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UNCLOS: Facilitating ocean governance and maritime security

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ABSTRACT

The world's oceans are facing a multitude of security challenges across various domains that require dynamic and varied responses, specific to the threat. The United Nations Convention on the Law of the Sea (UNCLOS) provides a comprehensive regulatory framework for ocean governance, facilitating a cooperative approach to addressing regional bilateral and multilateral divergences affecting the maritime security dynamic in various parts of the globe. This is also supported by various other conventions aimed at protecting the oceans and ensuring their sustainability for the future. However, the effective implementation of these depends on the will and the inclination to do so. This article highlights some specific areas of concern and offers a perspective on how UNCLOS can be used effectively to address the wide spectrum of kinetic and non-kinetic challenges in the maritime domain through efficient and effective regional multilateral governance architectures.

KEYWORDS

UNCLOS; maritime; security; capacity-building; transnational threats; cooperation; high seas

Introduction

Regulation of the oceans, which cover over 70 per cent of the earth's surface and are the lifeline of the global economy is as much a necessity as a challenge. The maritime domain has, in many ways, shaped the destiny of the world and has been instrumental in orchestrating the rise and fall of great powers. From the time of the Peloponnesian War to the current emerging great power rivalry brewing in the Indo-Pacific, domination of the oceans remains the key to global power. Cooperation is giving way to competition and the global commons are under stress from multiple pressures and interests leading to an unstable maritime environment. Hence, the importance of a robust regulatory mechanism and a collective approach to ensure the security of the maritime domain needs little emphasis and is an inescapable imperative in the uncertain world that we live in.

The seas are regarded as the “common heritage of mankind”, a term coined in 1967 by Arvid Pardo, the Maltese Ambassador to the United Nations (UN), and therefore need to be regulated and controlled.¹ While land borders divide, the seas unite. Ever since man ventured into the high seas, they have been the maritime highways over which commerce and energy have travelled across the globe. In this era of globalization, connectivity and trade dependencies, which transcend cartographic geographies, this is happening more than ever before. With the burgeoning global population and the rapid depletion of

land resources, the seas are becoming the source for the future sustenance and development of humankind. The seamless expanse of the oceans therefore not only offers vast opportunities but also gives rise to numerous challenges in the maritime domain with security being one of them. The wide spectrum of contemporary maritime security challenges makes it impossible for any one nation to address these. A multilayered, multi-dimensional and multinational approach to ensure adherence to an established international rules-based order and compliance with laid-down laws and conventions is therefore the key to protecting this critical resource for the future.

Maritime governance over the centuries has been driven by geopolitical power rivalry, economic imperatives, hegemonistic ambitions and various other factors which have shaped both, cooperation and competition. However, the underlying conviction that the open seas are for everybody to use has endured. The contemporary maritime environment is governed by the 1982 United Nations Convention on the Law of the Sea, which is in its third iteration (UNCLOS III) since it was first codified in 1958 under the aegis of the UN. UNCLOS primarily defines the extent of sovereign maritime boundaries while respecting the principle of “*mare liberum*” which can be defined as “the sea is open to all nations”. This was first propagated by the famous Dutch lawyer Hugo Grotius in 1608, primarily to argue for the free and unhindered passage of Dutch ships to the Dutch East Indies and to counter the influence of the Church to some extent.²

Historical perspective

Grotius was challenged by an English lawyer John Selden, articulating *mare clausum* (1635), who suggested that seas contiguous to the coastline of a country should be under the dominion of that country and were a reflection of his country’s views.³ Such arguments eventually led to the introduction of territorial waters. However, it was the Grotian view that ultimately prevailed and became the basis for marine governance of that period. The first attempt at ownership of the sea was expressed by Cornelius van Bynkershoek, a Dutch lawyer who believed that states should have a limited right to own and occupy some sea space and propagated the “cannon-shot rule”. In his view, ownership of the sea was possible only as far as “the cannon will carry”. This soon became the accepted norm⁴ and became the basis for the three mile limit being legitimately accepted as the extent of the territorial sea.

Limited ownership of the sea also suited the large maritime powers who, were thus able to dominate, control, and travel over vast portions of the sea for trade and in pursuit of dominion. The nineteenth century witnessed a series of transformational events that altered the global approach to the maritime domain and continue to influence the governance of the oceans even today. The opening of the Suez Canal in 1869 immediately reduced the navigable distance by almost 4,000 miles for ships travelling across the oceans. The regulations governing the use of the Suez Canal were enshrined in the Constantinople Convention signed on October 29, 1888. Its Article 1 defined that it will always be free and open for navigation “without distinction of flag” in times of war and peace and further stipulated that it “shall never be subjected to the exercise of the right of blockade”.⁵

In 1866, the first undersea cable was successfully laid between Ireland and Newfoundland. While protection of these cables was a concern, which led to the 1884 Convention

for the Protection of Submarine Cables⁶, the freedom to lay cables in the high seas was never questioned or challenged.

It was during this period that curiosity about the maritime domain led to the beginning of marine research. A converted Royal Navy corvette, *HMS Challenger*, undertook an expedition between 1872 and 1876. It covered over 68,000 miles and collected extensive data besides various types of marine flora, fauna and objects which included ferromanganese nodules. It discovered the Marianas Trench (26,850 feet deep), the Challenger Deep (37,800 feet and the deepest point of the ocean) and the rise in the middle of the Atlantic Ocean, now called the Mid-Atlantic Ridge.⁷ Oceanographic research picked up pace and soon all major maritime powers began undertaking expeditions to unravel the mysteries of the deep.

