DEFINING MARITIME SECURITY, TYPOLOGIES OF NON-TRADITIONAL MARITIME SECURITY THREATS

Author: Shivam Kumar Pandey
(Research Scholar, Rashtriya Raksha University)
Co-Author: Dr. Ashi Rooth Stuart
(Assistant Professor, St. John's College, Dr. Bhimrao Ambedkar University, Agra)

Abstract

The phrase "maritime security" is commonly used to describe internal and external vessel security. Terrorism, theft, piracy, and illicit people and commodities trafficking, pollution, and Illegal fishing practices are a some of the risks that ships and maritime operations need to be defended against. The marine sector works to lessen risks to marine security, both deliberate and inadvertent, by proactive processes, inspection, and oversight. Furthermore, as the marine business expands and the industry changes, training, enforcement, and vigilance must stay current with growth and technological advancements threat opportunities. Since 9/11, defending the marine sector against similar risks, such as terrorism has received more attention dangers, both at sea and in ports. Numerous domestic and global groups have been founded to aid in the development of policies aimed at enhancing maritime safety. Considering the importance of the maritime sector and the challenge of vetting the massive amount of goods that enter the country, it is essential to take all necessary action to minimise malicious misuse of power. Since the crew as a whole is responsible for ensuring security, it is crucial that businesses train and educate their employees to make it more likely that their vessels will avoid security concerns. Vessel safety officials are not the only ones in charge of security.

Keywords: Maritime security, Typologies of non-traditional maritime security threats

INTRODUCTION

Marine security pertains to the tactics and policies put in place to safeguard ports, ships, and marine infrastructure against potential dangers. It includes a variety of actions meant to protect marine resources, guarantee trade routes are safe and secure, and stop illegal activity at sea. To address issues and vulnerabilities in the marine sector, cooperation between governments, international organisations, and stakeholders in the maritime industry is necessary. Maritime security encourages safe passage, trade, and preservation of the environment on waterways worldwide.

Maritime security refers to both national security as well as the defence of the nation's lakes and oceans. There are many offences that need to be rectified near the water these days. These are the most current issues that have an impact on international relations between nations. Strong security measures are required in this location. This region has grown to be one of the global hubs for energy and trade. Numerous historical and contemporary safety and security issues, including drug trafficking, terrorism, robberies, illicit wildlife trade, illegal arms trade, fishing, climate change, and more, plague the region surrounding the Indian Ocean.

Consequently, it is necessary to safeguard the Indian Ocean's security from the increasing crime rate, and stringent legislation ought to be implemented in this field. Additionally, India has observed similar problems and has to create marine legislation to properly regulate them.

The foundation of the contemporary maritime blue economy security, which also bolsters blue growth programmes. Technological developments international groups and states have paved the road for multilateral collaboration in marine capture fisheries progress during the past 70 years. The path for economic expansion in marine areas globally, promoting market diversity and easing customer comfort. Horrible images of aggression amongst users of marine space occasionally appear on social platforms, giving viewers a peek of the savagery in these otherwise hidden incidents. Fishing conflicts have major repercussions, just like any other conflicts.[1]

Fisheries disputes, like other disputes, have detrimental effects on commerce and economic expansion, mutual trust between nations, environmental protection, food security, and means of subsistence. They also pose a severe threat to national security and sustainability. Interactions that are conflictual have more detrimental effects on the prosperity and efficiency of fishing operations for coastal communities worldwide, particularly in the global south. From a criminological perspective, the effects are likewise astounding. Using a cautious technique, Devlin and colleagues found that as a direct result of fishery disputes, in the Horn of Africa, there were 406 fatalities, 496 injuries, 15 sexual assaults, and 1,549 kidnappings. between 1990 and 2017. In the same way, a recent Associated Press review discovered that in the previous five years, 850 foreign vessels had been confiscated in 360 instances of violent confrontations between fishing boats that the State supported.[2]

 Notwithstanding their ramifications, there is still much to learn about conflicts in fisheries. According to Bavinck, a contributing factor in the problem is that these disputes "are embedded in different normative perspectives, social realities, and economic concerns."[3] This means that the causes of breakouts are closely linked to external factors, resulting in a volatile combination of factors that obscure the truth about what really caused a single conflictual event. Their existence outside the jurisdiction of any one legal system makes their administration even more complex from a regulatory standpoint, even though they take place at the intersection of international supply networks for seafood, commercial   routes,   and   marine   security. Moreover, conflicts can arise between states or between sub-state actors that function through State-to-State dynamics and so "threaten more classic state-based safety.[4]

HISTORICAL BACKGROUND

The development of marine security coincided with the growth of sea trade, exploration, and the strategic significance of naval force across several centuries. The necessity to defend marine interests, provide secure navigation, and fend off dangers at sea has influenced its growth. A greater focus on marine security has resulted from more recent occurrences, such the devastating explosion that occurred in the port of Beirut in 2020, the terrorist threats that followed the September 11 attacks in 2001, and others. This covers port security as well as keeping an eye on shipping to spot possible terrorist activity.

To improve marine security worldwide, organisations like the International marine Organisation (IMO) have created several protocols, such as the International Ship and Port Facility Security (ISPS) Code. Utilising technology, such as

---

[1] Shankar Sswani, Xavier Asurto, Sebastian Ferse, Marian Glaser, Lisa Campbell, Joshua E Cinner, Tracey Dalton, Lekelia D. Jenkins, Marc L. Miller, Richard Pollnac, Ismael Vaccaro, Patrick Christie, 'Marine resource management and conservation in the Anthropocene' Environmental Conservation 45 (2018) 192–202.

[2] https://www.sciencedirect.com/science/article/pii/S0308597X14003327

[3] Helen Wieffering 'Fights over illegal fishing led to armed conflicts, death' Associated Press (31 March 2022)

[4] https://www.sciencedirect.com/science/article/pii/S0308597X14003327

AI, Unmanned vehicles, AIS, and satellite monitoring are becoming essential components of contemporary marine security plans. Throughout its history, maritime security has consistently adjusted to new threats and technological advancements. These days, it includes a broad range of tasks like stopping piracy and smuggling, identifying deceptive shipping practices (DSPs), and guaranteeing cybersecurity and environmental protection in the maritime industry. The continued significance of the oceans for international trade, communication, and strategic objectives is reflected in the advancement of marine security.

CONCEPTUAL CONNECTIONS: A MATRIX OF MARITIME SECURITY

In semiotic theory, one can understand the definition of a phrase by looking at how it relates to other terms. Idea gets their relational implying from the ways in which they are similar to and different from other words. For example, the word "fish" makes sense since it contrasts with "meat" or "seafood," is related to "water," and is associated with "gills" or "fins." Similar to other ideas, marine security necessitates a grasp of its relationships. Maritime security links to more recently formed concepts, organises a web of connections, and either swaps out for or absorbs earlier, established notions. The blue economy, human resilience, marine safety and sea power are the minimum a variety of factors that must be considered. These concepts all point us in the direction of the many facets of security in the maritime domain. Understanding maritime hazard for a century has given rise to the concepts of sea power and maritime safety, which first appeared about the same time.

Prior to the present conversation about "maritime security," a talk about maritime security included topics including naval combat, the significance of projecting seafaring may and the notion of it. The concept of "sea power," deeply rooted in a conventionalist interpretation defines the country's security as the defence of a state's existence, aims to specify the naval forces' function, and develop tactics for their benefit.[5] Warships' primary function during peacetime is to guard important maritime routes Using communication to encourage commerce and economic expansion.

There are various connections between the concepts of maritime security and sea power. The first is related to the fact that A prominent participant in the realm of maritime safety is the armed forces. Furthermore, debates about sea power touch on the appropriateness of state forces operating in areas other than their own, outside of their territorial seas, and in international waters.[6]

With the primary goal of safeguarding marine professionals as well as the aquatic environment, the idea of "marine safety" deals with the safety of vessels and marine setups. Firstly, building ships and other nautical equipment must be regulated in order to ensure marine safety installations, routinely monitoring their safety procedures and marine education personnel in regulatory adherence. The International Maritime Organisation and its Maritime Safety Committee, it serves as the principal global authority for establishing laws and guidelines, have a tight relationship with marine safety. If search and rescue and the conservation of mariners' and the lives of the travellers were the primary priorities of maritime safety after the Titanic disaster in 1912, they have gradually changed to environmental worries about preventing collisions, mishaps, and the potential environmental damage they may create. The environmental aspect of marine safety has gained prominence due to notable oil spills from the 1970s, several instances such as the 1991 Gulf War oil leak have demonstrated the link between traditional security and environmental concerns. Due to the possibility of including safety concerns, cultural and environmental interests, and marine security. Given that the shipping industry, its employees, and its targets are both possible offenders (by doing crimes related to the sea like the trafficking of people, illegal items, weapons, or by collaborating with actors who use violence) and

---

[5]https://www.icwa.in/show_content.php?lang=1&level=3&ls_id=10959&lid=6965#:~:text=After%20the%2026%2F11%20Mumbai,holds%20potential%20for%20additional%20benefits
0
[6] Ibid

targets (by being targeted by terrorists, pirates, or other criminals), marine safety and maritime security have become more and more intertwined.

Nonetheless, there is a relationship between economic growth and marine security. The oceans have consistently been extremely important financially. The sea is used for the majority of trade, and fishing is a big sector. Global shipping and fishing have expanded to a billions dollar value industry. Furthermore, the financial potential of coastal tourism combined with the economic potential of offshore resources, particularly fossil fuels but also seabed mining, have resulted in a growing re-evaluation of the worth in business terms of the oceans. The goal of the phrases "blue economy" and "blue growth," which were introduced generally endorsed, for instance, in the European Union's Blue Growth Strategy, in the 2012 Rio+20 global conference, is to create sustainable management by connecting and combining the several aspects of the oceans' economic development.

The idea of the "blue economy" is associated with since sustainable management, marine security approaches necessitate not the only one upholding and enforcement of legal requirements but also the management of marine resources, which depends on a secure maritime environment.[7]

The fourth notion that needs to be considered in order to comprehend the semiotic linkages of marine security is human security. These two fundamental aspects food security and coastal residents' resilience are key components of the blue economy. A noteworthy substitute for understanding security in terms of national security is human security, which was first proposed in the 1990s. Originally put forth by the UNDP, the idea aims to put people's needs—rather than states'—at the centre of security considerations. The fundamental elements of human security are access to safe work, food, housing, and sustainable means of subsistence. Since fisheries are an essential a food supply and jobs, especially in the world's Unreported, unregulated, and illicit fishing (IUU) poses a threat to the least developed countries a serious threat to human security.

