Maritime Future of the Indian Ocean: Need for a Regional Cooperative Security Architecture

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Abstract

The Indian Ocean Region (IOR) has morphed into the geopolitical epicentre of the 21st century. The shifting global balance of power, evolving traditional and non-traditional security challenges, and a vigorous ensuing arms race are the harbingers of renewed tensions in the Indian Ocean. The IOR is replete with multifarious issues that cannot be rectified or resolved by any single political entity. To ensure stability across the oceanic sphere of the IOR, a coordinated and sustained effort towards cooperation at a regional as well as the international level is the only way forward. Order at sea can be ensured through cooperative mechanisms amongst states driven by their own national interest and stakes in the region.

"The pessimist complains about the wind; the optimist expects it to change; the realist adjusts the sails."[1]

—William Arthur Ward

The world's third largest ocean covering 27 percent[2] of the oceanic sphere has long been dubbed as the *Ratnarka* (the mine of the gems) in Sanskrit language and quite rightly so. The geopolitical and geo-economic significance of the aquatic expanse is unquestionable. The Indian Ocean Region (IOR) contains approximately 40 percent[3] of the world's oil and gas reserves and its adjoining landmass is home to about one-third of the world's population. About 70 percent of the world's oil and 33 percent of global trade traverses through the strategic sea lines of communication of the IOR.[4]

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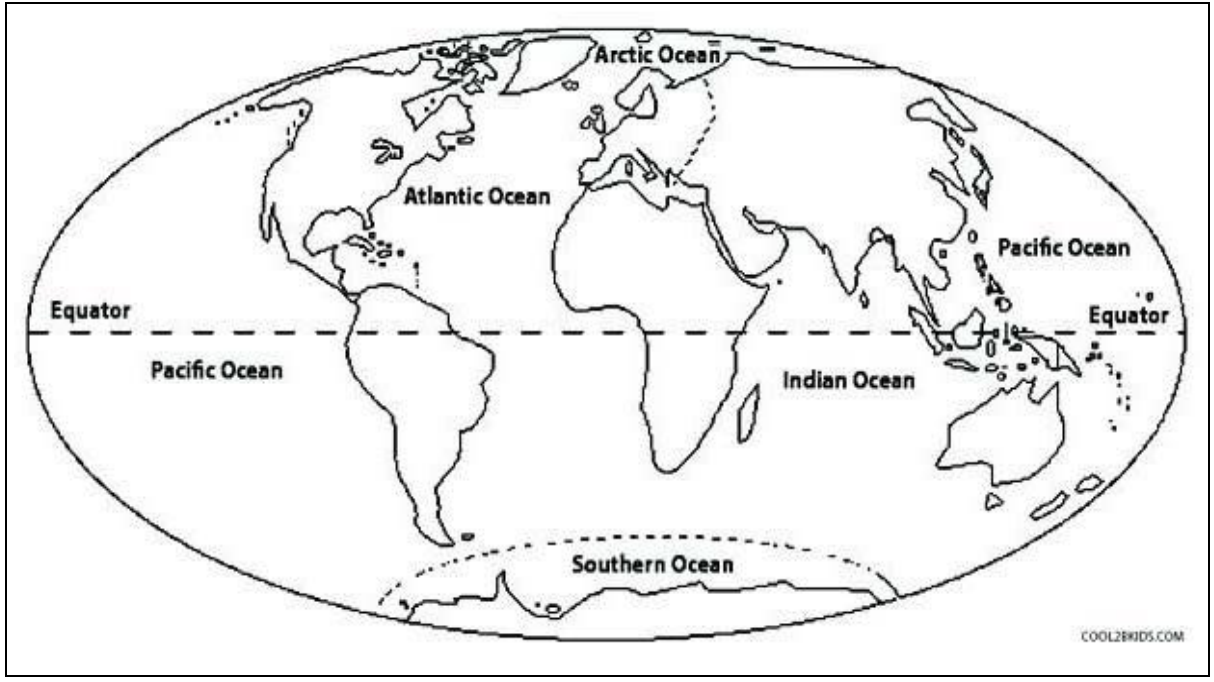
The geography

