would have to satisfy all the three criteria setup above. The AC satisfies the first criterion since it is a permanent association of states with lawful objects and a permanent secretariat. It also satisfies the second criterion since it has a distinct personality than its member states. As far as the third criterion is concerned, this question has drawn eternal debates whether "existence of legal powers exercisable on the international plane" can be categorically answered for a whole lot of International Organizations and specifically the AC in this case. As noted above, it is impossible to ascertain if a certain international institution has legal powers exercisable on the international plane unless the institution has either expressly exercised or failed to exercise them. Same holds true for the AC, since there has not been any instance so far where the council has either expressly exercised or failed to exercise its powers on the international plane. Hence, we are not in a position to definitively answer whether the AC has international legal personality and is a subject of International law. However, if the author were to vote, the AC would be without a legal personality and hence is not a subject of International Law.

Continuing the tradition of the AEPS, the AC also invites, as observers, governmental and non-governmental organizations and non-arctic states, which the council determines can contribute to its work.[11] Observers continue to be invited at the meetings and other activities of the council and its subsidiary bodies, unless their activities are found at "odds with the Council's declaration or the rules of procedure" at which point their membership is suspended by a consensus among the states. Observers have to continue being relevant to the work of the Arctic Council and should be able to make meaningful contributions to its work otherwise the observer status will be revoked[12]. The rules of procedure for the working of the AC contain rights, obligations and code of conduct of the observers in the meetings of the AC and its subsidiaries. The rules of procedure were amended in 2013, removing the confusion between permanent or rather 'recurring'[13] and Ad hoc observers and a detailed guideline for accreditation and review of the observers was prescribed. It is relevant to note here that the role of an ad hoc observer is synonymous to that of an expert and hence doesn't need to be mentioned separately. In 2013, the AC published an observer manual for subsidiary bodies to "guide the Council's subsidiary bodies in relation to meeting logistics and the role played by Observers".

India's scientific exploration in the Arctic solidified in August 2007 when India launched its first scientific expedition to the Arctic which commenced from the international research facility at Ny-Alesund, Spitsbergen, Norway. A permanent Indian research centre called Himadri was established at Alesund Island in 2008.[14] In 2011, India participated in the Arctic science summit as an observer and in 2012 it was elected to the International Arctic Science Committee (IASC). India deployed its first underwater moored observatory named IndARC

722 & Piotr Graczyk, "Observers in the Arctic Council - Evolution and Prospects," Yearbook of Polar Law 3 (2011): 575-634 p. 599.

[11] Arctic Council Rules of Procedure and the annexures.

[12] Ibid.

[13] It would not be appropriate to call them permanent observers since they can be removed quite easily and hence there is no permanency in their tenure. Recurring is a better word since their observer status is subject to constant approval by the AC. See Jessen H. (2018) Arctic Strategies of the EU and Non-Arctic States: Identifying Some Common Elements. In: Hildebrand L., Brigham L., Johansson T. (eds) Sustainable Shipping in a Changing Arctic. WMU Studies in Maritime Affairs, vol 7. Springer, Cham.

[14] Ministry of Earth Sciences, Government of India, 'Arctic Expedition', available at: https://www.moes.gov.in/programmes/arctic-expedition accessed on 21 April 2021.

at Kongsfjorden in Spitsbergen to study the relationship between the Indian monsoon and the Arctic region and carry out various other research activities.[15]

Owing to its track record on Antarctic (polar) research, contribution in Arctic research and a promising future[16], at the ministerial meeting of 2013, India was admitted as an observer to the Arctic council.[17]

Having applied for the observer status of the AC, India agreed to abide by the rules of procedure of the AC. India recognized the sovereignty of the Arctic states, their rights and acceded to their jurisdiction in the Arctic. It also recognized that the existing legal framework (mainly the law of the sea) was a fundamental precept for management of the Arctic ocean. It further recognized its willingness and capabilities to respect and contribute to upholding the interests of the indigenous and other Arctic inhabitants.[18]