In the 1870s, the introduction of steam powered fishing trawlers led to fishing far from home. While this did lead to concerns of overfishing, the majority view was that the abundance of fish in the ocean would preclude that from ever happening. Towards the end of the nineteenth century, offshore oil exploration also made humble beginnings.

The Industrial Revolution and the transition from sail to steam effected a remarkable transformation in the global maritime landscape and the spirit of human endeavour began to have an impact on the oceans in many ways. This also led to greater effort at regulation and organisation of the maritime space.

The sinking of the liners *Lusitania* and *Athenia* by German U-boats in World Wars I and II, respectively, sent shock waves through the maritime community. Unrestricted submarine warfare – first by Germany against the Allied forces and later, by the United States (US) against Japan – had rudely violated the freedom of the open sea.

In 1930, the League of Nations Codification Conference was held at The Hague. It was unsuccessful in addressing the issue of territorial waters, except for certain draft articles that were accepted by governments to a limited extent.⁸

These major developments in the maritime domain and the efforts to address the security and economic risks arising from them were addressed periodically, but regulation in this domain continued to be inconsistent.

The evolution of UNCLOS

The requirement of a regulatory framework to govern the world's oceans and establish a uniform limit of sovereign maritime boundaries towards mitigating the occurrence of maritime territorial disputes as also to protecting and conserving the marine environment was felt after World War II as nations began advancing their territorial claims further seawards from the commonly accepted three-mile limit. In 1945, President Woodrow Wilson extended the US's territorial sea rights up to the extent of its continental shelf. Many countries followed suit by fixing different limits; Chile, Ecuador and Peru declared a 200-mile zone as their territorial sea to protect their fishing rights.⁹

Work on a uniform global framework began in 1949. The International Law Commission prepared four draft conventions. This led to the First conference on the Law of the Sea (UNCLOS I) being held in 1956, and resulted in four treaties being concluded at Geneva between February 24 and April 29, 1958. These were the Convention on Territorial Seas and Contiguous Zones, the Convention on the Continental Shelf, the Convention on the High Seas and the Convention on Fishing and Conservation of Living

Resources on the High Seas. These ultimately came into force between September 30, 1962 and March 20, 1966.¹⁰ However, there were still unresolved issues such as a decision on the maximum breadth of the sea. This could not be established even at the Second Conference (UNCLOS II) held at Geneva from March 17 to April 26, 1960. Held over a duration of six weeks in the shadow of the bipolar Cold War world order, it did not result in any new agreements.

The Third Conference (UNCLOS III) was held in New York. More than 160 countries participated in the discussions, which continued from 1973 to 1982. The Convention was signed on December 10, 1982 at Montego Bay in Jamaica and finally came into force on November 16, 1994 after Guyana became the 60th nation to ratify it. One hundred and sixty-eight parties comprising 164 UN member states and four others – Palestine (UN Observer State), the Cook Islands, Niue, and the European Union (EU) as a separate entity have now ratified it. It is a completely binding document and comprises 17 parts, 320 articles and nine annexures and clearly defines maritime zones, namely, the baseline, the territorial waters, the contiguous zone, the exclusive economic zone (EEZ), the continental shelf, the international seabed area, and archipelagic waters.¹¹

The UNCLOS has been described variously as “the strongest comprehensive global environment treaty negotiated to date”¹² but has also faced criticism for not being effective enough. The world’s leading maritime power, the US has not ratified it: initially for its disagreement on deep seabed mining and subsequently, because of various reasons, including sovereignty issues.¹³ China, on the other hand, has ratified it but pays scant attention to its provisions when its own interests are affected. Contradictions like these have an adverse impact on maritime security in both, territorial waters and on the high seas.

As per the Convention, states have the jurisdiction and are free to manage, develop and exploit all resources within the sea, the floor and the subsoil within their EEZ; this has led to 38 million nautical square miles of ocean and about 87 per cent of all known hydro-carbon reserves coming under some sort of national jurisdiction.¹⁴

While UNCLOS has demarcated coastal waters with the rights and privileges of states clearly defined, similar regulation governing the areas beyond national jurisdiction (ABNJ), which constitute 64 per cent of the world’s ocean space is presently inadequate for the conservation and sustainable use of this medium. Irresponsible exploitation of the open seas is rarely checked even by flag states who not only often turn a blind eye towards their own agencies indulging in this but in a few cases even support it. The unchecked depredation of marine resources and the destruction of biodiversity in the ABNJ because of the concept of open seas is a matter of concern and a maritime security challenge. Open ocean governance has been addressed to some extent by the formation of the International Seabed Authority (ISA) as a distinct institutional mechanism to deal with those maritime areas, which are not owned by states. However, the efficacy, or lack of it of the ISA highlights the difficulties of regulating the open oceans which have been described by some as “characterized by anarchy”.¹⁵

Besides the ISA, UNCLOS has also led to the development of other important conventions governing different aspects related to the oceans and maritime security, including the International Tribunal for the Law of the Sea (ITLOS), the International Whaling Commission, and the International Union for Conservation of Nature (IUCN),

amongst others. Its limitations notwithstanding, UNCLOS has been successful in ensuring adherence to a framework that has stood the test of time in mitigating tensions over maritime spaces and improved the protective environment for the conservation and responsible exploitation of marine resources.