With an area extending over 70,560,000 square kilometres, the 'bluish yolk' is bounded by the continents of Africa, Asia, and Australia.[5] In comparison to the topographical features of other oceans, the Indian Ocean is a relatively enclosed body of water garlanded by a landmass. As of 2000, the International Hydrographic Organisation (IHO) demarcated a fifth ocean comprising of the southern parts of the Atlantic, Indian, and Pacific oceans. The momentous decision by the IHO has stripped the Indian Ocean of the area to the south of 60 degrees south latitude.[6] Now, the Indian Ocean is enclosed by 36 key states and 20 peripheral states—extending from east to west—and to the south now sprawls the Southern Ocean.[7]

Another striking geographical feature that has garnered a lot of attention towards the waters of the Indian Ocean is the peculiar placement of its chokepoints, such as the Strait of Malacca (Indonesia-Malaysia), the Strait of Hormuz (Iran-Oman), and Bab el-Mandeb (Dijibouti-Yemen). In this regard, the significance of the Indian Ocean cannot be overstated, as it contains vital and crucial sea lanes on which the economic health of the globe invariably depends.[8] The global market relies on the free flow of trade and reliable transport. The disruption or blockage of any of the chokepoints can cause immense problems in energy/trade markets.[9]

Demarcation of world oceans



Source: http://marcolemcke.com/world-coloring-pages/world-coloring-pages-world-map-coloring-pages-for-kids-on-world-coloring-pages-sea-world-colouring-pages/

The coastal configuration

The Indian Ocean is replete with distinguishable coastal configurations, such as barrier islands, deltas, estuaries, salt marshes, mangrove swamps, coral reefs, cliffs, lagoons, beaches, and dunes. The Indian subcontinent houses the most expansive beach area and also contains the largest mangroves forests in the world. The United Nations Educational, Scientific, and Cultural Organisation (UNESCO), in 1987, recognised the significance of the area, thereby, designating it as a World Heritage site. In addition, the IOR is also deemed to be the most tectonically active coast of the world where its mud flats and salty wastes are more than often prone to floods.[10]

The ecosystem

Owing to depleting land resources, the nation states have now diverted their attention towards exploration and exploitation of the oceanic sphere. Coastal and marine environment has the potential to deliver essential goods and services and provide ample supply of minerals, and food/fisheries. It is crucial in regulating hydrological and nutritional flows. It has been estimated that annually the ecosystem of the oceans provides goods and services worth up to $21 trillion, half of which is derived from coastal configurations, such as estuaries and coral reefs.[11] The Indian Ocean is a repository of natural resources, living and non-living.

In 2010, approximately 14.6 percent of the world's total marine catch came from the waters of the Indian Ocean, which reaffirmed the notion that the Indian Ocean has transfigured as a lynchpin of regional and global food security. By the year 2010, the eastern hemisphere of the Indian Ocean had become the second most heavily fished area of the world in terms of metric tonnes of fish caught, i.e., approximately 7 million, closely following the Northeast Atlantic Ocean at approximately 9 million metric tonnes. It has been indicated that swelling population across the littoral states that is projected to rise up to 3.18 billion, adding 690 million to the IOR's 2010 population, will endanger the marine resources if the current trend of over-exploitation continues.[12]

Moreover, multiple human activities pose a grave threat to the resources and functions of the ecosystem of the IOR. Coastal developments for the purposes of aquaculture, extensive construction of

roads and buildings, and modernised urban infrastructure have been largely detrimental to mangroves, coral reefs, wetlands, and other aquatic organisms. Harmful fishing practices—such as shark finning, blast fishing, poison fishing, *muro-ami* (use of encircling net together with pounding devices), push netting, and coral mining for construction of buildings and coral bleaching—have already caused immense devastation. Around two-thirds of the Indian Ocean's 12,070 km of coral reefs and approximately one-fifth of the 3,175 km corals in the inlet waterway of the Indian Ocean and the Red Sea are critically endangered.