Since its inception as an observer, India has carried out numerous research projects in consonance with the objectives of the various working groups of the AC viz. studies of Mercury Geochemistry in the Sediments of Kongsfjorden and atmospheric aerosols over the Arctic under the Arctic Contaminants Action Program (ACAP), Monitoring of Arctic Precipitation and glaciers in Ny-Ålesund and Kongsfjorden system of Arctic region under the Arctic Monitoring and Assessment Programme (AMAP), the study of bacteria diversity and the Arctic Migratory Birds Initiative under the Conservation of Arctic Flora and Fauna (CAFF).[19]

6.2.1 Removal of observers; a potential future issue:

One potential issue concerning removal of observers might arise in the future. According to the rules of procedure "Once observer status has been granted, Observers shall be invited to the meetings and other activities of the Arctic Council unless SAOs decide otherwise. Observer status shall continue for such time as consensus exists among Ministers. Any Observer that engages in activities which are at odds with the Council's Declaration, or these Rules of Procedure shall have its status as an Observer suspended". As a principle, all decisions in the AC are made with consensus.[20] Drawing parallels to the decision-making procedure of the dispute settlement body of the WTO, where 'reverse or negative consensus' is also a prevalent mechanism to arrive at decisions.[21] In case of the AC though, under the 'reverse consensus', there has to be a consensus of all the members to approve the negative

[15] Venkatesan R, Krishnan K, Arul Muthiah M, et al. Indian moored observatory in the Arctic for long-term in situ data collection. The International Journal of Ocean and Climate Systems. 2016;7(2):55-61.

[16] See, Navtej Sarna, India: The Third Pole, The Circle WWF Magazine No. 3 2014, pp 18-19. https://d2ouvy59p0dg6k.cloudfront.net/downloads/circle_0314_asia_web.pdf accessed on 21 April & Yereth Rosen, 'From the south, keen interest in the Arctic and the Arctic Council' Alaska Dispatch News May 15, 2017, Arctic Today. Available at: https://www.arctictoday.com/from-the-south-keen-interest-in-the-arctic-and-the-arctic-council/ accessed on 21 April.

[17] Kiruna Declaration Kiruna, Sweden, 15 May 2013.

[18] Arctic Council Rules of Procedure as adopted by the Arctic Council at the First Arctic Council Ministerial Meeting Iqaluit, Canada September 17-18, 1998. Revised by the Arctic Council at the Eighth Arctic Council Ministerial Meeting Kiruna, Sweden May 15, 2013. Also see, India's Engagement with Arctic Council, December 2016, India observer activity report to the AC, p.3.

[19] Projects implemented in Arctic, National Centre for Polar and Ocean Research, ministry of earth sciences India. Available at: http://ncaor.gov.in/arctics/display/391-projects-implemented accessed 19 April 2021 & Chauhan, Manish, Republic of India's 2018 Observer Review report, 2019-03, The Republic of India's 2018 Review report to the Arctic Council, on participation in Arctic cooperation and AC work.

[20] As written in the Ottawa declaration and rules of procedure.

[21] See more on the decision-making procedure of the dispute settlement body of the WTO. WTO Bodies involved in the dispute settlement process, WTO. Available at: https://www.wto.org/english/tratop_e/dispu_e/disp_settlement_cbt_e/c3s1p1_e.htm accessed on 19 April 2021.

decision being taken (in this case removal of an observer). The AC has not dealt with such sophisticated and complex situations so far which would need a more elaborated procedure to make decisions (Unlike the dispute settlement body of the WTO). Even though the AC has not removed any observer till date, it would be interesting to see how the word 'consensus' will be interpreted when it comes to removing an observer.

From the above discussion it is inferred that observers have a significant[22] but restricted[23] and historically marginalized[24]and symbolic role to play at the arctic council under the present setup of the council. To study the position of observers in the AC, analogy could be drawn by the standing/position of the AC in International Law. It would not be incorrect to say that the observers are to the Arctic Council what Arctic Council is to International Law.