However, there are numerous maritime aspects to human security, ranging from sailors' safety to coastal residents' vulnerability to broader marine hazards. Notably, it has been determined that the resilience of coastal people has a major role in the establishment of marine dangers and is therefore essential to preventing them. These four ideas are related to one another by maritime security, which may even aim to replace them. According to the semiotic approach, in order to comprehend the meaning that various actors attach to maritime security, we can research the connections they make to those additional ideas.[8]

The way security actors define these relationships and situate risks within them varies greatly. Alliance Maritime Strategy of NATO, for example, argues that these are unique, "high end" objectives and ignores the lower the left-hand corner of the marine security spectrum, focussing instead on problems pertaining to human resilience and the blue economy. The Integrated Maritime Strategy of the African Union focusses on the blue economy, however, and contends that issues related to marine security are important mainly because they impede economic expansion. Beginning in top-right corner, the AU shockingly does not include conventional factors such as state rivalry or interstate conflict in its strategy. Other strategies have close ties, such the maritime security strategies of the UK and the EU to all four ideas and make the case for an all-encompassing strategy that highlights how the problems are connected.

---

[7] Alice D. Ba, Staking claims and making waves in the South China Sea: how troubled are the waters?

[8] https://www.drishtiias.com/daily-updates/daily-news-editorials/india-s-maritime-security-paradigm

DISSECTING DANGERS: THE FRAMEWORK OF SECURITISATION

Studies on constructivist security that have been conducted during the 1990s provide a second framework. Security studies soon realised that a study of the political mechanism used to create threats and bring up topics for the security agenda was required, as a result of the political debates that followed the Cold War about the scope and content of military and security policy. The "securitisation framework" is one of the main frameworks that sprang from this conversation. The framework, which was first put forth by Ole Waever and Barry Buzan, asserts that threat construction processes have a real logic and can thus be examined using a general framework.[9]

According to securitisation, dangers are created by a sequence of assertions that rely on a specific general grammar. This grammar portrays a problem, like piracy, as an existential danger to a certain referent object, like international trade or nation-states. Such assertions are only persuasive should they be made by speakers with the right to talk about security and whether the intended audience finds them credible. Threat creation typically includes recommendations for countermeasures to shield the reference item from the threat. The exceptional and frequently extreme nature of countermeasures is a distinctive feature of security.[10] They could include substantial limitations on legal freedoms or the application of military force comparable to that of a war.

There are two possible lines of inquiry when attempting to comprehend maritime security using the securitisation framework. The first way to answer the question is to look at the securitisation claims made about "the maritime" and how they have been securitised. This begs the question of how and whence came to be the modern perception of the sea and the oceans as places of menace and instability. Considering that the idea of the oceans as a dangerous and unpredictable area dates at least to the Antique Era, writing a genealogy will probably be the result. An examination of this kind paints a broad picture of the how and why "the maritime" is a resource for unrest or a point of mention that has to be safeguarded.

The second track examines in detail how different issues have been packaged together to create the marine agenda for security. The end result is a meticulous Rebuilding the issues on the long list of marine security issues concerns, with special emphasis paid to the issue of who securitises problems for whose audience and the types of reference materials being used.[11] Asking whether reference objects are involved in marine securitisations is particularly illuminating for understanding various (and opposing) political objectives. Which reference items need to be safeguarded against threats to marine security?

Reconstructing how these risks and threats have risen to the top of the different actors' agendas is the aim of a fine-grained securitisation analysis. This will give insight into what each actor believes should be protected and what shouldn't and how to go about doing so. Using this viewpoint will highlight the moments when actors' perceptions of dangers converge and those when they diverge noticeably. Furthermore, the securitisation framework highlights a vital dynamic: Securitisation implies that issues are handled as urgent and high-priority affairs and that, as the literature has

---

[9] Wilde Jaap de Security. A new framework for analysis, Lynne Rienner Publishers, Boulder (1998)

[10] Christian Bueger, Stockbruegger Jan Security communities, alliances and macro-securitization: the practices of counter-piracy governance

Michael J. Struett, Mark T. Nance, Jon D. Carlson (Eds.), Maritime piracy and the construction of global governance, Routledge, London (2013), pp. 99-124

[11] Barry Buzan, Ole Wæver, Wilde Jaap de Security. A new framework for analysis

Lynne Rienner Publishers, Boulder (1998)

shown, more resources are usually given to them. On the one hand, the securitisation of maritime issues is a positive development as it brings attention to these challenges and expands the pool of available resources.[12]

Conversely, securitisation follows a different reasoning that usually demands extreme measures and favours quick responses. Put differently, securitisation does not necessarily produce the greatest or most durable answers. As a result, the conclusion could be making the incorrect investments or favouring extremely expensive temporary solutions (such using military force). This relationship has been demonstrated, for example, When it comes to migration. Perceiving migration as a danger has weakened perceptions of it from an economic or humanitarian standpoint, led to repeated harsh border control actions that disregarded the humanitarian tragedies that illegal movement may imply.

WHAT ROLE DOES MARITIME SECURITY PLAY?

India has more than 7,000 miles of coastline, which leaves it open to dangers from environmental damage, piracy, illegal fishing, terrorism, and smuggling. India must defend against these attacks its offshore and coastal resources, including ports, fishing areas, and oil and gas installations.

With the sea carrying more than 70% of India's trade value and almost 95% of its volume of commerce, the country's economy is heavily dependent on it. The majority of India's energy needs are likewise imported, particularly from the Gulf region. Hence, for the purpose of its economic growth and energy security, India must guarantee the safety and unhindered passage of the Sea Lanes of Communication (SLOCs) throughout the Indian Ocean and other regions. Indian Ocean Region (IOR), home to several cooperating nations, is of strategic relevance to India and friendly nations in addition to a few possible enemies. India invests in the development and security of numerous IOR countries and has historical, cultural, and diasporic linkages with them.

Because there is a marine security significant influence on global stability, economic health, and safety, it is crucial for a number of reasons. Here are several justifications for the importance of maritime security:

i. **Protection of international trade**: a large amount of trade is carried out by sea. Maintaining the global flow of products, which affects economies and livelihoods worldwide, depends on the security of these channels. Maritime security guards shipping lanes against illicit activity that can cause trade disruptions.

ii. **Preventing illicit activities**: marine security plays a vital role in stopping illicit activities like people trafficking, smuggling products, piracy, and illegal fishing. In addition to endangering maritime safety and security, these actions also have wider ramifications for international law.

iii. **National security**: As a line of defence, many countries rely on their maritime borders. For the sake of national security, these places must be kept safe from potential threats and unauthorised access. Maritime security operations assist in identifying, thwarting, and countering such threats prior to their arrival at national boundaries.

iv. **Protecting human life:** A key component of marine security is making sure that fishermen, seafarers, and passengers are safe. For example, when it comes to illegal, unreported, and unregulated (IUU) fishing, this has grown to be a significant issue. marine security operations shield people from piracy, marine mishaps, and other threats by reducing risks and responding to emergencies.

v. **Economic stability**: Global economic stability is facilitated by maritime security, which guards marine trade routes and deters illicit activity. It attempts to guarantee that shipping costs do not increase as a result of terrorism or piracy, keeping trade accessible and cheap for countries all over the world.

---

[12] https://maritimeindia.org/revisiting-sagar-indias-template-for-cooperation-in-the-indian-ocean-region/

WHO TAKES PART IN MAINTAINING MARITIME SECURITY?

Numerous national and international stakeholders are involved in the enforcement of maritime security. Among them are:

i. **Naval forces**: they are crucial in preventing and responding to threats like maritime terrorism, armed robbery, and piracy by carrying out patrols, surveillance, and interdiction operations.

ii. **Coast Guard:** accountable for upholding maritime laws and regulations inside its borders, including smuggling and illicit fishing additionally port security, scouting and saving missions, and vessel inspections.

iii. **Law enforcement organisations**: police departments and specialised groups may be engaged in operations related to marine security, specifically in the fight against illegal trafficking in persons and drugs, among other things and maritime crime.

iv. **Customs and border protection officers**: they carry out examinations, keep an eye on the shipment of merchandise, and stop the weapons, contraband, and illegal commodities being smuggled across ports and maritime borders

v. **International organisations**: member nations can work together to address marine security issues by coordinating, cooperating, and creating capacity through the International marine Organisation (IMO), the United Nations, and regional organisations.

vi. **Private sector**: security personnel are sent out, Shipboard security protocols are implemented, and at port facilities, and government agencies work with private marine security organisations, shipping firms, port operators, and industry groups.

vii. **Organisations that are non-governmental (NGOs):** may contribute to efforts to improve marine safety and security by spreading best practices, increasing awareness, and supporting laws and programs.

DIFFICULTIES IN THE MARINE SECTOR

A. Difficult Security Problems

i. **Unequal Strategies**: A new element to marine security is the application of asymmetrical tactics, as seen in In the South China Sea, China has deployed maritime militias, while in the Black Sea, Ukraine is fighting Russia. This calls for the use of surprising and non-traditional tactics that might not adhere to standard military doctrine.

ii. **Grey-Zone Warfare**: Grey-zone strategies, which fall between traditional and non-traditional approaches, make it difficult to respond effectively since they frequently take advantage of gaps in law and policy. These strategies may involve clandestine operations and deeds that fall short of outright hostilities. For instance, nations such as the USA are violating the SEZ.

iii. **Combat Drones**: Using combat drones gives marine operations a new level of complexity, allowing governments and non-state actors to observe, do reconnaissance, and maybe launch assaults.

iv. **Land Attack Missiles**: Maritime security is directly threatened by the use of land attack missiles at sea. This involves the deployment of missiles that, contrary to conventional wisdom regarding threats from the sea, may target infrastructure on land accessed from maritime platforms.

B. Non-traditional Security Risks

i. **Fishing Without a License**: Illegal fishing poses a concern to maritime security because it can exhaust marine resources and jeopardise the way of life for coastal populations. For instance, Sri Lankan fisherman fishing in Indian waters.

ii. **Natural catastrophes**: Maritime security and emergency response operations are severely hampered by the rising the regularity and intensity of natural catastrophes, like hurricanes and tsunamis, in the maritime domain.

iii. **Marine Pollution**: Plastic waste and oil spills are two examples of pollution that pose environmental and financial risks to the area of the sea.

iv. **Impact of Climate Change**: Less developed states are disproportionately affected by rising sea levels, climate change, and related effects, making them more vulnerable to extreme weather and alterations in the environment.

v. **Theft**: Security personnel in charge must be alert for this reason, to ensure the security of delicate and valuable goods, both at sea and in ports.

vi. **Trespassing**: Trespassing Security officials are responsible for ensuring that no unauthorised When their ship is in port, people board it and tamper with critical equipment. A trespasser may disrupt the rigging of freight and other sensitive equipment, even though the crew members with documentation perform vessel operations correctly. This could have serious implications at sea. Large-scale security measures address possible worldwide hazards, including environmental offences, smuggling, human trafficking, and terrorism, which usually stem from more malevolent activities than isolated incidents.

vii. **Threats from Terrorism:** The variety and avenues available to terrorists have expanded due to contemporary developments in telecommunications and international business logistics. Sometimes, criminals try to utilise marine shipping routes for the transportation of hazardous items and weaponry. Since they are able to move both people and goods to achieve their objectives, terrorists take use of transportation routes, and one of the main targets is the maritime shipping industry.