The preamble of the Convention states its aim of settling “all issues relating to the law of the sea” and is “conscious that the problems of ocean space are closely interrelated and need to be considered as a whole”.¹⁶ It also takes into account that without compromising sovereignty, it will “promote the peaceful uses of the seas and the oceans, the equitable and efficient utilization of their resources, the conservation of their living resources, and the study, protection and preservation of the marine environment”.¹⁷

Hence, in a nutshell, the UNCLOS provides an inclusive legal framework which respects sovereign waters while encouraging a cooperative approach towards the exploitation of the oceans as a global common. As the importance of the maritime domain increases and it increasingly becomes the source for future global sustenance, so will the importance of UNCLOS for addressing the emerging competition and contestation on, for, and from the sea.

Changing nature of the maritime threat

One of the objectives of a universally accepted legal framework is to resolve tension amongst nations over maritime disputes and to mitigate emerging security challenges. Ocean governance remains a serious challenge. Nations continue to feud over control of their common waters with these disputes often leading to dangerous brinkmanship and potential escalation. The nature of the maritime threat has also evolved over time and is undergoing a distinct transition from the primacy of kinetic state-on-state conflict, which is the *raison d'être* of navies the world over, towards a wider spectrum of challenges which threaten the peaceful use of the sea. These threats extend across the strategic, operational, tactical and sub-conventional domains thus requiring different prevention and response strategies. Concepts such as gunboat diplomacy in less-than-war situations or the threat of blockades and other coercive measures have given way to more contemporary hybrid warfare and grey zone tactics, which, as the very name suggests is a nebulous state between war and peace with the potential to provoke an unintended escalation.

The term “maritime security” has itself undergone a paradigm shift and is no longer restricted within the narrow confines of the commonly understood meaning of the word “security”. The maritime domain is inextricably linked to national and international political, economic, legal and societal issues each of which not only has an impact on maritime security but in the larger context, on humankind as well. Tackling the emerging existential challenge posed by the effects of climate change or developing a sustainable Blue Economy model are also intrinsic to ensuring maritime security.

Further, the current uncertainty in the global order and numerous trouble spots across the world have resulted in a host of non-traditional and transnational security challenges in the maritime domain. Undersea communication cables are under threat of being damaged by inimical forces; piracy and armed robbery remains a live threat and rears its ugly head in different parts of the world on a regular basis; insurgencies are spreading into the maritime domain with the lethality and intensity of the attacks increasing by the day with the active involvement of state and state-supported elements. The spectre of

maritime terrorism is omnipresent; human rights at sea are often called into question; fishing stocks the world over are depleting rapidly; the melting of glaciers and the polar ice cap is accelerating global warming; the acidification of the oceans is on the rise; the effects of seabed mining on the fragile marine ecosystem are yet to be fully understood and the quest for maritime domination is leading to a competitive and confrontational maritime environment. The governance deficit in certain countries and regions due to political instability, internecine conflict, internal insurgencies, separatist movements and economic deprivation makes them vulnerable to exploitation by inimical external forces. These are further exacerbated by the increasing frequency of natural disasters caused due to the effects of climate change that render large sections of coastal communities destitute and robbed of livelihoods besides the loss of life and property.

Transnational dimension

About 90 per cent of global trade transits over the sea on more than 50,000 ships.¹⁸ The volume of global trade in 2020–21 was 10.6 billion tonnes despite the slump caused by the COVID-19 pandemic.¹⁹ In 2020, 131 countries imported crude oil worth more than US\$ 709 billion,²⁰ which travelled on huge tankers across geographies. In this age of transcontinental connectivity, the economic fall-out of the COVID-19 pandemic exposed the vulnerability of the global supply chains, thereby leading to a renewed thrust on ensuring their resilience. Hence, the safety and security of the global sea lines of communication (SLOCs) and the maintenance of good order at sea is critical to keep the wheels of the global economy rotating smoothly. This will only be possible with a collective approach to maritime security.

Perhaps the most recent and prominent example of a successful collective approach to maritime security was the response to the scourge of piracy off the coast of Somalia in the Horn of Africa. It took a coordinated approach by powerful warships of more than 20 navies bristling with weapons and sensors, from all over the world, almost four years to quell this menace that was posed by groups of young “pirates” brandishing AK-47s and a sense of bravado travelling in small skiffs who were able to hold global trade to ransom. This was obviously part of a larger political and economic mess created by a failed state with a severe governance deficit, but containing it at sea required an effort that was grossly disproportionate to the menace. Such is the nature of the asymmetric sub-conventional threat. Piracy is just one of many transnational threats; the uncertain world we live in has many more. That many of these are state-sponsored makes this even more disconcerting.