The arctic states are not interested in empowering the AC more than what is just enough to continue its mandate on sustainable development and environment protection and want to deal with potential legal issues bilaterally/multilaterally under the already existing mechanisms of the law of the sea.[25]

Regulating the Arctic requires a different approach compared to the Antarctic because of the geographical differences between the regions as discussed by numerous authors in the past. Furthermore, the existing legal regime in the Arctic leaves no scope of a treaty like the Antarctic since rights and obligations of the Arctic states are already governed by and settled through the UNCLOS and the evolving Arctic regional governance regime with multiple institutions involved. India is better off pursuing its ambitions in the Arctic by entering into bilateral agreements with the Arctic states which it has been doing[26]. For example, Indian fossil fuel companies signed agreements with their Russian counterparts for exploitation of

[22] As observed above, for example, India has carried out significant projects in the arctic which align with the objectives of the working groups of the Arctic council. Other observers have also made valuable contributions to the environmental research in the arctic. Furthermore, at all the ministerial meetings of the AC, the role of the observers is always commended., see Rovaniemi Ministerial Statements Rovaniemi, Finland 7 May 2019.

[23] The membership of the non-arctic state observers is ad hoc since they are not a part of the council due to their geographical dispositions. Whenever an observer fails to satisfy the council with the need to remain an observer and does not reinforce it time and again, the observer is dropped from the council. The observers stand last in the order of priority when it comes to representation at the council proceedings. Even though the observers can initiate proposals for research projects, their funding for a project cannot be more than that of a member state, unless otherwise agreed by the council. For more discussion on the influence of the observers in the council, see, Andrew Chater (2016) Explaining Non-Arctic States in the Arctic Council, Strategic Analysis, 40:3, pp 173-184.

[24] Supra note 1.

[25] For example, under the Arctic SAR agreement and the Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic (MOSPA) agreement, the parties have agreed to resolve disputes through direct negotiations. Under the Ilulissat declaration passed in 2008, the member states reaffirmed the sufficiency of the existing legal framework to deal with disputes and challenges in the Arctic and that no other legal framework was required. Furthermore, the council does not deal with issues of military security since the declaration discourages raising such issues at the council fora.

[26] Since observers have no rights whatsoever under the AC, they are better off dealing with the Arctic states bilaterally. Furthermore, the observer states have full membership and hence decision-making powers in other International organizations where also decisions affecting the Arctic are taken. For example, UNCLOS, the UN based climate regime, Stockholm POPs convention etc. Shiloh Rainwater, 'International Law and the Globalization of the Arctic: Assessing the Rights of Non-Arctic States in the High North ' (2015) 30 Emory Int'l L Rev 115 p136.

fossils in the Russian Arctic[27]. India also has research agreements with Norway such as the INDNOR programme[28].

Sensationalized articles and speculations about the exploitation of the Arctic resources by the Asian states seem to exaggerate and twist the ground reality in the Arctic.[29] Not only is the viability of Arctic resource extraction yet to be established, moreover there are better alternatives to these potential Arctic "goldmines" when it comes to fossil fuels.[30] At the best, therefore, India is better off focusing on mineral and seaport development in the Barents region.[31]

6.2.2 The case for making the observers at par with permanent participants in the AC:
One suggestion that has circulated in the academic community regarding strengthening the position of observers in the AC is to form an advisory body consisting of relevant and interested non-Arctic state observers. Even though details about such a body and its precise relationship with the council has not been commented upon, it seems to be implausible at the moment that the Arctic states would even slightly upgrade the observers' status in the council.[32] With the globalization of the Arctic issues and the intertwined nature of Arctic and global phenomena, it is important that non Arctic states play a more influential role at the AC.[33] The non-arctic states should deliver a joint message demanding the setting up of such an advisory committee and make it at par with the status of the permanent participants. The Arctic Athabaskan council AAC, in the past has mentioned "Increasing the role and participation of observer states in activities of the council" as one of its key suggestions as the way forward for the AC. The Senior Arctic Officials, in a report recommending improvements in the working of the AC, highlighted the importance of expanding the role of the observers.[34] The arctic is covered under international law of the sea. There are regions in the arctic that are the high seas and the Area and hence all countries have equal rights of participation to make laws for those regions. All countries also enjoy certain rights in the territorial seas, straits and the EEZs of the arctic states. If the AC makes rules for those areas and the other countries