They try to undermine political, economic, and global security and public safety through the use of the maritime sector. Personnel working in security must be on the lookout for potential terrorist attack routes and exercise caution. Because of the global character of the maritime shipping industry, marine professionals have an obligation should take all logical safety measures to protect their country and vessel from any threats.

viii. **Unauthorised Shipbuilding**: Transnational crime will be made easier to spread as a as a result of expanding maritime commerce and economic globalisation. trade in weapons, narcotics, and The transportation of people is already a major industry, and maritime shipping is essential. International crimes are here to stay, and marine security is essential to reducing their prevalence. Because illicit goods and weapons are kept keeping it out of the hands of thieves, the shipment industry can stop more illicit cargo from entering the country at the source, leading to shipments that do less damage once they reach their destination. It is challenging for inspection by security every one among the numerous massive containers that each shipping vessel is carrying. This is known to criminals, who take advantage of it. Smuggler networks will make an effort to evade law enforcement and the maritime industry due to their scale and reach, which make them an easy target. Smuggling isn't just done by the shipping sector; occasionally, criminals attempt to cross international borders with their commodities by utilising other kinds of vessels.

In the same way that the oceans serve as our main means of transportation for products, they also serve as conduits about the importing and exporting of illicit goods. The many significant drug busts over the years demonstrate how organised and transnational Crime gangs move their goods via the shipping business enormous amounts of their merchandise. They may also carry weapons and other technology used illegally that is extremely valuable in the illicit market with narcotics.

ix. **Piracy:** Although it might seem to be a notion from the past, big ships Even with shipment valued at millions of dollars, ships continue to attract criminal attacks. Modern robbers and pirates are usually well-prepared and have access to state-of-the-art communication technologies. Crew members with a wealth of marine security training and expertise are better equipped to anticipate and manage a piracy attack.

x. **Trafficking in Humans:** Another major problem with international sea security is human trafficking. The maritime industry has traditionally experienced illegal migration, whether it be from individuals escaping unrest in politics or unwilling victims of human trafficking. Although The marine industry is facing difficulties to

capture every undocumented immigrant, using appropriate strategies for maritime security aids in lessening the problem.

xi.   **Security Manoeuvres:** What then do security guards do on a regular basis to make sure problems don't occur? Let's examine some of the top procedures that a VSO, or vessel security officer, follows. It is incumbent upon the officers to properly handle anything on board that does not adhere to the highest security standards.

- **Oversee The Freight Management And Coordination**

When a security guard loads and unloads cargo, they have to make sure that all protocols are followed, including inspecting the bunkers and vessel stocks and doing the necessary checks.

- **Making suggestions for changes**

It is the responsibility of the VSO to recommend any changes to the business security officer's security plan for the ship so that the latter can implement the change throughout the entire organisation to enhance security.

- **Report Issues**

Notifying the business safety officer is the security officer's duty if a vessel audit finds any issues.

- **Examine The Boat On A Regular Basis**

To monitor and enforce security protocols, each officer of security on board needs to be alert for anything out of the ordinary.

- **Manage Upkeep To Enhance Security**

Other crew members have a duty to play in keeping an eye out for anything unusual in addition to the VSO's monitoring duties. It is important to urge staff members to report any possible hazards and remain vigilant by the security guard.

- **Put Security Training Into Practice**

Safety officers are responsible for teaching their crew members acting in a way that is suitable for both regular and emergency security activities.

- **Document And Report Security Incidents**

It is the security officer's duty to observe any strange activity and notify the senior security officer and firm security officer of it.

- **Ensure Screening Programmes**

To enable crew members to do their duties outside restrictions, the VSO must conduct screening programmes including transportation worker identity credential checks.

- **Observe Security Equipment**

The maintenance, testing, calibration, and proper operation of security equipment are the responsibilities of a security guard.

- **Crew Member Supervision And Assistance**

A ship's security officer is responsible for making sure that everyone on board is following the security plan and procedures.

THE FUNDAMENTALS OF MARINE SECURITY

Essentially, maintaining safe and thriving oceans is the main goal of maritime security. In order to preserve stability and wellbeing along international maritime routes, it entails safeguarding ships, ports, and marine environments while abiding by international laws and regulations.

Why is marine security so important to the shipping sector?

Maintaining the sustainability of seas is essential for human civilisations' resilience, security, and prosperity as well as for the biodiversity and well-being of maritime environments. The following list of factors demonstrates the significance of marine security.

- **The health of ecosystems and biodiversity**

Many different marine species and ecosystems, including those that produce oxygen, sequester carbon, and cycle nutrients, can be found in the oceans. Fish larvae to magnificent whales: conserving marine life helps maintain preserves biodiversity and ecosystem health, both of which benefit global fisheries and the travel and tourism sector.

- **Control of the climate**

The seas are essential to controlling the earth's temperature because they absorb 90% of the surplus heat brought on by climate change. Maintaining marine health lowers the hazards of extreme weather, sea level rise, and ocean acidification while also stabilising climatic systems.

- **Financial well-being**

The fishing, maritime shipping, tourism, and resource extraction sectors collectively account for at least 150 million direct jobs globally, making the maritime domain a major driver of global economic activity. It is projected that the global economy is worth between US\$3 and US\$6 trillion, meaning that shipping will double in size by 2030.

The way that marine security has changed over time

The evolution of marine security protocols over time demonstrates the ways in which measures have evolved to preserve the maritime realm. In the past, the main concerns were keeping trade routes safe for ships and safeguarding maritime areas against pirate attacks. States began to bolster their fleets in order to safeguard their rights and ensure the safety of their vessels as trade and transportation increased. Over who controlled certain areas of the sea, there were several battles and confrontations between the states.

The introduction of steam-powered ships and other developments in the marine sector in the 19th and 20th centuries enhanced security and made it possible to move people and products across great oceanic distances more quickly and effectively. It got more and more entwined with geopolitical rivalry, resulting in disputes and strains over resources and   territory   control.
These days, as international trade expands and more goods are moved around, the difficulties get much more complex. These days, maritime security encompasses more than just port and ship protection. It permits fair and secure access for everybody while guaranteeing the health of the waters.

The difficulties of maintaining maritime security

Ensuring the safety of activities conducted in maritime areas requires addressing the difficulties associated with maintaining their security. Maintaining the security of the oceans against dangers including piracy, terrorism, and illegal activity calls for strong strategies that include increased surveillance, international cooperation, and the imposition   of   strict   laws.
Collaboration between nations, governments, organisations, and corporate parties is crucial to addressing this complex potential harm. This entails improving the port's capacity for patrol and surveillance, bolstering cooperation across continents, and encouraging the application of pertinent agreements and legal frameworks. Effective maritime security measures, such as routine inspections and screens to reduce threats, depend on cooperation between port authorities and ship operators.

ORGANISATIONS AND BOARDS FOR MARITIME SECURITY

In   India,   multiple   ministries   or   departments   are   in   charge   of   marine   security.
A number of ministry departments and agencies worked together on it. In India, the maritime domain is handled by four ministries. They are as follows:

1. Defence Ministry

2. Home Affairs Ministry

3. Fisheries Ministry and

4. The Department of Transportation

5. Additional major participants are:

• Foreign Affairs Ministry

• Information Technology and Communication Ministry

A.   Sea Border Protection Forces

Our sea boundaries are guarded by the Indian Coast Guard, Border Security Force (which protects the Rann of Kutch), and Central Industrial Force of Security (CISF). The main ports' security is managed by CISF. State governments, including those of India's island territories with coastal regions, use the agencies listed below:

1) **Forces**: State marine home guards, such as those in Tamil Nadu; State marine police

• Committees for state coastal security

• Committees for district coastal security

2) **Agency intelligence**

• National Institute for Technical Research.

• Wing for Research and Analysis

• Bureau of Intelligence

• Bureau of Narcotics Control

• Revenue Intelligence Directorate

• Defence Intelligence Agency

• Navy Intelligence Directorate

3) **Organisations dedicated to research and development**

• Indian Space Research Establishment

• Organisation for Defence Research and Development

• National Centre of Excellence for Internal Security Technology (NCETIS), Bombay, IIT

4) The Ministry of Home Affairs' Land Ports Authority of India (LPAI)

5) Ministry of Finance, Central Board of Excise & Customs

6) National Maritime and Coastal Security Strengthening Committee (NCSMCS)

7) Planning at the National Marine Police Training Institute (MPTI)

8) Planning for the Central Marine Police Force

B.   Indian Coast Guard

The Indian Coast Guard (ICG) is in charge of keeping territorial and coastal waters secure. The Coast Guard Act officially formed it on August 18, 1978. The Exclusive Economic Zone—do you recall? The ICG is in charge of surveillance over the 2 million square kilometres of India's Exclusive Economic Zone by sea. Additionally, ICG oversees the general cooperation between federal and state entities in issues of coastline security.

C.   Indian Navy

The Indian Navy is another major organisation in charge of maritime security. The idea of guaranteeing secure waters forms the foundation of the Indian Navy's new maritime communication channels like sea. The Indian Maritime Security Strategy is based on two main principles. The first is the increase in threat sources, kinds, and intensities. Secondly, to furnish "freedom to use the seas" to further the interests of India as a nation, it is essential to guarantee that the seas are still safe.

D.   International Ship and Port Facility Security Code (ISPS)

A comprehensive set of rules and principles for the security of ships and port facilities is known as the International Ship and Port Facility Security Code, or ISPS. The International Maritime Organisation develops it. They imposed stringent controls on maritime security and safety following 9/11. The code can be found in the International Maritime Safety Convention (SOLAS). There are 148 signers in total. This code's objective is to create a uniform framework for international ships and ports. Consequently, governments can effectively assess risks and mitigate risks to the security level and implement the code's recommended security measures. Ten small ports are operating under this code as of 2004, when it was adopted in India.