While the threat of piracy is localised and tactical in nature, the more insidious threat is one that comes from the strategic intent of nations seeking to reshape the existing rules-based order and staking illegal hegemonistic claims to the global commons in pursuit of their global ambitions. In the last two decades, China’s maritime belligerence in the East China Sea, its territorial claim over approximately 80 per cent of the South China Sea enclosed within the Nine-Dash Line based on some dubious historical claim, and its active support to all manner of illegal activity at sea has raised regional concerns across the Indo-Pacific. China has reclaimed various features in the South China Sea and is claiming these as islands in spite of many of these not conforming to the definition given in UNCLOS.²¹ Also, despite reassurances to the contrary, it is actively

militarising these islands with the deployment of missile batteries and the frequent movement of military aircraft, all of which pose a serious challenge to the freedom of the seas and a Free and Open Indo-Pacific (FOIP).²²

Ironically, while debunking the definition of these features in UNCLOS, China is invoking the same UNCLOS to stake its claim to territorial waters and an EEZ around these features. This is not only aggravating China's maritime disputes with five of its maritime neighbours, but also undermining the delicate security dynamic in the region and raising serious concerns about the future. Its grey zone tactics in the South China Sea, with its sizable coast guard and large maritime militia of armed trawlers intimidating the naval presence of its smaller maritime neighbours are also a serious cause for concern.

In 2016, the disdain with which China dismissed the award given by the Permanent Court of Arbitration (PCA) at the Hague in favour of the Philippines in a maritime dispute between the two countries jolted the global maritime community. The award denied China "historic" rights within the nine-dash line, and clearly stated that there is no island in the Spratlys which enjoys an EEZ or a continental shelf. China neither participated in the proceedings and nor did it appoint an arbitrator. This was well within its rights but rejection of the award was not.²³ As a permanent member of the United Nations Security Council (UNSC) and having ratified the UNCLOS, China, instead of ensuring global adherence to UNCLOS, was in open defiance of it.²⁴ This was an unfortunate development as such actions have the potential to undermine not only the UNCLOS, but the very essence of freedom of the seas.

With the global geo-economic and geopolitical centre of gravity shifting to the Indo-Pacific which is home to more than 60 per cent of the global population and generates more than 62 per cent of the global gross domestic product (GDP),²⁵ any threat to a Free and Open Indo-Pacific (FOIP) will have a considerable impact on the global economy. This has led even Euro-centric nations like Germany and the Netherlands to articulate their Indo-Pacific strategies, as have France and the United Kingdom (UK) who maintain a permanent naval presence in the region. In addition, in view of the growing importance of the region, the EU's "Strategy for Cooperation in the Indo-Pacific" highlights the importance of engaging with the region to "reinforce the international rules-based order" and address global challenges, amongst its other objectives.²⁶ It covers a wide spectrum of activity, all of which are underpinned by collective and cooperative capacity building. With the Quadrilateral Security Dialogue (Quad) and other like-minded nations in the region also supporting an FOIP, it is a good example of a cooperative approach towards addressing the significant maritime security challenges that contravene not only specific clauses but the very basis of the UNCLOS. It also reinforces the merits of a cooperative approach to mitigate the potential of a contested environment from becoming a destabilising factor in maritime affairs.²⁷ The global nature of the maritime domain and the cross-linkages across the length and breadth of the oceans brings into focus the impact of transnational threats, a few of which have been briefly enumerated below.

Maritime terrorism

Maritime terrorism is an omnipresent threat because the sheer audacity of an attack on or from the sea attracts global attention. The attack on the USS Cole in October 2000,²⁸ the Pakistan-supported Lashkar-e-Taiba's attack on Mumbai on November 26, 2008,²⁹ Al

Qaeda's attempts to hijack a Pakistan Navy warship in Karachi³⁰ and numerous other incidents have exposed the vulnerability of the maritime domain, including porous coastlines, to terrorism. At the height of Somali piracy when that country was falling apart, there was a very real possibility of the Al Shabab group linking up with the piracy networks to expand their web of terror into the maritime domain.³¹ Perhaps the first militant organisation with an organised marine wing was Sri Lanka's Liberation Tigers of Tamil Eelam's (LTTE) Sea Tigers who were a thorn in the flesh of the Sri Lankan Navy through a 25-year civil war.³² While the LTTE may have been the first, it will definitely not be the last. Preventing maritime terrorism requires a very robust legal and constabulary framework. However, there has been little success on developing a global response mechanism.

In the aftermath of the terrorist attacks in the US on September 11, 2001, the US government announced the Container Security Initiative (CSI) and the Proliferation Security Initiative (PSI). The CSI, announced on January 1, 2002 is meant to prevent the possibility of a container being used by terrorists for carrying weapons. US Customs officials are positioned at foreign ports to screen containers bound for the country to detect any possible terrorist connection. Presently, 58 ports across the world prescreen over 80 per cent of containerised cargo headed for the USA.³³ The PSI is an international initiative launched by the US on May 31, 2003 to prevent the movement of weapons of mass destruction and related materials through the maritime domain. Presently, 107 countries are a part of PSI, which includes interdiction of suspected cargo on the high seas, information sharing and strengthening the legal framework to address interdiction and other related issues.³⁴ While the CSI and PSI are good examples of a cooperative multinational approach to maritime security, they have failed to gain universal acceptance because of sovereignty concerns and the infringement on the freedom of the sea. Both have been perceived as the US's unilaterally driven initiatives without an endorsement by the UN, their claims to the contrary notwithstanding, and like many other aggressive Bush-era initiatives post 9/11, have not resonated favourably with many countries. Despite being at the forefront in supporting a rules-based international order and safe and secure seas, India has not signed on to either of these two initiatives.