[27] Atle Staalesen, 'New Delhi confirms its stake in the new Arctic oil project', January 16, 2020, the Barents Observer, Available at: https://thebarentsobserver.com/en/ecology/2020/01/new-delhi-confirms-indian-stake-rosnefts-new-arctic-oil-project accessed on 19 April 2021.
[28] The Research Council of Norway, The Norwegian Programme for Research Cooperation with India – INDNOR Work plan 2018 – 2021, Available at: https://www.forskningsradet.no/siteassets/programmer/programplaner/indnor-work-programme.pdf accessed on 19 April 2021,
[29] Julie Babin & Frederic Lasserre (2019) Asian states at the Arctic Council: perceptions in Western States, Polar Geography, 42:3, 145-159.
[30] Ibid & Rasmus Gjedssø Bertelsen, Vincent Gallucci, The return of China, post-Cold War Russia, and the Arctic: Changes on land and at sea, Marine Policy, Volume 72, 2016, Pages 240-245. Available at: http://www.sciencedirect.com/science/article/pii/S0308597X16302214 accessed on 22 April 2021. Furthermore, countries are rapidly progressing towards replacing the current energy sources with renewable energy.
[31] Whitney Lackenbauer, P. 'India and the arctic: revisionist aspirations, arctic realities' *Jindal Global Law Review* 8, 34 (2017).
[32] 'Interests And Roles Of Non-Arctic States In The Arctic' Seminar presented by the National Capital Branch of the Canadian International Council and the Munk-Gordon Arctic Security Program, Ottawa,October 5, 2011 Report.
[33] Academicians at large agree that the role of the observers in the AC should be strengthened. For example see, Heather Exner-Pirot et al, Form and Function: The Future of the Arctic Council February 5, 2019, The Arctic Institute. Available at: https://www.thearcticinstitute.org/form-function-future-arctic-council/ accessed on 21 April 2021.
[34] Arctic Council, SAOs Report to Ministers on the Review of The Arctic Council Structures, at 4,9, SAO2002/A/8.0 (May 15, 2002).

don't have a right to vote on those decisions, it is against the international law of the sea. [35]

Section 6.3 Other regional organizations in the Arctic and India's involvement with them:

Arctic Council and Ilulissat, "Arctic 5": Even though the Arctic 5 have issued separate statements in the past[36], nothing has materialized from those and the actual work is carried out via the Arctic council and other organizations. However, the Arctic 5 is an informal group with infinite possibilities and is not bound by any policies or procedures and hence India can engage with it outside of the AC.[37]

The Arctic Economic Council (AEC) An independent organization formed by the arctic council in 2014 to facilitate sustainable economic activities and business development in the Arctic Same as the legal nature of the AC. The AEC is the linkage of the AC to businesses in the Arctic region as well as businesses outside the Arctic region which are interested in doing business with the Arctic region. The AEC also works as the AC's underlying steer vis-a-vis the future economic policy in the Arctic.[38] India has not had any interactions with the AEC in the past, however, it is likely to do so in the future. For example, FICCI and the AEC.

The **Nordic Council** is inter-parliamentary, is led by the secretary general, its members are the MPs of the member states and nominated by party groups, it is run by a presidium "two annual meetings – the Ordinary Session (held in the country holding presidency of the nordic council, to select the president, vice president and the members of the presidium) and the Theme Session (held in the country holding the presidency of the nordic council of ministers), at which the Nordic politicians make decisions on issues that they call on the Nordic governments to implement. Work is done through committees and party groups. The **Nordic council of ministers** is inter-governmental, is led by the PMs of the Nordics, "In practice responsibility for the co-operation is delegated to the Ministers for Nordic Co-operation (MR-SAM) and to the Nordic Committee for Co-operation (NSK)".

The Nordic Atlantic Co-operation (NORA) is an intergovernmental agency and part of the Nordic Council of Ministers' regional policy programme. Though India has had a few interactions with the Nordic Council in the past (first India Nordic summit in 2018), all the Nordic council members are the members of the AC too and hence everything Arctic related has been discussed at the AC platform.

Barents Euro Arctic council (BEAC) and the Barents Regional Council (can be considered a subsidiary of the BEAC): India attended a special EU Arctic forum organized under the Swedish chairmanship of the BEAC in 2019 to "discuss international relations in the Arctic, ecology and climate change, investment cooperation, the Internet and communications". The

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[35] Yoshinobu Takei, 'Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic: an assessment', Aegean Rev of the Law of the Sea (2013) 2:81–109, pp 94-95.

[36] 2008 Ilulissat Declaration Adopted in Ilulissat, Greenland on 28 May 2008, Arctic Ocean Conference, Ilulissat, Greenland, 27 – 29 May 2008.