Deciphering the maritime past and developing trends in the IOR

Maritime past

Since times immemorial, the IOR has remained a melting pot of civilisations and a fissuring cauldron of disparate cultures. Sumerians, Persians, Egyptians, Portuguese, Dutch, and the Chinese have all sailed these waters for trade and expeditionary ventures in the times of yore. It has long been a medium of frantic trade activity. As per maritime historians and scholars, trade connections via the IOR even predate the Viking forays into the American land by 4,000 years.[13]

Although the European/American wars were fought and lost in their adjacent waters, the IOR gradually became the epicentre of conquest and clamour. For well over two centuries, the British Empire held sway over the IOR. During the 19th century, owing to Britain's absolute control over the IOR, it came to be referred to as 'Britain's lake'. However, the status quo underwent a tumultuous shift in the 20th century, following the devastation of the World Wars, as the war effort slackened British supremacy in the IOR. Following the Allied victory and with the onset of the Cold War, a wave of decolonisation swept across Asia, Africa, and Eastern Europe resulting in the mushrooming of new and at times unstable states.

Another fundamental shift in the geopolitical realm was that the increasing influence of Great Britain across the land and waters of the IOR had subsided and the void was filled by the United States. The US, through its military prowess, became the sole superpower towards the

late twentieth century and quite effortlessly tilted the balance of power in its favour.

Maritime present

Long relegated by Western scholars as an ocean of secondary importance in comparison to the Pacific and the Atlantic, the Indian Ocean is now emerging as a key maritime region. The attention has now been diverted to its strategic sea lines of communication and enhanced the importance of its ports and strategic natural resources and energy reserves. Moreover, the transformation of peripheral countries—China and India—into affluent states has changed the dynamics of the Indian Ocean politics as it has now become the arena replete with security issues, environmental challenges, weapon proliferation, burgeoning population, terrorism, and above all, a key source of energy.[14]

The IOR can be deemed as a burning cauldron brimming with grave security threats and is rightly declared as the nuclear flashpoint of the world. The United States' unequivocal and explicit support for India's entry into the Nuclear Suppliers Group (NSG), as well as the Logistics Exchange Memorandum of Agreement (LEMoA) between the two states, has raised quite a few eyebrows. It is predicted to escalate into an unwarranted arms race in the region. The tit-for-tat missile testing by the archrivals, India and Pakistan, further disturbed the security fabric in the region. Moreover, the IOR has become the locus of conflicts and wars. In a single calendar year of 2009, a total of 170 political conflicts were estimated to have primarily occurred in the IOR. In addition, transnational terrorist networks may become a hindrance to the free flow of sea traffic in the maritime domain.

As America's global clout recedes, China is filling the power vacuum in the Indian Ocean. By adopting a pragmatic realpolitik approach in securing its national interests, China has launched an ambitious commercial and economic drive overseas. Chinese infrastructural development along the littoral states of the Indian Ocean and investment in developing industrial zones has created quite the brouhaha. The One Belt One Road (OBOR) is one such initiative. As part of Chinese grand strategic design, OBOR is aimed at reviving and expanding the ancient trade routes and economic ties with Central Asia, South Asia, and Europe. Maritime Silk Road illustrates a master-stroke of Chinese diplomacy and can be envisaged as a projection of its naval

supremacy in the region to offset US presence and to secure its sea lines of communications or its energy lifelines. A major node of this initiative is the China-Pakistan Economic Corridor (CPEC), which has gained immense traction and is lauded as a game-changer for the participant nations.[15]