INDIAN-LED PROJECTS

1. SAGAR

To celebrate the island nation's Independence Day, Indian Prime Minister Modi spoke to the National Assembly of Mauritius on March 12, 2015.[13] Curiously, Modi did not address the Mauritius National Assembly on that particular day when he talked about SAGAR. He took this action in honour of the Offshore Patrol Vessel (OPV) Barracuda, an Indian-built vessel now serving the National Coast Guard of Mauritius. In addition to providing logistical support for search and rescue missions, Mauritius would employ this OPV to enforce laws against illegal fishing, drug trafficking, smuggling, and piracy within its vast exclusive economic zone (EEZ). The original was the OPV CGS Barracuda warship ever constructed for export in India, adhering to the particular design specifications of the purchasing nation, in this instance being Mauritius. Garden Reach Ship Builders and Engineers Limited (GRSE), a defence PSU (Public Sector Undertaking) in Kolkata, India, constructed it.[14] The ship's ultimate location, Mauritius, showed The island country's geostrategic significance within the Indian Ocean and marked the start of a new phase in Indian defence sector sales. More than forty littoral republics in the Indian Ocean are home to around 40% of all people on the planet. Two thirds of oil exports worldwide, one-third of global large freight, and half of global traffic in containers all pass via the IOR. Additionally, these seas handle 90% of the energy imports into India and

amount of trade. For these reasons, peace and security in the Ocean of India are essential to both financial prosperity and social harmony of the majority of countries worldwide, including India.

The abbreviation SAGAR, which translates to "sea" in Hindi and stands for "security and growth for all in the region," is India's outlook for the region of the Indian Ocean. In line with this vision, India would take all necessary precautions to protect its islands and mainland as well as its objectives. Additionally, India will endeavour to guarantee a stable, safe, and secure IOR.

The Prime Minister did not provide specifics, but it is assumed that these concerns encompass Indian security energy supplies, maritime assets and resources, shipping, fishing, seaborne trade, and Indian nationals employed abroad. India's maritime security is also affected by global instability because of the seamless interconnectedness in the marine sector. SAGAR states that India aims to strengthen relations with its neighbours in the sea on an economic and security level and support the development of their marine security capacities. India would work with them to develop their capacities, construct infrastructure, exchange information, and monitor the coast.[15]

Secondly, India thinks that regional peace can only be achieved by group, cooperative, and collaborative efforts. In this regard, organisations such as the Maldives-India-Sri Lanka trilateral, formed in 2013, and the Indian Ocean Naval Symposium (IONS), a 2008-founded initiative that unites 35 navies in the area, are significant. Such methods bolster countermeasures against natural disasters and actors who are not state actors involved in terrorism, theft, among other offences. India also aspires to a cooperative future and an integrated strategy, which will lead to sustainable growth for the entire area. India believes that in this particular setting, IORA, the Indian Ocean Rim Association, is essential. According to the Indian Prime Minister, the blue wheel or chakra on the country's flag symbolises the promise of the Ocean Economy or Blue Revolution, underscoring the significance and importance of the "Blue Economy" for India. The countries along the coast bear the major accountability for preserving the Indian Ocean's wealth, stability, and peace. This was the final point made by Modi. India participates in capacity building, capability upgrading, economic ties, dialogue, visits, and naval drills with other countries who have vested pursuits throughout the area. India,

---

[13] Ministry of External Affairs, Government of India, Address by Prime Minister to the National Assembly of Mauritius, 12 march 2015, http://mea.gov.in/Speeches-Statements.htm?dtl/24908/Address_by_Prime_Minister_to_the_National_Assembly_of_Mauritius_March_12_2015

[14] https://maritimeindia.org/revisiting-sagar-indias-template-for-cooperation-in-the-indian-ocean-region/

[15] Ibid

according to Prime Minister Modi, is a country that values respect for worldwide marine conventions and guidelines followed by all nations, as well as the amicable settlement of maritime disputes. Therefore, SAGAR was an inclusive vision that prioritised respect for international maritime norms and collaboration in the domains of politics, business, and safety.

2. IONS

The term "Indian Ocean Naval Symposium" (IONS) describes a biannual series of gatherings. The many coastal states around the Indian Ocean get together for these sessions. As part of the sessions, a forum is arranged to promote collaboration with regard to marine security. Other goals include fostering cordial ties between the various member governments and talking about various marine issues in the region. Four sub-regions comprise the 24 member states of the International Organisation of Navigation (IONS): South Asian, West Asian, South-East Asian and Australian, and East African.

Like A security framework for the entire Indian Ocean region is provided by the Western Pacific Naval Symposium and the Indian Ocean Naval Symposium. In order to preserve goodwill among themselves regarding the operations in the Indian Ocean, the member states' navy and maritime security agencies have voluntarily taken up this project. With the initial goal in mind, the Naval Symposium in the Indian Ocean acts as an organisation that additionally facilitates the planning of lectures, essay competitions, and other activities.

Taking into account India's threefold goals for the Indian Ocean area, it has been determined that IONS is an endeavour that is greatly needed:

- to improve and deepen The Indian Ocean's connections with Indian region's coastline states
- to demonstrate the ability of the Indian Navy to leadership in this regard while working
- towards being a company that offers network security
- to realise India's goal of having a steady, law-based marine boundary in the Indian Ocean region

Additionally, the Indian aim to expand its power from the Malaccan Straits to Hormuz can be greatly aided by the IONS. India undoubtedly wants to use the IONS to offset China's influence.

2018's 6th edition of the IONS took place in Tehran, the Iranian capital, from April 22 to April 25. The meeting was attended by the different member states. Nonetheless, there were more states present at this gathering. This edition of the IONS also included participation from the states around the coast of the Caspian Sea. At this event, the Iranian Navy officially assumed the chairmanship of IONS. The International Maritime Organisation (IONS) consists of 32 foreign navies. Of them, eight are observers and the remaining twenty-four are members. There have been seven IONS editions as of 2021. The eighth edition of the meetings, the Indian Ocean Naval Symposium 2022, will took place in Thailand.

MARITIME ZONES

According to the Law of the Sea Convention of 1982, customary international law establishes a baseline from which the contiguous zone and territorial sea, EEZ, and, in certain situations, the measurement of the continental shelf. Nautical charts from NOAA officially show the limits of these areas. The most recent chart edition's boundaries are the ones that matter for an explanation of the Three Nautical Mile Line, the Natural Resource Boundary, and the several maritime zones of the United States. The boundaries of these maritime zones separating coastal States are determined by international accords that countries have signed. Get in touch with the US Department of State for the official explanation of the country's maritime borders.

Baseline

The low-water line along the coast, as shown on large-scale charts officially recognised by the coastal State, is generally considered the typical baseline. Certain situations call for different guidelines when establishing the baseline, including those involving roadsteads, strongly indented coastlines, ports, bays, mouths of rivers, and fringing reefs. The U.S. baselines are the mean of the lower low tides as shown on the largest-scale NOAA nautical charts, in accordance with

these guidelines. Normal baselines in the United States are ambulatory and dynamic, changing with the accretion and erosion of the coastline.

Inside Waters

The waters on the landward side of the baseline, from which the territorial sea's width is determined, are known as internal (or inland) waters. Subject to the right of entrance for vessels in distress, the coastal state has complete sovereignty over its internal waters, just as it would if they were a part of its land area. It is also able to bar foreign flag vessels from entering its internal seas. In internal seas, the right of innocent passage is not applicable. Without the coastal state's consent, ships and planes are not permitted to enter or exceed internal waters. Rivers, harbours, lagoons, some bays and canals, and lakes, including the Great Lakes, are a few examples of internal waters.

Sea Territorial

Any coastal state that is 12 nautical miles (nm) or more seaward from its baselines may claim a territorial sea. The coastal state is sovereign over its sea area, the sky overhead, and the seafloor and subsurface below it. Subject to laws and regulations implemented by the coastal State that are in compliance with the Law of the Sea Convention and other international legal standards pertaining to such passage, foreign-flagged ships enjoy the right of innocent passage while transiting the territorial sea. 1988 saw the US assert its territorial claims over a 12-nm area.

Zone of Contiguousness

Every coastal state may claim a continuous zone that stretches seaward for up to 24 nautical miles from its baselines and is next to or outside of its territorial sea. A coastal State may exercise the control required in its contiguous zone to deter violations of its customs, fiscal, immigration, and sanitary laws and regulations within its territory or territorial sea, as well as to penalise violations of those laws and regulations committed there. Additionally, a coastal state may assume that the removal of historical and archaeological artefacts from the contiguous zone's seabed without that state's permission is illegal in order to curb the trafficking in such items.

The United States declared a continuous zone in 1972 that stretched from three to twelve miles offshore in accordance with the UN Territorial Sea and Contiguous Zone Convention of 1958. President Clinton declared a contiguous zone extending from 12 to 24 nautical miles offshore in 1999 (Presidential Proclamation No. 7219, 64 Fed. Reg. 48701 (Aug. 2, 1999)), in accordance with Article 33 of the Law of the Sea Convention. This was eleven years after President Reagan had expanded the U.S. territorial sea to 12 miles.

Exclusive Economic Zone

Up to 200 nautical miles (or out to a maritime boundary with another coastal State) seaward from its baselines, each coastal state may claim an Exclusive Economic Zone (EEZ) that lies outside and adjacent to its territorial sea. A coastal state has the following rights within its Exclusive Economic Zone (EEZ):

(a) Sovereignty with regard to investigating, using, protecting, and conserving natural resources (living or non-living) of the seabed, subsoil, and super jacent waters;

(b) Jurisdiction as stipulated by international law with regard to the creation and use of artificial islands, installations, and structures; marine scientific research; and the preservation of the environment;

(c) Additional obligations and rights stipulated by international law.

Line of Three Nautical Miles

Because it is still utilised in some federal statutes, the Three Nautical Mile Line—measured from the territorial sea baseline and originally recognised as the outer boundary of the United States territorial sea—remains on NOAA nautical charts. Secretary of State Thomas Jefferson's letter to certain foreign ministers on November 8, 1793, may contain the earliest declaration of the United States' Three Nautical Mile territorial sea. It stated that a provisional territorial sea would be established, extending a "distance of one sea-league or three geographical miles from the sea shores" (cannon shot rule). Also refer to U.S. Department of State Geographic Bulletin No. 3 (Apr. 1965), which reiterates the long-standing stance that the United States' Territorial Sea and many other maritime nations involved with three nautical miles granted for freedom of navigation.

Continental Shelf

The seafloor and subsoil of the submarine areas that extend beyond a coastal state's territorial sea throughout the natural extension of its land territory to the outer edge of the continental margin, or up to 200 nautical miles from its baselines in cases where the outer edge of the continental margin does not extend that far, are considered the state's continental shelf. A maritime boundary with another coastal State may also serve as a limit on the size of the continental shelf.