On July 1, 2004, the International Maritime Organisation (IMO) introduced the International Ship and Port Facility Security (ISPS) Code under Safety of Life at Sea (SOLAS) Convention Chapter XI-2. The objective was to create an international framework for the safety and security of ships, seafarers, ports, government agencies etc.³⁵ The ISPS is a comprehensive mechanism detailing the need for security and the means to achieve it. However, its implementation, though laid down in detail, is dependent on the commitment of individual countries and the availability of resources to do so. For instance, in India too, many of the non-major ports lack even basic security measures: hence vulnerabilities remain. Maritime terrorism is a clear and present danger and the need to combat it is well understood. However, these initiatives notwithstanding, a greater sense of urgency and effort is required by individual countries to develop their own capacity to contribute meaningfully in a cooperative security framework.

Illegal, unregulated and unreported (IUU) fishing

Maritime tensions between states over fishing rights and areas is not a new phenomenon. The Cod Wars, a series of stand-offs between the UK and Iceland over fishing rights

during the Cold War years, is a relatively recent example and highlights the extent to which countries could go to protect their fishing rights. While the UK challenged Iceland's claims and both countries projected their respective points of view, Iceland finally prevailed because not only did its argument perhaps have greater legitimacy but also because it threatened to withdraw from the North Atlantic Treaty Organisation (NATO). Given Iceland's strategic location and the intensity of the Cold War during those years this could simply not be allowed to happen.³⁶ The freedom to fish is an important element of freedom of the seas. However, powerful fishing fleets are exploiting the open oceans and pushing the legal envelope to protect their actions.

With depleting fish stocks leading powerful fishing fleets further seawards, the problem of IUU fishing – a term first used in 1997 to include poaching in sovereign waters and unreported high seas fishing – is directly impacting the livelihood of large coastal communities across the world. Small and poor countries that lack the capacity to surveil their EEZ effectively are the worst affected. In fact, IUU fishing has been flagged as an area of concern across most multilateral maritime security organisations. It requires a cooperative capacity-building approach with a robust legal framework, effective governance and a regional support architecture backed by UNCLOS driven regulation to ensure non-military dispute resolution. In 2018, more than 90 million tonnes of fish was harvested by the industry, with about 4.6 million vessels engaged in fishing, and the sector generated employment for more than 39 million people.³⁷ As per the Food and Agriculture Organization (FAO), IUU fishing accounts for 10–19 per cent of the global catch.³⁸ Unchecked fishing has led to over 65 per cent of high seas fish stock either depleted or at high risk of collapse.³⁹ It is estimated that the annual economic loss to coastal states from IUU fishing is about US\$ 50 billion.⁴⁰

Control of sovereign waters

IUU fishing is just one of many challenges faced by countries in securing their 200 nautical mile EEZ around their coastline. It is a substantial oceanic space for seamless monitoring and surveillance even for large countries. Modern surveillance technologies through satellites and autonomous platforms have alleviated this limitation to a considerable extent. The compulsory installation of Automatic Identification System (AIS) transponders on all vessels of more than 300 tonnes and/or 20 metres (m) in length has strengthened the regulatory regime as each vessel can now be tracked with its unique number. However, “dark ship” activities continue. Ships and fishing vessels switch off their AIS transponders for limited periods when indulging in clandestine/illegal activity like encroaching on another country's EEZ to poach for fish. This is not yet a significant threat but cannot be ignored.

Status of the EEZ

An ambiguity in UNCLOS about the status of the EEZ as territorial waters or the open sea has led states to interpret it differently with differences arising primarily over access to foreign military vessels. For example, India does not allow foreign military vessels or research vessels to operate in its EEZ without permission. China's dichotomous position on this is also well known. Countries with offshore islands or bays have included large

open ocean spaces into their internal waters such as China's claim on the North-west Passage. China has also stated that external research vessels require permission for research activities but believes that its own vessels should be routinely permitted. Seeking prior information for research vessels is necessitated by security concerns of "research" being a euphemism for "spying". These vessels can map the hydrographic contours of an area of interest towards enhancing their maritime and underwater domain awareness (MDA and UDA) which could greatly benefit their submarine operation.

Seabed mining

Deep-sea mining for the extraction of mineral resources from the seabed in depths greater than 200 m which comprises 65 per cent of the oceans is going to be the next threat to the maritime habitat besides becoming a maritime security challenge. The turn towards the sea is inevitable with the rapid depletion of resources on land and the insatiable requirement of these to sustain humankind and feed the technologies of the present and the future. This is another controversial area and one of the main reasons for the US's initial reluctance to ratify UNCLOS. The ISA has been empowered to allocate up to 150,000 sq miles of open ocean for seabed mining and by May 2018, it had issued 29 contracts.⁴¹ It is understood that more than 1.5 million sq kilometres (km) of international seabed in the Pacific and Indian Oceans and the Mid-Atlantic Ridge have been earmarked for this. India has been one of the beneficiaries; it was accorded a Pioneer Investor Status in 1987 and seabed mining rights in the Central Indian Ocean.⁴² Deep-sea mining is yet to pick up pace but when it does in a few years from now, it could spill over from these demarcated areas and even lead to unregulated exploitation and encroachment in sovereign EEZs.