Amidst the current developments, it will be utterly prosaic to reiterate the significance of the IOR. It has long served as a political chessboard for the great power interests. India's Kautilyan posture is a source of anguish for regional states. Growing discontent between regional rivals India and China has further escalated regional security imperatives.[16]

Regional maritime environment

The contemporary world order is in a state of flux. It is now characterised by a multipolar world with rising centres of political and economic power. Centre of interest and activity has now shifted from the Atlantic to the Asia-Pacific. To ensure economic ascendency, access to reliable oil and gas reserves is essential for state supremacy and survival. In the face of fierce global competition and in pursuit of securing energy supplies, a dominant part of which is circulated through sea arteries, oceans are the most critical conduit for transportation.[17] Hence, to maintain an uninterrupted energy flow, major powers have bolstered their navies in order to assert strategic dominance in the oceanic realm to serve their political and economic ends.[18]

In this context, the IOR has become a medium of strategic coercion and a ball game for maritime jurisdictional wrangling. Countries with higher stakes in the region and its flanking waters will rebalance their naval forces to maintain predominance.[19]

Another striking feature of the IOR is that it has now become more nuclearised in comparison to other oceans. Not only do regional navies patrol the waters of the Indian Ocean for the purposes of ensuring the free flow of container/ship traffic, preservation of maritime security, and hegemonic control but warships of extra-regional navies have also become a constant factor. This has further added to the complexity of the security framework of the region and requires immediate rethinking on the response options.

Contemporary cooperative architecture

The Indian Ocean Naval Symposium

The Indian Ocean Naval Symposium (IONS), a maritime platform, is an initiative of the Indian Navy. With the pertinent theme of 'Contemporary Transnational Challenges – International Maritime Connectivities' for its inaugural session in 2008, the forum was aimed at increasing collaboration in terms of collective security amongst the littoral states of the Indian Ocean. IONS is driven by its agenda to enhance maritime cooperation, dissemination of knowledge and expertise to tackle issues confronting the region, and to generate mutual understanding. IONS is an exceptional forum and one of its kind for naval officers, particularly naval chiefs, which provides ample opportunity for discussion and interaction on common issues and challenges that haunt the IOR.[20] The stated aim of IONS is:

> …to attain mutually beneficial maritime security outcomes within the Indian Ocean. These outcomes will be achieved through the cooperation of all members in determining remedies relevant to regional maritime security.
>
> (IONS Charter)[21]

Currently, IONS is a multinational forum comprised of the following 10 member states: Australia, Bangladesh, France, India, Iran, Oman, Pakistan, Singapore, Thailand, and the United Arab Emirates (UAE).[22]

It has dawned upon the naval leadership that in the fast-paced information age, adventurism could be disastrous and it is only through a round of parleys that peace can be ensured. In a similar vein, the theme for the current year was decided to be 'information sharing and inter-operability' and the working group meeting was hosted under the auspices of Pakistan Navy.[23]

IONS has proved to be the most effective forum for planning and conducting activities directed towards dispersing maritime knowledge, most notable being open essay competitions, technical seminars, and anti-piracy conceptual and operational workshops.[24] A sustained and coordinated effort amongst the dynamic member states will add to the

vitality and dynamism of IONS in the face of diverse security issues and challenges.

The Indian Ocean Rim Association

A regional cooperative initiative of Indian Ocean Rim countries, the Indian Ocean Rim Association (IORA) was established in 1997 in Mauritius. The aim and purpose of the initiative was to promote economic and technical cooperation. It brings countries of varying sizes, economies, and diverse cultural backgrounds onto one platform.

It is a grouping of 19 member states: Australia, Bangladesh, India, Indonesia, Iran, Kenya, Malaysia, Madagascar, Mauritius, Mozambique, Oman, Seychelles, Singapore, South Africa, Sri Lanka, Tanzania, Thailand, UAE, and Yemen. Furthermore, there are five dialogue partners: China, Egypt, France, Japan, and the UK.