The outer boundaries of a coastal state's continental shelf are established in compliance with Article 76offsite link of the Law of the Sea Convention when the coastal state's continental margin reaches beyond 200 nm from its baselines. The Extended continental shelf is a term used to describe the area of a coastal state's continental shelf that extends beyond the 200 nm limit. For the purposes of exploration and resource exploitation, as well as other uses mentioned in the Law of the Sea Convention, a coastal State has exclusive jurisdiction and sovereign rights over its continental shelf. Combined with living organisms from sedentary species—that is, organisms that, at harvestable stage, are either immobile on or under the seabed or unable to move except in constant physical contact with the seabed or subsoil—the natural resources of the continental shelf are made up of minerals and other non-living resources found in the seabed and subsoil.

Elevated Waters

All areas of the ocean that are not a part of a state's territorial sea, internal waters, exclusive economic zone, or archipelagic waters are collectively referred to as the high seas.

NAVIGATING LEGAL WATERS: POLICIES AND PROCEDURES

It is critical that both the shipping business and sailors comprehend maritime legislation. This guarantees law-abiding and secure passage over public seas. Their judgements and actions are guided by their knowledge of these frameworks and rules to guarantee conformity at all times.

1. The implications of UNCLOS on maritime security

The legal framework governing the use and management of the seas is established by the United Nations Convention on the Law of the Sea (UNCLOS), an international treaty. UNCLOS is a set of laws and regulations pertaining to marine boundaries, rights of navigation, jurisdiction over oceanic assets, environmental protection, and scientific research. It was adopted in 1982 and came into force in 1994. The accord is regarded as a cornerstone of marine law since it offers an extensive foundation for global regulation of activities pertaining to the ocean. 168 nations have ratified UNCLOS, sometimes known as "The Law of the Sea Convention."

2. The International Maritime Organization's functions

The International marine Organisation, or IMO for short, is essential to advancing environmental preservation, safety, and security in the marine industry. The IMO was created in 1948 as a specialised agency of the UN and is in charge of establishing guidelines and rules for the shipping sector. It reduces hazards and negative effects on the marine environment while ensuring the efficient and seamless flow of global maritime trade.

UNDERWATER DOMAIN AWARENESS

India's broad maritime interests, which span the enormous Indian Ocean Region (IOR), continue to depend on Underwater Domain Awareness (UDA). According to some, UDA is a complex amalgam of tactics, regulations, and technologies intended to monitor everything beneath the surface of the ocean. Significantly, India's marine interests encompass far more than just economic factors; these also include goals for regional stability, environmental sustainability, and national security.

The Indian Ocean is frequently referred to as the "Indian lifeline" since it transports a significant amount of trade and about 80% of the country's petroleum imports, which keeps India anchored in terms of both economic expansion and energy security. Therefore, it is impossible to overstate the significance of UDA in India. A robust UDA framework that takes into account the evolving nature of maritime risks and issues is crucial. By keeping an eye on marine activity in India, UDA enables authorities to identify potential security threats and react quickly to emerging emergencies. India's maritime security environment is evolving as a result of a growing awareness of the significance of its maritime

environment from a strategic standpoint. India understands the need for underwater surveillance capabilities because it has a large coastline and extensive strategic interests in the Indian Ocean.

In light of this, India has made the development and use of Unmanned Underwater Vehicles (UUVs) a key policy. These cutting-edge technologies include Autonomous Underwater Vehicles (AUVs) and Remotely Operated Underwater Vehicles (ROUVs). With their superior sensors and cameras, AUVs and ROUVs enable India to obtain crucial data on submerged activities like ship movements or any possible threat. Additionally, collaborations between public organisations like the Defence Research & Development Organisation (DRDO) and private businesses like Larsen & Toubro (L&T) demonstrate India's coordinated attempts to strengthen its marine security infrastructure. India has demonstrated its dedication to adopting cutting-edge technologies to enhance its underwater defensive capabilities with the advent of UUVs such as MAYA, AMOGH, and ADAMYA. In addition to offering ADAMYA previously unheard-of endurance and operational depth, it is a significant advancement, giving the Indian Navy exceptional versatility in underwater surveillance and the most effective reconnaissance equipment for missions underwater.

An important development in India's marine security architecture is the launch of the Integrated Underwater Harbour Defence and Surveillance System (IUHDSS) at Naval Jetty Port Blair. By protecting important naval installations from potential maritime attacks, this cutting-edge security tool—which can detect, identify, and monitor threats on the surface as well as underwater—improves their safety. India's choice to fit sonobuoys to its MQ-9B Sea Guardian drones is a sign that the country is keeping up with the rapidly evolving marine environment and expanding its surveillance capabilities globally. In order to find submarines and other underwater objects, sonobuoys are essential. India has a vast network of naval bases, dockyards, air stations, underwater listening posts, coastal surveillance radar systems, and forward operating bases that make up its maritime security infrastructure. These are positioned assets give India the ability to monitor any threat coming from the sea and act quickly to provide secure waterways. In addition, India has created laws and rules to control maritime operations and guarantee efficient UDA in the face of infrastructural expansion and technology breakthroughs. The Indian Coast Guard Act of 1978, the Indian Maritime Zones Act of 1976, the Territorial Waters, Continental Shelf, and Exclusive Economic Zone Act are a few of the laws that strengthen India's maritime security architecture by establishing the legal foundation for maritime enforcement and monitoring.

India's commitment to international maritime governance and cooperation is further demonstrated by its observance of certain treaties and agreements. India is a responsible partner in the surrounding seas because of its strong cooperation with other nations to promote maritime awareness, which fosters stability and security in the region.

India's Challenges

India has numerous obstacles in its efforts to improve maritime security by strengthening its UDA capabilities. As India increases its capacity for UDA, it needs resources to conduct surveillance efficiently, including expert personnel, cash, and state-of-the-art equipment. In addition, the job of keeping an eye on such wide maritime borders is difficult given the expansive Exclusive Economic Zone (EEZ) and 7,500 km of coastline. Furthermore, India's present heavy dependence on foreign technology for undersea monitoring equipment raises the possibility of delays and incompatibilities. Additionally, the nation's efforts to maintain maritime security are complicated by geopolitical tensions, as evidenced by the instances in which Chinese submarines have infiltrated the Indian Ocean region. Underwater topography and seasonal monsoons can also complicate monitoring operations, but the effectiveness of collaboration is hampered by a lack of coordination amongst the institutions in charge of maritime security.

Maritime Domain Awareness (MDA) gained significant importance in India's strategic security debate following the 26/11 Mumbai attack. Although the primary goal of maritime diplomacy (MDA) is to guarantee maritime administration for security purposes, there are other possible advantages. Opportunities in environmental management and the blue economy are among them; these support comprehensive and sustainable maritime development.

Despite its potential, UDA is still limited to the ocean's surface because of unique acoustic needs and difficulties associated with tropical conditions. Such advances could be achieved by modelling and simulation (M&S), but they

need experimental validations and resource-intensive digital transformations. Fragmented marine government precludes the success of military maritime strategies.

Prospects for India

India's marine security stance is strengthened and its maritime diplomacy has the opportunity to blossom with the improvement of UDA in maritime security. India's diplomatic objectives depend on enhanced UDA capabilities, as the following points out:

The first benefit of the successful creation of sophisticated UDA systems is an increase in situational awareness, which is essential for comprehending the dynamics of the Indian Ocean region's maritime domain. This knowledge is crucial for promoting fruitful discussions about each nation's maritime zone with neighbours and other external entities. Moreover, proactive management of marine matters and conflict avoidance through early detection of possible threats or accidents underwater are some advantages of cutting-edge UDA technology. India's improved UDA capabilities are also beneficial for improving security alliances at sea with foreign countries. India can foster confidence and collaboration with them to strengthen their naval operations, leading to stronger diplomatic ties and joint solutions to shared maritime issues. Better UDA also promotes increased information exchange among regional and international players in the industry, supporting transparency and initiatives aimed at fostering confidence. Building diplomatic relations and fostering collaboration on common marine interests are the results of exchanging information regarding underwater activities, dangers to the maritime realm, and environmental issues.

India might use improved UDA capabilities to assist safeguard important waterways because it is a significant investor in maritime trade routes. By safeguarding commercial shipping lanes from potential threats, India improves its standing diplomatically and demonstrates its dependability as a maritime player, winning the respect of trading partners. India uses the UDA to monitor and safeguard marine habitats, demonstrating its commitment to sustainable development in the maritime sector and as a steward of the environment. By using this proactive approach, nations can use diplomatic channels to mobilise support from around the world in their battle against marine pollution, the effects of climate change, and biodiversity conservation.

Better UDA also makes it easier for Search and Rescue (SAR) organisations to collaborate and coordinate across agencies more effectively at sea, which enables India to provide neighbouring states with emergency aid during trying times. India's diplomatic ties within the SAR are improved by this goodwill that results from collaborative engagement. Additionally, projects pertaining to ocean governance and scientific collaboration can benefit from India's investments in UDA technology and research. India can collaborate with other countries on joint projects that will advance diplomatic relations and contribute scientific knowledge by pooling data and expertise in underwater exploration and research. India can empower states with the capacity to improve their own marine domain knowledge, fortifying ties and fostering regional security cooperation, by providing assistance to partner nations with skill-building and training programs for their maritime security services.

Finally, India may advocate for a rules-based maritime system in diplomatic circles by abiding by international marine laws and regulations. India displays its commitment to diplomacy with its UDA capabilities, which are capable of overseeing and enforcing adherence to maritime regulations towards the region's security and stability.

TECHNOLOGY TO IMPROVE MONITORING

Maintaining the security of the maritime realm requires the use of current technologies. These techniques, which range from enhanced monitoring to more intelligent data analysis, aid in understanding maritime activities and provide protection against emerging threats.

1) **Awareness of the Maritime Domain (MDA)**

Marine Domain Awareness (MDA) ensures a thorough grasp of marine operations and potential threats through the use of cutting-edge technologies. This idea first appeared in the late 20th century, and in the early 21st century it attracted a lot of interest and development. MDA improves real-time monitoring of marine environments by utilising

data analytics and sophisticated maritime surveillance equipment. By utilising radar, satellite images, and additional sensor technologies, MDA offers priceless insights on maritime activities, environmental circumstances, and suspicious activities.

Sinay is an excellent illustration of real-time maritime environment monitoring (passive acoustics monitoring, water quality, metoceanic conditions, air quality, etc.) with its Solutions.