International straits

Unlike territorial waters, all vessels and aircraft have the right to transit through recognised international straits, including dived transit by submarines, so long as these do not threaten the bordering coastal state. This clause addresses the concern of major maritime powers with "far seas" deployments for their normal global operations. However, there are security implications as transiting through these narrow straits restricts the freedom of movement of naval vessels and submarines thus providing a strategic advantage to those countries that straddle the approaches to these restricted waters. China considers its "Malacca Dilemma" a strategic vulnerability and to mitigate this, it is making huge investments to connect its mainland directly to the Indian Ocean through Pakistan and Myanmar. The Iranian Navy frequently harasses US warships in the Straits of Hormuz.⁴³ This is a serious concern as such provocation could lead to a dangerous escalation as an unintended consequence. This has led to initiatives such as the Code for Unplanned Encounters at Sea (CUES), which was adopted in 2014 by all 21 members of the Western Pacific Naval Symposium (WPNS) and pertains to the western Pacific. Even though it does not address this particular aspect of transit through narrow straits, it is a useful cooperative mechanism to avoid unprovoked confrontation.⁴⁴ Similar initiatives are also being discussed in other forums like the Indian Ocean Naval Symposium and at various other track 1.5 interactions on maritime security in various parts of the world.

Archipelagic states

The maritime boundaries of the archipelagic states have been comprehensively described in Articles 47 and 49 of UNCLOS⁴⁵ and several countries have benefited from the spread of their islands over a large sea area. However, this has given rise to various security challenges as many of these countries are unable to effectively police such large areas, thus becoming vulnerable to all manner of illegal activity at sea which could have implications extending far beyond their maritime boundaries.

An objective analysis of UNCLOS would therefore suggest that it has satisfactorily addressed most of the issues that could be of major concern. However, differences between states continue to arise, mainly because of interpretation, intimidation, inadequate regulation and bilateral issues that affect the regional dynamic and give rise to larger security concerns. It is understood that a major negotiation is underway at the UN that will address some of these concerns and both, expand and improve the governance architecture for better management of the oceans.⁴⁶

Interpretation of UNCLOS – Freedom of Navigation Operations

In 1979, the US administration initiated “Freedom of Navigation Operations” (FONOPs) insisting that a country’s military vessels had the right to operate within another’s EEZ and could take innocent passage within the 12-mile territorial water limit.⁴⁷ Since then the US Navy has been undertaking FONOPs across the world but these have now taken on a more aggressive connotation in the South China Sea. The US conducts frequent FONOPs in the disputed waters of the region as a constant reminder to China of its commitment to a FOIP in the wake of China’s territorial claims in the region. China views it as an unnecessary provocation and challenges its legitimacy. This frequent brinkmanship has, at times, assumed dangerous proportions with confrontation a distinct possibility.

In April 2021, in a move that surprised many, the US Navy announced that the *USS John Paul Jones* had undertaken a FONOP within India’s EEZ on its western seaboard. The Government of India raised an objection in accordance with its own maritime law, which requires foreign warships to keep India informed, while the US insisted that its actions were “consistent with international law”. However, it finally turned out that this was not the first time the US Navy had done so and the issue was put on the backburner.⁴⁸

Blockades and exclusion zones

Another potential challenge to the freedom of the high seas, as defined in UNCLOS, is trade warfare in an impending maritime military confrontation. Trade warfare was a very successful strategy during the two World Wars and shaped the course of both conflicts. However, in the contemporary maritime environment, with globalisation and connectivity underpinning the complexity of the international trading system, disruption of trade due to armed provocation has global implications without necessarily achieving the desired effect. There have been many instances in the recent past where countries have established Maritime Exclusion Zones (MEZ) to deter other navies

entering the area or to shape the battlespace to their advantage. The UK had established an MEZ in the South Atlantic during the Falklands conflict in 1982, and later revised it to a Total Exclusion Zone (TEZ).⁴⁹ In the current Russia-Ukraine conflict, Russia has declared an MEZ in the Sea of Azov and the Black Sea. As per common understanding, civilian ships and aircraft are exempt from the strictures placed on military platforms entering the zone but they could become victims of collateral damage and so there is an implicit warning for them to stay clear of a conflict zone.⁵⁰ Exclusion zones are indeed an effective tool for economic blockade. They can effectively sever a nation's supply lines and block access to international trade for a restricted period of time thereby degrading the enemy's economic and war fighting capability and perhaps achieving the desired result without firing a shot.

Maritime cooperation

Maritime cooperation amongst states is an intrinsic necessity for effective maritime governance. UNCLOS has helped establish a framework for dispute resolution with its provisions providing a baseline for establishing convergences on shared concerns and an enabling environment for detailed negotiation on bilateral and multilateral divergences in the maritime space.

Global maritime governance is centred around the London based IMO, a specialised agency of the UN responsible for the safety and security of shipping and the prevention of marine and atmospheric pollution by ships with a membership of 175 countries. The IMO was not only closely involved in addressing Somalian piracy but it also encouraged the creation of an International Maritime Bureau to tackle piracy and other criminal acts at sea. By the 1980s it had further refined its mission statement to promoting "safer shipping on cleaner oceans" and has helped facilitate limits on air pollution from oceangoing ships.