The Indian Ocean Marine Affairs Cooperation

The Indian Ocean Marine Affairs Cooperation (IOMAC) was the brainchild of the Sri Lankan leadership and has been declared as the most comprehensive cooperative mechanism aimed at expanding ocean governance and management. IOMAC is the only regional initiative that emerged in the United Nations Convention on the Law of the Sea (UNCLOS) process.

At present, IOMAC has nine member states: Indonesia, Iran, Kenya, Mauritius, Mozambique, Nepal, Pakistan, and Sri Lanka. The main objectives and target areas of IOMAC are integration of marine sector into national development strategies, catering for the rights and needs of land-locked and geographically disadvantaged states, acquisition and dissemination of information, harmonisation and strengthening of management arrangements, designation of focal points, development of maritime transport services, cooperation within international organisations, cooperation at international conferences, operational arrangements, and implementation of policies.[25]

In such times of multifarious challenges, IOMAC is fashioned to adopt a functional approach towards integrated marine affairs management, whereby it has facilitated governments to participate in and comprehend the nature and scope of the cooperative framework.

The International Maritime Conference

The International Maritime Conference (IMC) is an initiative of the Pakistan Navy. The IMC aims to foster maritime security and enhanced cooperation between participant countries. It has provided a forum for intra-regional and inter-regional maritime experts to formulate overarching methodologies. These methodologies and policy frameworks are aimed to combat terrorist onslaught in the IOR, ward off uncertainty caused by disasters owing to climatic changes, and improve governance and ocean management through sustained cooperative and coordinated efforts.

Existing maritime challenges and issues

Since the end of the Cold War, the concept of national security has undergone a fundamental metamorphosis. The twenty-first century saw state-centric traditional security concerns—wars, conquests, colonisation, imperialistic ventures—becoming outmoded. A new set of multifarious challenges has emerged, which confronts all states equally. Non-traditional threats such as piracy, terrorism, arms proliferation, illegal fishing, and drug and human trafficking are now prevalent in the IOR. In the new paradigm, the conventional state-based threats, alongside the violent non-state actors and hybrid warfare, are also surfacing. Nowhere is this more pronounced than in the Indian Ocean and its peripheries.[26]

The Indian Ocean has emerged as the geopolitical epicentre in the twenty-first century and has assumed immense significance owing to the growing economic dependence upon trans-oceanic trade, rising demand for energy reserves, and resource bonanza. Robert Kaplan has aptly stated:

> A map of the Indian Ocean exposes the contours of power politics in the twenty-first century.[27]

Even though the Indian Ocean is touted as the region of economic opportunity, the prevailing environment is such that the threat of impending wars, conflicts, and a nuclear war looms large. The region is fraught with fault-lines emanating from external military interventions, shifting strategic alliances, a contest for dominance, and possible

reversal of international agreements like the Iran Nuclear Deal—Joint Comprehensive Plan of Action (JCPOA)—between Iran and the P5+1 states.[28] Added to this volatile situation is the Middle Eastern meltdown, an outcome of the US invasion of Iraq and Afghanistan. The region has now become a cauldron of strife, bloodshed, and political power struggle. It will cast deep shadows on the IOR.

The economic buoyancy of the IOR, in short, is ruptured by innumerable traditional and non-traditional challenges that have turned the region into an 'arc of instability'.

Being fully cognizant of the magnitude of threats emanating from the maritime domain, it is pertinent to undertake a threadbare analysis of the varying degrees of the threat perceptions and challenges in the IOR:

Traditional security challenges

Evolving security environment

The IOR's security environment has undergone a fundamental shift. This radical change has been brought about through the advent of globalisation, economic upsurge, migration, shifting demography, and development on its shores.[29] The Indian Ocean, since antiquity, has remained a corridor between the Eastern and the Western world. Although it was relegated to a marginal role in the 20th century, it suddenly rose to a position of prominence after 9/11, when the US spearheaded the war against terror in Afghanistan and Iraq one after the other in the Indian Ocean. This propelled the oceanic realm of the Indian Ocean into the global geopolitical discourse and debate, raising concerns amongst major players. Furthermore, the renewed US attention encapsulated in its 'Rebalance to Asia', enshrines the geopolitical significance of the region in the current era. This renewed focus on the Indian Ocean by the major stakeholders (the US, China, and India)—who have shown a keen interest in the altering balance of power and regional peace and stability—has also increased the importance of the region in terms of global commerce. Hence, it becomes imperative that a stable security mechanism based on a cooperative framework between the stakeholders of the IOR be created to neutralise traditional and non-traditional security threats.

Since the Westphalian state system has somewhat become obsolete because the nation-state can no longer exercise supreme

authority over the use of force in the face of conflicts involving the increasing influence of non-state actors—terrorist outfits, multi-national corporations (MNCs), and trans-national corporations (TNCs). The conflict spectrum in the IOR has widened and the possibility of 3rd, 4th, and 5th generation warfare[30] is likely to be waged. Moreover, owing to the presence of failed/failing states—where political, economic, and social disparity abounds—the IOR is also susceptible to sub-conventional warfare. In addition, terrorism has made extensive inroads in the IOR and the presence of terrorists gives rise to a greater possibility of the occurrence of limited, conventional, and asymmetric wars under the nuclear umbrella.[31]

Arms race and the security dilemma

An upswing in the economic growth has swelled defence budgets of major powers and their naval forces are now more strongly driven towards acquiring new vessels and capabilities. This razor-sharp focus and persistent effort is evident in the IOR, which, in recent years, has experienced a vigorous arms-race, exemplified by "acquisition of platforms, weapons, & sensors such as anti-ship or land attack cruise missiles, submarines, anti-submarine, capabilities (ASW), sea-based air and missile defence capabilities, electronic warfare capabilities."[32]

With an evolving balance of power and emergence of economically strong states with robust naval and military presence, a radical shift is underway, which will be profoundly destabilising. This is likely going to exacerbate the 'security dilemma' and one country's ambitious defence readiness will unnerve the regional countries sparking countervailing similar reactions. Based on the Anglo-German naval arms race of 1909-14, analysts have outlined the following common characteristics of an arms race:

- Driven by international rather than domestic imperatives;
- Usually bilateral;
- Intense in terms of effort, rapidity, and expression;
- Associated with high levels of tension;
- Operationally specific; and
- Indicative of high strategic stakes.[33]

Almost all of the aforementioned characteristics are apparent in the twenty-first century US-China-Russia-India-Pakistan relationship prevalent in the IOR. Due to the altering balance of power in the region, particularly between China and the US, there is a strong likelihood of increased friction between states and their allies in the region. This situation is aptly covered by the Australian Defence White Paper in the following words:

> As other powers rise, and the primacy of US is increasingly tested, power relations will inevitably change. When this happens there will be the possibility of miscalculation. There is a small possibility of growing confrontation.[34]