[37] Andreas Kuersten, 'The Arctic Five Versus the Arctic Council' Arctic yearbook 2016 briefing notes. Available at: https://arcticyearbook.com/arctic-yearbook/2016/2016-briefing-notes/205-the-arctic-five-versus-the-arctic-council accessed on 22 April 2021.

[38] Arctic Council, Ninth Ministerial Meeting Iqaluit, Nunavut, Canada 24 - 25 April 2015, p 24, Information for Press. Available at: https://oaarchive.arctic-council.org/bitstream/handle/11374/921/ACMMCA09_Iqaluit_2015_PRESS_BROCHURE_18_April_2015.pdf?sequence=1&isAllowed=y accessed on 22 April 2021.

Barents region is well aware of the potential it has in terms of minerals and ores. It also looks towards India as a potential collaborator in terms of extraction and usage of its natural resources[39].

In 2012 in recognition of India`s input in exploration of the High North, India was elected to the Council of the International Arctic Science Committee (IASC) which is a nongovernmental organization bringing together all countries (despite their geographical location) conducting Arctic Research. India is increasingly interacting with research initiatives in the Arctic such as the Arctic frontiers and the Arctic circle. India is one of the founding members of Asian Forum for Polar Sciences as well as member of International Cooperation in Ridge-crest Studies (InterRidge), Ny-Ålesund Science Managers Committee (NySMAC) and Polar Earth Observering Network (POLENET).

India has no engagement with the Council of the Baltic Sea States (CBSS), the Pacific Northwest Economic Region (PNWER), DEEA - the European Parliament's Delegation for Northern cooperation, the Conference of Parliamentarians of the Arctic Region (CPAR) which played a key role in the establishment of the Arctic council, the European Polar Board (EPB), The Northern Forum, the Northern Dimension (ND) and the West Nordic Council.

[39] Barents Euro-Arctic Council, The joint Barents transport plan, p 25. Available at: https://www.barentsinfo.fi/beac/docs/Joint_Barents_Transport_Plan_2013.pdf accessed on 23 April 2021.

Chapter 7 Concluding remarks and India's draft arctic policy:

In this paper, provisions of International treaty law applicable in the Arctic and the disputes arising therein have been analyzed in detail. Such an analysis is considered necessary because these issues have never been analyzed from India's perspective before. For example, the arctic passages have been analyzed so far by authors from the respective states that dispute the passages such as the US and Canada for the NWP and US and Russia for the NSR. These passages have never been analyzed from the perspective of India. India's interests are best served when these passages are well regulated by their respective coastal states as well as freedom of passage for other states is well maintained. This should be set forth in the Arctic policy of India that India firmly stands by the application of the law of the sea principles vis-a-vis the arctic passages and recognizes the sovereignty of the coastal states under the LOS principles but also stands by the right of passage of the international community through these passages. India need not risk alienating the coastal states by questioning their sovereignty over these passages but at the same time also assert its right to passage through these passages under LOS convention. Extending this analogy to the whole of Arctic, India's official policy towards the Arctic should carve out a middle path between the sovereignty of the Arctic states and the right of non-Arctic states to be active in the Arctic with the help of the existing provisions the LOS convention and their interpretation. This paper has also analyzed India's state Practice in the foresaid issues, and it has been determined that mutualities exist between the two regions which could serve as lessons one could take from another or even subjects of future collaboration. We see that most of the actual work on the ground is carried out through bilateral efforts and hence India has carefully teamed up with different Arctic states in a particular sector where it is most advantageous to both the parties, for example, research association with Norway whereas military, energy, and trade association with Russia. There are some other Arctic countries (e.g., Finland, Iceland, Canada) with potential future collaboration opportunities for India. A recent collaborative project between Finnish and Indian Universities to strengthen mutual research and education among indigenous and tribal people of both the countries[40] is a sign of such opportunities being materialized and is a welcome step.

[40] Arctic Centre, Finland and India to develop indigenous and tribal peoples' studies, 23.10.2020, Arctic Centre University of Lapland. Available at: https://www.arcticcentre.org/news/Finland-and-India-to-develop-indigenous-and-tribal-peoples-studies/39649/250c647b-5422-46a1-afbf-a429257bdb2d accessed 23 April 2021.

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