2) Using artificial intelligence's potential

Across the globe, the incorporation of cutting-edge technologies like artificial intelligence (AI) is completely changing maritime security strategies. marine organisations can improve their capacity to keep an eye on large marine regions and react swiftly to new dangers by employing AI-driven technologies. These cutting-edge programs make it possible to analyse marine data in real-time, giving authorities the ability to spot suspicious activity, recognise possible security threats, and plan prompt interventions. Sinay helps the maritime sector address challenges by utilising data and digital solutions. To help each organisation find solutions, Sinay's experts, for instance, provide advice and workshops that are specifically customised to their needs. They also direct maritime businesses.

They also offer guidance to maritime companies on how to use digital technologies to enhance their operations. Predictive analytics and proactive marine security measures are made possible by AI systems' ability to continuously learn from and react to changing threats through the use of machine learning algorithms. Stakeholders may increase overall maritime operating efficiency, improve decision-making procedures, and optimise resource allocation with AI technology.

3) Patrols in surveillance systems: Their function

Because they provide prompt reactions to possible threats and improve situational awareness, tracking devices are essential to maintaining maritime security. Patrol and surveillance technologies offer extensive coverage of domains, allowing authorities to track vessel movements, identify possibly illegal activity, and enforce compliance with marine regulations. Examples of these technology include radar, satellite photography, and drones. International stakeholders can devise efficacious ways to optimise resource allocation, prioritise response efforts, and minimise maritime security concerns in heterogeneous contexts by investigating the capabilities and limitations of surveillance technologies.

CONFLICTS OVER MARITIME BOUNDARIES

The legal route

Different interpretations of maritime boundary line drawing have been developed by states (Forbes, 1995). The shape of the geographical characteristics of the land from which the maritime boundary is derived (i.e., the direction of the coastal front and the weight given to islands and submarine features) and which portion of the coast is relevant to delimitation are the factors that determine these differences (Bailey 1997; Bateman 2007; Nemeth et al., 2014). These differences also depend on which map projection is used when drawing the boundary. Maritime boundary disputes were widened when states extended their exclusive economic zones (EEZs) to 200 nautical miles in the post-war era (with some states doing so as late as the 1980s and 1990s).

Where state borders overlapped or blended, new conflicts emerged. Additionally, boundary disputes between the maritime zones of "opposing" or "adjacent" coastal governments occurred or grew in importance. The idea of "equidistance" gained prominence as the demand for their delimitation grew. Another driving theme that came up was "equity." Understanding how states resolve their maritime boundary disputes (and the principles that underlie such processes) depends on an understanding of the (legal) conflict that has developed over the previous 50 years between these two concepts. A boundary that is equivalent to the median line at every point along each state's shoreline is said to be equidistance.

According to certain academics, this was formalised in Article 6(2) of the Geneva Convention of 1958 on the Geneva Convention on the Continental Shelf, which requires governments to resolve conflicting claims by using the equidistance principle.

States' perceptions of "relevant" or "special" circumstances differed, nevertheless, because courts focused on them while deciding boundary disputes. A few international rulings have occasionally given weight to security interests and the location of natural resources in addition to coastal length and other geographical factors. This is known as "equity," which is a different concept from "equidistance." However, in decisions over the past few decades, the International Court of Justice (ICJ) has favoured a stringent interpretation of the circumstances that qualify as relevant, emphasising geographical elements in a three-phase process for defining maritime borders, as demonstrated in the 2009 Black Sea Case involving Romania and Ukraine. In relation to the continental shelf and the EEZ, the regulations that resolve the two Although there were initially differences in the types of boundaries, in recent decades they have mostly converged with judicial decisions.

The distinction between the sea and the land

The distinction between land and maritime space is crucial to comprehending the legal procedures described here. In addition to the obvious reality that people cannot easily live in maritime space, there are other significant legal distinctions that affect maritime boundaries. The idea of occupation, which is essential to proving ownership of land, is not as applicable in the sea sphere. In opposition to sovereignty over land-based territory, occupation of the continental shelf itself cannot result in shelf acquisition. With UNCLOS, a clear division between land and sea became evident because rights to the latter are derived from rights to the former.[16]

Because the characteristics of the ocean are so dissimilar from those of A rights-based system that benefits marine governments has been applied to land and maritime space. This growing significance of the ocean in world politics has been made possible by the disentanglement of states' maritime rights from geophysical characteristics. The importance of natural prolongation and the notion that states should take the seabed's characteristics into account when drawing boundaries for maritime space were first highlighted by the North Sea cases of 1969. After UNCLOS was concluded in the early 1980s, governments could now claim rights to the resources within their 200 nautical mile zones without having to demonstrate that the seabed belonged to them.

Furthermore, sovereign rights to resources in the water column or on the seabed—rather than exclusive rights to the entire marine "territory" in question—are what we are talking about when it comes to states and maritime space (aside from the territorial sea). States can only implement environmental rules in their maritime zones and refuse actors access to marine resources, but they cannot deny passage across their EEZs. Thus, we are talking about two distinct types of "rights" granted by states: "Maritime boundaries (apart from those of the territorial sea) separate only sovereign rights with a functional, and thus limited, character, in contrast to land boundaries which separate sovereignties in their entirety."

If both governments have legitimate legal claims to a particular area, then delimitation in the marine domain becomes a matter of "reasonable sacrifice such as would make possible a division of the area of overlap." As in the case of a cooperative fisheries zone or oil and gas resources, joint sharing is also feasible. Remembering the important distinction between complete sovereignty, as described by, for instance, Krasner's (1999) accounts, and sovereign rights (EEZ, continental shelf) is vital.

Today's maritime boundary disputes

The procedures by which states resolve disputes over maritime boundaries are very different from the ideas that direct the design of such limits. States have a number of options for resolving disputes: they can reach an amicable agreement through bilateral talks; they can take the matter to the International Court of Justice (ICJ) or another international tribunal, like the International Tribunal for the Law of the Sea (ITLOS); or they can use third-party arbitration, like the Permanent Court of Arbitration (PCA).

---

[16] Martin N. Murphy, Small boats, weak states, dirty money: piracy and maritime terrorism in the modern world
C Hurst & Co Publishers Ltd. (2010)

If at all possible, settlement routes involving international arbitration are the least desirable of these choices. States are not motivated to file lawsuits before courts and tribunals when there is uncertainty over the result of international adjudication and arbitration. States can choose a creative solution unrestricted by the international laws enforced by courts and tribunals when a dispute is resolved bilaterally. States find it costly to pursue delimitation in this way since litigation is expensive and the maritime domain process frequently necessitates a large amount of scientific evidence. States are allowed to use any method they choose when defining maritime space, as a result of which about 95% of maritime boundaries that have been agreed upon between 1950 and 2020 were reached through negotiations outside the purview of arbitration or adjudication. Studies reveal, however, that even when governments choose for bilateral talks rather than the constraints of international arbitration and adjudication, they still rely on and generally follow the legal principles as outlined by decisions from foreign courts.

NON-TRADITONAL THREATS

Even if stability is still essential to the growth of IOR, the socioeconomic diversity of the area has led to varying perceptions of threat and a lack of shared knowledge. Given that maritime trade security requires both internal and global interests have converged in the marine realm amongst the five fundamental components of the shipping industry: cargo, ports, sailors, ships, and ISLs.[17] Security concerns that arise from land-based socioeconomic causes can extend to the maritime sphere. These violations, combined with the uniform nature of the water, which absolves the high seas of all authority, have enabled the non-traditional security dangers to proliferate widely throughout the Indian water. Natural disasters, terrorism, piracy, drug and people trafficking, and the illicit transportation of weaponry, including WMDs, are a few of these.

Non-traditional security concentrates on non-military threats that share the following traits:

- From their point of genesis to their consequences, the threats are international in character.
- Rather than being explained as the outcome of power struggles or shifts in the distribution of power among nations, they are commonly discussed in political and economic terms.
- Security is threatened by non-traditional security issues include irregular migration and resource scarcity because they lead to social unrest and political instability.
- The delicate natural balance is frequently disturbed by human activity, leading to other dangers like climate change, which have severe repercussions for both states and communities and are frequently hard to undo or repair.
- Since national responses to these challenges are typically inadequate, local, and worldwide collaboration is necessary. Security is no longer only defined by the state (on concerns pertaining to territorial integrity or state sovereignty), but also the people (their survival, welfare, and dignity) on a personal basis and social level.

1. Theft and Armed Robberies

The Indian Ocean's vastness dense trade and lax maritime law enforcement have encouraged piracy, which has expanded dramatically during the last five years in the Malacca Strait, Somali Basin, and Red Sea. Even though the source of this maritime lawlessness is on land, numerous countries have stationed their warships near the coast of Somalia in an attempt to safeguard commercial cargo. As a result, there have been fewer pirate assaults in the previous three years; in 2013, only 15 ships reported assaults off Somalia's coast, down from 237 in 2011. Similarly, there were two instances of hijacking in 2013 compared to 14 in 2012 and 28 in 2011.[18] But during that same time frame, there was a steady rise in pirate incidents in Indonesian waters.

---

[17] Editorial Essay, 'Research agendas for the Indian Ocean Region',.
[18] Website icc-ccs.org, 'ICC International Maritime Bureau: Piracy and Armed Robbery Against Ships Report 2013'.

Three specialised The SNMG 1 and 2 of NATO the EU NAVFOR, along with CTF 15 are the counter-piracy coalition forces that have been in operation since 2008 in an effort to stop pirate away from Somalia's coast. In addition, merchantmen are being separately escorted by warships from South Korea, Japan, China, Russia, and India. Force-providing governments and coalitions employ the mechanism referred to as Shared Awareness and De-confliction (SHADE), which was launched in 2009, to share intelligence and coordinate the deployment of warships in the Globally Acknowledged Transit Corridor (GTC) situated in the Gulf of Aden. 2012 saw the decision by South Korea, Japan, China, and India will coordinate their escort activities in order to maximise the deployment of warships as a result of the SHADE agreement.[19]

Despite the threat, only significant both local and distant players are contributing to counter-piracy operations. The main reasons a pan-region system hasn't emerged are an inadequate capacity for the region and lack of a foundation for regional security. Indian policymakers have rejected multinational engagements when engaging in anti-piracy efforts despite the Indian Navy's (IN) insistence on them because of domestic political concerns. Following considerable pressure and an annual cost of 80 crores for separate escort operations, the authorities eventually consented to India lagging behind South Korea, Japan, and China in coordination.