An effective cooperative effort to address the multitude of maritime security challenges is needed more than ever as the growing geopolitical tensions around the globe will have major implications on the conduct of nations at sea. Contestation on the high seas is an inevitability in the future with the Indo-Pacific and the Arctic region being the most likely to witness intense competition for resources and control over important SLOCs.

In the aftermath of the Cold War, a rare thaw in relations with Russia after the dissolution of the Soviet Union led to the formation of the "Arctic Council" on September 19, 1996 as an "international forum" for cooperation on common regional issues related to environmental protection and sustainable development.⁵¹ This was a positive addition to ocean multilateralism. As the Arctic shipping routes led to increase in maritime traffic, it also led to further multilateral regulation. In 2014, the IMO began work on the "International Code for Ships Operating in Polar waters" (known as the Polar Code) that came into force on January 1, 2017.⁵² It was developed in conjunction with the regional countries towards promoting the safety and security of international shipping in the harsh weather, challenging environmental conditions and unique eco-systems prevailing in the Arctic and the Antarctic. Indeed, the unique nature of the likely challenges has led the Polar Code to cover almost all aspects related to marine operations and navigation including ship design and construction, training and operations, specialised equipment,

search and rescue (SAR), etc. This code provides an effective mechanism to ensure uniformity in areas unique to that region. However, the proliferation of maritime traffic with the melting of the polar ice caps is likely to give rise to regulatory challenges in the future that will need timely action.

An interesting departure from the concept of open seas was the UNSC resolution authorising foreign naval forces to “enter the territorial waters of Somalia for the purpose of repressing acts of piracy and armed robbery at sea” (UNSC Resolution 1816 of June 2, 2008).⁵³ It was considered necessary to tackle the menace of piracy that an ineffective, failed government in Somalia was unable to do. This set a precedent that a coastal state’s rights could be taken from them, and also indicated that if the UNSC was in agreement, it could modify or suspend longtime legal doctrines. Similarly, in October 2015, the UNSC passed a resolution (2240, dated October 9, 2015) on the migration crisis, allowing countries the right to search and stop unflagged vessels suspected of smuggling migrants in the Mediterranean;⁵⁴ it extended this to include even flagged vessels with the permission of the flag state. These UNSC resolutions introduced a new dimension to the international management of high seas traffic amidst apprehensions of intrusive maritime governance, despite assurances that this was done due to exceptional circumstances. The criticism aside, these measures, in conjunction with a cooperative and coordinated approach by the global maritime community have gone a long way in curbing the menace.

Climate change

Non-traditional threats are the more recent challenges to the safety, security and well-being of the maritime domain. Climate change is perhaps the single greatest threat to humankind. Its effects are already being felt in the maritime domain with rising sea levels and the consequences of global warming posing an existential threat to sensitive marine eco-system, coastal communities and many small island states which are faced with the threat of inundation.

Global warming and the marine environment

Over 90 per cent of the excess heat due to greenhouse gases (GHG) has already been absorbed by the oceans.⁵⁵ Warmer water leads to displacement of species seeking cooler environments, increased stratification and acidification of the seas and consequent dissolution of organisms, all of which is further aggravated by the human interaction through fishing, mining, marine tourism, littering, etc. This added stress on the oceans will have an impact on the global economy, coastal populations and will further add to the maritime security challenges. Despite it being one of the 17 Sustainable Development Goals (SDG)⁵⁶, the larger and more developed states are paying less attention to the importance of sustainable exploitation of the oceans, the adverse effects of global warming, and the impending crisis that will follow than the Small Island Developing States (SIDS), for many of whom their very existence is threatened.

One of the two possible reasons put forward for the relative lack of attention being paid to the oceans is the difficulty in justifying the allocation of resources for activities beyond national boundaries. The second is that environmental agencies rather than those responsible for the oceans have led most climate change initiatives. However,

that hardly justifies this lackadaisical approach. The SDGs require a comprehensive all-of-nation approach if these are meant to be achieved by 2030, which at present seems very unlikely.

From an UNCLOS perspective, global warming and the rise of sea levels will impact existing baselines and lead to the alteration of the maritime limits from the territorial sea to the EEZ which will give rise to a new set of difficulties on demarcating fresh boundaries. The Intergovernmental Panel on Climate Change (IPCC) in its fifth assessment had predicted a worst-case rise of 1.1 m in the mean sea levels by 2100. However, most experts believe that this an overly conservative estimate and could, in fact be nearer a level of about 2 m.⁵⁷ Besides the impact of this on the marine eco-system, it will result in shrinking the landmass and maritime limits exercised by states. It will also change the characteristics and classification of small land features as defined in UNCLOS (Article 121), and will inevitably lead to maritime tensions as states find themselves deprived of the bounty that the oceans offer. Similarly, this will also impact archipelagic (Article 47) and island states.

While the marine environment is covered as SDG 14 (Life below water) with 10 targets, it is also impacted by many of the other 16 SDGs and 159 targets⁵⁸ and is therefore not the responsibility of the maritime agencies only. It may therefore be worthwhile to examine whether the Paris Agreement can benefit from UNCLOS, and vice versa, towards enacting regulations to prevent unchecked degradation of the maritime space.