2. Trafficking in Drugs and Unauthorised Migration

Small arms proliferation, narcoterrorism, and drug trafficking are closely related. Immigration without authorization and covert drug trafficking in and there are signs of political unrest and poor governance all throughout the Indian Ocean. This issue has been exacerbated by uncontrolled vessel movement, containerised maritime commerce, and Flags of Convenience (FoC) shipping.[20] The Golden Triangle (Myanmar, Thailand, and Laos) and the Golden Crescent (Pakistan, Iran, and Afghanistan) are crossed by drug trafficking, which results in money laundering and the funding of gunrunning, insurgency, and terrorism. A further international security risk that exacerbates socio-political instability is human trafficking.[21]

Small arms proliferation since the end of the Cold War, has increased, which puts domestic security in many nations at serious risk. It foreshadows a grave danger to security between and within states by redistributing authority between the state and non-state actors (terrorists, drug dealers, and insurgents). Given the significant scope of these issues in the IOR, collaboration across the regional community is imperative in addressing these formidable challenges to state sovereignty.

3. Globalisation

Populations have more access to the economy thanks to globalisation, which depends solely on the unrestricted flow of international seaborne trade. But terrorists and rogues also take advantage of these openings, employing maritime commerce to smuggle WMD materials into unlawful territories. Even though the main tool in the fight against proliferation may be diplomacy, containment will always be the solution. In IOR, the Initiative for Proliferation Security (PSI), which aims to encourage the intercepting of illicit WMD cargo, has not been subscribed to. In addition to the UN's lack of support, PSI faces two main legal obstacles. First of all, the Law of the Sea restricts the ability to stop, board, and search ships without authorization. Second, because the transportation of materials for illicit WMD purposes is not a crime that is punished internationally, it is difficult to seize them or prosecute the traffickers.[22]

---

[19] Website oceansbeyondpiracy.org, 'Guide to International Efforts to Address Piracy Off the Coast of Activity'.

[20] Anil Kumar Singh, 'India's Security Concerns in the Indian Ocean Region',).

[21] GS Khurana, 'Maritime Security in the Indian Ocean: Convergence Plus Cooperation Equals Resonance',.

[22] Thomas Bowditch, 'Maritime Threats, Risks and Priorities in the IOR: An American Perspective', in 'Security Challenges along the Indian Ocean Littoral: Indian and US Perspectives', (Matrix Publishers, New Delhi, 2011), p 47.

Without intelligence cooperation, There is too much to explore in the Indian Ocean nation to contain any unlawful migration. Although technology has the potential to use to obtain precise Maritime Domain Awareness (MDA), willing nations working together to exchange intelligence and present a single front is more crucial.[23]

4. Natural Disasters

Because of the dense population along the coastal regions, this region experiences severe results from over 60% of natural disasters worldwide. In such cases, relief efforts are platform intense, requiring group involvement and effort.[24]

AN OVERVIEW OF NON-TRADITIONAL SECURITY ISSUES

South Asia

Natural catastrophes have resulted in a series of problems for the South Asian region. For example, in 2004 the Indian Ocean was ravaged by a massive tsunami and earthquakes littoral regions. Cyclone Sidr devastated Bangladesh, Afghanistan, Pakistan, India, and Sri Lanka after making landfall in 2007 was a couple years later. Cyclone Amphan in 2020 caused around 5 million people to be uprooted from their residences in Bhutan, Bangladesh, India, and Myanmar; this was one of the largest natural disaster-related displacements ever recorded. These catastrophes cause significant death tolls as well as financial damages. Insufficient inadequate post-disaster recovery efforts and early warning systems actions frequently exacerbate the effects.

Additionally, lately countries in the area have been addressing an increase of NTS hazards because of the changing climate. Increasing ocean levels, as per the Intergovernmental Panel on Climate Change (IPCC), would have disastrous consequences for the region's low-lying communities. River systems may be seriously threatened by the glacial recession that is currently occurring in the Himalayas, for instance.

Furthermore, Migration due to climate change is becoming more frequent. According to a 2018 World Bank assessment, the effects of climate change will force over 140 million people to leave their home nations by the year 2050. Climate change-related migration affects access to necessities like healthcare and education as well as escalating tensions and inequality. For instance, Bangladesh is now a centre for this issue. Adding to Bangladesh's difficulties is the influx of Myanmar's Rohingya refugees. Out of a million, 860,000 are Rohingyas who have been internally displaced and who are seeking asylum Bangladesh alone is home to refugees from numerous neighbouring countries, as per the United Nations High Commission for Refugees (UNHCR).[25]

Southeast Asia

The illicit drug gang that controls the Golden Triangle, which is thought to rank as the second-biggest drug-producing region in the world and the primary producer of opium, still has its headquarters in Southeast Asia.

According to UN estimates, poppy production has expanded to 60,703 hectares, or 150,000 acres, of land in Myanmar, having tripled since 2006. Even though Myanmar's economy has grown somewhat, development initiatives have not reached the country's periphery, which has allowed industries like poppy growing to flourish. Although the UN has

---

[23] Emma Belcher, 'A Tighter Net: Strengthening the Proliferation Security Initiative', available at URLhttp://lowyinstitute.org/files/pubfiles/Belcher percent2C_A_tighter_net.pdf

[24] PK Ghosh, 'Indian Ocean Naval Symposium: Uniting the Maritime Indian Ocean Region', (Strategic Analysis, Vol. 36, No 3, May-Jun 2012), p 353.

[25] https://sinay.ai/en/key-concept-of-maritime-security

tried to intervene by implementing crop substitution in Laos and Myanmar, the problem of drug trafficking has only become worse quickly, creating difficulties for other countries as well.

For example, Vietnam, which has some of the strictest drug prohibitions in the world, is a centre for the transportation of methamphetamine and heroin. The usage of stimulants similar to amphetamines (ATS), which are trafficked and smuggled from the Golden Triangle's borders, is shifting away from heroin in nations like China, Korea, Japan, and the ASEAN countries.[26]

Southeast Asian nations, particularly Vietnam, Thailand, Indonesia, Myanmar, and the Philippines are facing numerous climate-related hazards, much like their South Asian counterparts. According to UN estimates, Southeast Asia's risk of floods and droughts, for instance, would only rise over the next ten years, resulting in financial losses equivalent to 3% of GDP for Laos, above 1.5% for the Philippines, and 2% for over 1.5 percentage in favour of Cambodia.[27]

Other threats are equally dire: due to overexploitation of palm oil, Indonesia's forest cover has decreased from 65.4% in 1990 to 50.2% in 2013; plastic garbage from China and a few other SEA nations, makes up a significant portion of all the plastic trash in the waters worldwide; additionally, considering their placement inside the Pacific Ring of Fire, nations like Indonesia and the Philippines are constantly at risk of earthquake-related disasters.

Small Island Nations

Small islands continue to have low greenhouse gas (GHG) emissions, but the risks of global warming—particularly sea level rise—to these islands cannot be understated. Natural disasters, unlawful and unsustainable resource extraction, and international crime are among problems faced by these states. Frequently, they lack the means to address the challenges, and as a result, multilateral collaborations would be required.

WORKING TOGETHER ON CONTEMPORARY PLATFORMS FOR NON-TRADITIONAL SECURITY ISSUES

Collaborations aimed at bolstering traditional security are abundant. It is essential to grow completely new structures for cooperation as well as to broaden the purview of current procedures to encompass the mitigation of NTS dangers.

Institutional Framework

a. ASEAN

The regional security system of ASEAN has been continually tested over time by NTS problems. The 1997 Asian financial crisis, the 2002–2003 SARS outbreak, the 2007 avian flu pandemic, and, most recently, the 2020–starting Covid-19 pandemic are a few examples.[28]

To address the diverse issues, ASEAN has established several mechanisms. The ASEAN-wide Agreement on Emergency Response and Disaster Management, for instance, provides the member states with a strong policy foundation to support their combined efforts in lowering the risk of disasters as well as reacting to them. In the meantime, members of the ASEAN Regional Forum (ARF) collaborate to improve peace as well as regional safety

---

[26] Brian Eyler, "Solving Southeast Asia's Drug Problem."

[27] "Vietnam and the Mekong's Synthetic Drug Epidemic."

[28] Dominik Heller, "The Relevance of the ASEAN Regional Forum (ARF) for Regional Security in the Asia-Pacific"

through the evolution of suitable policy. The states can now pursue political alignment and security cooperation thanks to the efforts of the ASEAN Political-Security Community (APSC).

The ASEAN Plan of Action to Combat Human Trafficking, Particularly of Women and Children has detailed action plans that must adhere to both pertinent international responsibilities and the national legislation and regulations of ASEAN members nations. The objective is to tackle shared regional issues among all participating nations. In response to the Covid-19 epidemic, the member states of ASEAN initiated information-sharing and issued a Movement Restriction Order (MRO) at the beginning of 2020.[29]

Additionally, ASEAN collaborates with other nations on various fronts. As an illustration, it established the ASEAN Plus Three (APT) project with South Korea, Japan, and China. The bloc participates in the Disaster Relief Exercise of the ASEAN Regional Forum alongside India.[30] India does, in fact, hope to establish close connections with the Coordinating Centre for ASEAN for Disaster Management Aid to the Humanitarian. India has additionally shown a desire to collaborate alongside ASEAN in the creation of generic pharmaceuticals and medical technology during the Covid-19 outbreak.

b. Blue Dot Network

In 2019, the United States and its supporters launched the Blue Dot Network (BDN) to encourage the growth of infrastructure. Cooperating with nations such as Australia, Japan, and India, the BDN places a strong emphasis on infrastructure projects' sustainability. An infrastructure project that has earned a BDN accreditation is trying to be sustainable. The Blue Dot Marketplace can assist nations in building sustainable infrastructure by highlighting possible effects on disaster preparedness, food security, and wellness. A significant BDN agreement addresses an initiative pertaining to "smart cities" among the ASEAN countries.

c. Association for the Indian Ocean Rim (IORA)

With 23 member states and 10 conversation partners, the Indian Ocean Rim Association (IORA) seeks to promote sustainable development and regional cooperation in the area. The group seeks to address the various conventional and unconventional security and safety issues that the nations in the area face, such as terrorism, human trafficking, illegal immigration, piracy, armed robbery at sea, and the trafficking of drugs and weaponry, and wildlife. Crimes related to the fisheries industry include illegal fishing, damaging ocean health, and misusing marine resources. These problems are made worse by the problems caused by global warming. A schedule for the establishment of the Working Group on Disaster Risk Management (WGDRM) within IORA was established at the inaugural Disaster Risk Expert Group Management of IORA in January 2021. The IORA Guidelines for HADR operations in the Indian Ocean were also finalised by member states. By implementing the suggestion in the IORA Action Plan to establish an ongoing Working Group on Maritime Safety and Security, the IORA should increase collaboration in the fight against non-traditional security issues surrounding the Indian Ocean.

d. BIMSTEC

The BIMSTEC countries—Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka, and Thailand—have determined that combating international crime and terrorism is a critical requirement for both sustainable development and regional peace. 2009 saw the group adopt the "BIMSTEC Convention on Cooperation in Fighting Transnational Organised

---

[29] ASEAN Political-Security Community Blueprint, *ASEAN*, June 2009
[30] *"Forging a strategic 'Gateway': The Bay of Bengal and Andaman Sea"*

Crime, Illicit Drug Trafficking, and International Terrorism." With fifteen articles, the custom serves as a guarantee-boosting tool for participating nations to work together to fight transnational organised criminality, worldwide terrorism, and the illicit trade in narcotics and psychoactive substances, including their precursor chemicals, while adhering to national laws and regulations.