Shipping

Shipping is still the cleanest, quickest and most economical means of transportation. However, the large number of vessels plying on the seas also contribute to GHG emissions, which can be mitigated through regulation. Shipping must do its fair bit for the conservation of the oceans towards meeting this long-term goal. Studies conducted by the IMO show that by 2050, even with enhanced energy efficiency, emissions from shipping could increase by 50 per cent to 250 per cent if action to control this is not initiated.⁵⁹ For this, the IMO has developed an interim strategy (2018-2023) and a long-term strategy which will commence in 2023.⁶⁰

There is a considerable effort being made to address GHG emissions and marine pollution. A multi-layered legal and regulatory framework, the institutional backing of the IMO and the industry itself making a willing effort to comply bodes well for the future. An oversight mechanism like MARPOL Annex VI⁶¹, which can be adapted to address the prevailing situation can provide the guidance. However, there is a possibility that economic and political constraints of nations and their competing requirements could lead to dilution with the bar being set rather low. UNCLOS provides the basis for addressing issues related to marine pollution in Article 1 (Definition) and Part XII (Protection and Preservation of the Marine Environment) in conjunction with articles related to pollution from land etc. It offers the framework to develop legislative and regulatory provisions to address the larger issues related to the effects of climate change in the maritime domain.

Regional cooperation as a way forward

It is evident that protection of the maritime domain from the entire spectrum of challenges requires a concerted cooperative approach with the larger issues of global

sustenance taking priority over narrow parochial and inward-looking nationalist concerns. This is exacerbated by hegemonistic tendencies, a disdain for existing conventions and a belligerent approach towards disrupting the existing rules-based order. Most multi-lateral and regional institutional frameworks across the globe now include maritime security in their agenda. In the Indian Ocean region itself, the Indian Ocean Rim Association (IORA) has included maritime security in its seven objectives. Similarly, the Asian Regional Forum (ARF), the ASEAN Defence Ministers Meeting Plus (ADMM+), Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC), and a host of other such institutional mechanisms in other regions of the world are also committed to ensuring a safe marine environment. Similarly, ensuring a rules-based international order and an FOIP is the underlying objective of the Quad with its initiatives focused on building resilience and capacity in the region across multiple domains. Even though the Quad is only an informal grouping of four nations with shared values, it is supported in its efforts by many other like-minded regional and extra-regional powers. Such cooperative regional formal and informal arrangements exist across the globe and should be strengthened by effective legislation and adequate constabulary capability. The global shift towards multilateralism and multi-polarity also provides an effective checks-and-balances system

India has been at the forefront in advancing cooperative and inclusive capacity building in the Indo-Pacific region. Its “Security and Growth for All in the Region” (SAGAR) doctrine, enunciated in 2015, is aimed at developing a resilient framework towards addressing the regional security challenges with sustainable development and Blue Economy initiatives and providing a comprehensive maritime-centric regional security architecture. It also includes developing a robust maritime domain awareness capability based on effective multi-dimensional surveillance and an effective information sharing mechanism.

Another recent initiative by the country is the Indo-Pacific Oceans Initiative (IPOI) which was proposed by India at the East Asia Summit in November 2019.⁶² This was followed by India hosting the Fourth East Asia Summit on Maritime Security Cooperation at Chennai on February 6-7, 2020. The IPOI’s seven objectives aim to bring the region together on a host of maritime related issues related to maritime security, the marine environment and multi-sectoral capacity building.

These are just a few illustrative examples to emphasise the importance of a cooperative and inclusive approach towards enhancing multi-sectoral maritime security. While these pertain to the Indo-Pacific, other regions are also working towards achieving a well-regulated marine environment with all stakeholders doing their bit to protect and secure the oceans.

Conclusion

The freedom of the seas can be either the single most unifying factor or the greatest disruptor in global affairs. Powerful maritime forces have always used the seas to further their own interests whether in pursuit of flag or trade. This is unlikely to change in the future but their dominating presence and inherent ability to shape the outcomes should be used to advantage for creating a safer and sustainable maritime environment for the future of humankind. UNCLOS, often referred to as the constitution of the oceans, provides a normative framework for international legal governance of the

oceans.⁶³ It has been fairly effective in providing the basis for developing regional strategies and responses to emerging maritime security challenges and bids by states to alter the status quo. On occasions, these attempts have bordered on the ridiculous, such as Russia planting its flag on the seabed in the Arctic in 2007 and more recently, China's "historical" maritime claims on large parts of the Western Pacific and its features. However, these should not be dismissed outright as these usually harbour a latent and sinister intent. Had China's reclamation activities in the South China Sea been nipped in the bud in the last two decades, its brazenness in the region may have been curbed.

The challenge to the maritime domain is going to intensify as nations turn increasingly to the sea for their sustenance. Contestation and cooperation in this domain will often be at conflict. Brinkmanship by navies and other maritime forces could lead to unintended consequences and unwarranted escalation. To ensure peaceful resolution and a cooperative approach, UNCLOS and its related legal and regulatory mechanisms will have to be agile and robust to provide the basis for cooperative regional mechanisms to be effective.

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Notes on contributor

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