However, unauthorised migration and human trafficking are not included in the pact. The BIMSTEC member states' national security advisers (NSAs) have been meeting annually, but the ratification of the mechanism for cooperation is still pending.[31] After that, the NSAs will devise plans for coordination and collaboration in the areas of security, intelligence, as well as law enforcement. This could facilitate the strengthening of the security system and make real-time information sharing possible. When it comes to disaster management, BIMSTEC can help with strengthening capacity through the sharing of information and technical expertise, standard operating procedure draughting, disaster reaction force creation, and funding allocation.

Forums About Miniatures

a. The Quad

The US, India, Japan, and Australia are the partners in the Quadrilateral Security discussion (often known as the "Quad"), a strategic security discussion aimed at leveraging partner complementarities to promote prosperity in the Indo-Pacific region. Selected ASEAN nations can participate in issue-based cooperation within a larger Quad agenda that addresses collaboration in non-military areas such as infrastructure, quantum computing, artificial intelligence (AI), Covid response, climate change, key technologies and materials, reliable supply chains, and cyber concerns. The Quad is also while constructing a robust framework for disaster relief and Indo-Pacific capacity building. In this network, vaccine diplomacy is important, but there is still more that can be done to address other NTS issues.

b. Trilateral India-Japan-Australia

India, Japan, and Australia may find that the Indo-Pacific region's geostrategic area is ideal for fostering regional cooperation and a rules-based system. The three nations have pledged to supply HADR to one another as well as to their adjacent states. Additionally, India and Japan have collaborated on exercises that centre on HADR operations.[32] Through the exchange of medical supplies in addition to HADR activities for the general growth the Covid-19 epidemic has given the countries of the trilateral a chance to focus on scientific advancement and research capabilities.

Another issue is IUU fishing, which has only gotten worse because of consumer demand and threatens to make these few resources even more scarce. There's also the risk of marine crimes like irregular marine arrivals; forced work; and piracy, trafficking, and smuggling. India, Japan, and Australia, who are all home to sizable fishing communities, ought to cooperate via the IORA and other focused venues like the Indian Ocean Tuna Commission (IOTC) in order to broaden their influence.

METHODS FOR CREATING COOPERATIVE SECURITY BARRIERS TO COOPERATIVE MECHANISMS

The post-war period's developments have increased knowledge of the requirement to

---

[31] Sreeparna Banerjee, "The Rohingya Crisis and its Impact on Bangladesh-Myanmar Relations", Observer Research Foundation, August 26, 2020.

[32] https://sinay.ai/en/key-concept-of-maritime-security

reinterpret what constitutes international security. When combined, the plethora regarding security that is not conventional issues in IOR are far more than any one body could possibly handle. The maritime doctrine of India highlights the transition from traditional fighting to incorporate unconventional dangers in recognition of the difficulties that surround Indian coasts. This underlines IN's benign and constable duties in the Indian Ocean. Even if extra-regional fleets help protect ships from piracy, such extensive deployments could not be financially viable in the future. Therefore, in the short- to medium-term, strong and ongoing coordination amongst important regional entities is required to evolve the IOR's marine security. In order to maintain policy consistency, cooperation would be required.

BLOCKERS OF COLLABORATIVE MECHANISMS

A common agreement to address activities threatening Indian Ocean trade routes is necessary given the reliance on marine trade for long-term economic growth. But before approving a regional cooperative plan, it is necessary to examine some of this particular region's special qualities.

The Indian Ocean is commonly separated into four smaller areas, namely East Africa, the Middle East, South Asia, and Australasia, rather than seeing it as a single regional region.[33] Second, various forms regional power dynamics, sectarianism, internal political turmoil, and governance plague this centre of third-world nations, which are all significant barriers to regional collaboration. Thirdly, pan-region security efforts have been eclipsed by a climate of suspicion and mistrust brought about by standard interstate security concerns. Lastly, non-conventional marine challenges lead to issues involving both players in politics, both state and non-state, the economy, and humanitarianism. It is difficult to conceptualise remedies for the problems of human security and non-traditional transnational security, in contrast to traditional security. These obstruct regional solidarity, as does the heterogeneity of IOR at every turn.

BRINGING COOPERATIVE SECURITY BACK

Cooperation in the economy has brought together governments and citizens for the sake of mutual economic progress, with the advantages manifesting in diverse economic divisions. Political and security issues are then frequently better understood as a result of economic security. Despite globalisation, economic interests, and regional diversity have dominated the discussion of geostrategic issues, uniting sub-regional organisations. Economic commonalities and interdependencies at the sub-regional level have been effectively translated into sub-regional organisations such as ARF, ASEAN, GCC, SAARC, EAC, and ADC. Nonetheless, the majority of these have limited seafaring security charters and are oriented geographically or culturally. The Indian Ocean Rim Association (IORA) and the Indian Ocean Naval Symposium (IONS), two pan-IOR institutions, are notable outliers, though, as their member states are geographically dispersed throughout the region and are also members of one or more subregional associations for commerce. There are six discussion partners, two observers, and twenty member states in the IORA. IONS was an IN project launched in 2008 with the goal of strengthening information exchange between regional navies to confront maritime security threats to the IOR. As of right now, 35 countries are members of this construct. IORA brought together developed, developing, and rising countries for trade, investments, technology, and education across Australia, Africa, and Asia. The group is reviving by adopting a marine regionalism-based collective Indian Ocean security paradigm, following ten years of hibernation. The organisation reiterated its shared a desire for the prosperity, safety, and peace of the entire IOR countries in the Perth Communiqué in November 2013, acknowledging the significance of IONS complementarity.

REDEFINING INDIAN OCEAN GEOPOLITICS

From India's vantage point, the IOR's geopolitics are being redefined by three developments. First, marine security that isn't traditional. The IOR's larger framework is increasingly being used to depict the difficulties in Asian waters.

---

[33] Manoj Gupta, 'Prospects for Regional Cooperation in the Indian Ocean Region'.

Second, the US's position as the IOR's primary security supplier is comparatively waning as it directs its attention towards the Asia-Pacific region. Thirdly, in order to solve maritime concerns, India must form relationships with states that share its interests as its modernization takes shape. IORA has confirmed the initial breakthrough by acknowledging that its participants have an interest in regional security as well. As a result, in order to support IONS, it is lining up with maritime security, safety, and disaster management. Paradoxically, despite its governmental level organisation up to this point, There was no agenda on maritime security adopted by the IORA. However, despite bringing regional navies together to talk about marine security, IONS has not received support from the government. This has continuously prevented IONS from converting operational procedures for marine security agendas. The new background facilitates the establishment of an implementable pan region mechanism and enhances the synergy between IONS and IORA.

According to the 2012 Strategic Guidance for the US DoD, India would provide stability and act as an economic anchor for the area.[34] But India hasn't shown any indication of this intention. India's lack of dedication stems from its anti-multilateralist foreign policy, which is based on sovereignty, non-alignment, and strategic autonomy. Indian officials particularly avoid international military operations even after twenty years of economic multilateralism. In order to become a unified force that unites neighbouring states to mitigate marine threats, India would have to reevaluate its strategy. Preventing any polarisation of the IOR remains India's primary concern, notwithstanding its aspirations to become a central player in regional dynamics. India has restricted its actions to bilateral interactions with significant extra-regional powers. Even so, this helps to highlight India's good intentions, as seen by the country's indications that it is reevaluating its approach to military engagement.

The decision to establish trilateral marine cooperation between India, the Maldives, and Sri Lanka and to take part in the multilateral exercise "RIMPAC 2014" in July 2013 provide as evidence of this policy change. India is also moving from moralism to pragmatism by abandoning its long-standing reserve against military operations outside of the UN system.

Given the current force posture of the IN, it is neither practical nor cost-effective to maintain a constant security cover based on numerous bilateral engagements in the IOR, where unconventional threats have spread unchecked. Due to India's vigorous bilateral diplomacy, the navy now only operates in certain time and space zones and maintains a limited presence. When sprinting This programme runs the risk of operating beyond its intended scope due to the IN's current capacity and competence.

CONCLUSION

Maritime security is now popular. It is meaningless in the extreme. Its significance is realised through the performers' attempts to fill it with various topics, relate it to others, and act in its name. Therefore, it is pointless to try to come up with a definition of maritime security that everyone can agree upon. The goal of this article is to provide strategies for handling the concept's multiple voices. In order to disentangle political interests and worldviews and to understand the meaning of maritime security, three methodologies have been developed. These tactics offer a fruitful starting point for researching maritime security and examining the various viewpoints of participants in various contexts.

Therefore, posing the question "What is Maritime Security?" results in a potential study plan that maps out the definition of the term. Such research directly affects national and international policy. They promote understanding amongst actors by making clear when and how they agree and disagree. They make it possible to deal with issues of coordination and to interpret maritime disputes differently, beginning with an examination of the meaning that various actors attribute to the marine as a security domain rather than with the presumed interests of the parties involved.

---

[34] 'Sustaining US Global Leadership: Priorities for the 21st Century Defence'.

Lastly, these investigations will also help define the boundaries of the developing subfield of Maritime Security Studies and stress the cross-disciplinary connections to studies of global governance, economics, development, and the environment.

Maritime security presents a world where threats foster resilience and difficulties welcome creativity. Surveillance and reaction capacities are improved by embracing contemporary technology like MDA and AI, as well as by comprehending regulatory frameworks like UNCLOS and organisations like the IMO. States and stakeholders can maintain protection and reduce dangers for both the present and the future generations by consistently improving monitoring systems and placing a high priority on international collaboration. A comprehensive marine security system includes coastline monitoring in addition to ship and port security, guaranteeing a coordinated effort to protect the maritime area. Safeguarding the marine domain entails more than just keeping people safe; it also requires juggling complexity and directing the planet's essential rivers in an ethical manner.