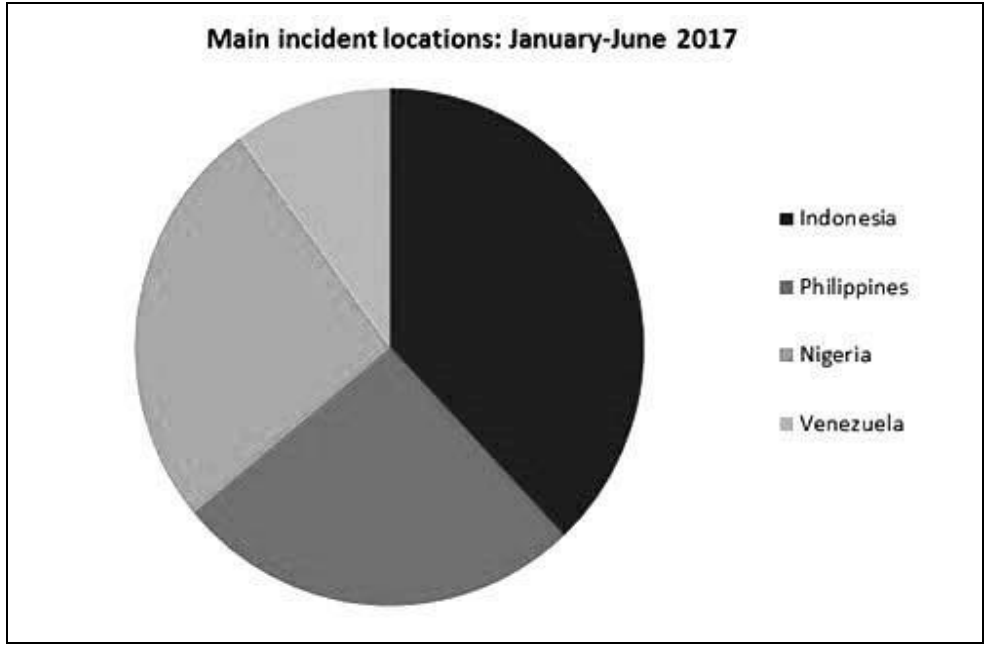
Added to the fragility of this insecure environment is the nuclear factor that is the most worrying aspect of all.

Non-traditional security challenges

Piracy

Piracy in the IOR has remained the most recurrent and critical maritime security threat since mankind sailed towards the oceanic sphere.[35] Travel and trade accounts are replete with evidence that territorial waters of the Indian Ocean were rife with piracy since the twelfth century. Towards the end of the twentieth century, piracy in the IOR was rampant to such an extent that redefinition of piracy as ‘a crime against humanity’ was included in the UNCLOS.

Concentration of piracy attacks in IOR



Source: International Maritime Bureau, http://www.hellenicshippingnews.com/ the-international-maritime-bureau-imb-publishes-its-second-quarter-report-on-piracy-and-

An exponential increase in maritime traffic of the Indian Ocean through congested and strategically located chokepoints—Strait of Malacca, Strait of Bab el-Mandeb, and Strait of Hormuz—was the paramount cause of incidents of piracy at sea.[36] To ensure safe passage through narrow chokepoints or the bottlenecks require vessels to reduce speed thus becoming exposed to attacks.

Owing to bad governance, corruption, and permissive social and political environment[37] in failed/failing states across the Indian Ocean littoral had led to a higher rate of pirate attacks. This is best illustrated by the example of Somalia, where economic stagnation, prolonged tensions, and disputes had transmuted the state into a hotbed for piracy.

A recent report on piracy and armed robbery published by the International Maritime Bureau (IMB) sheds light on the continuing decline in the trend of piracy incidents. The report states:

> 87 incidents have been reported in the first six months of 2017, with 63 ships boarded, 8 attempted attacks, 4 ships hijacked and 12 ships fired upon. This represents a decrease from 2016 when there were 97 reported incidents in the same period. In relation to crew, the IMB reports that 63 crew members were taken hostage, 3 injured, 2 killed and 41 kidnapped. The majority of the 87 reported incidents occurred in four countries: Indonesia, Philippines, Nigeria and Venezuela.

Narco-terrorism

Relentless wars, the onslaught of terrorism, and the evolving geopolitical landscape have primarily facilitated narcotics production and distribution across the IOR.[38] Money earned from narcotics is the mainstay for the financial stability and sustenance of terrorist organisations.[39] Asia is home to two-thirds of the world's opiate users, which has exponentially increased the risk of blood-borne infectious diseases amongst the vulnerable population.[40]

Marine pollution

The Group of Experts on the Scientific Aspects of Marine Pollution of United Nations (GESAMP) defines marine pollution as follow:

> Introduction by man directly or indirectly of substances or energy into the marine environment (including estuaries) resulting in such deleterious effects as harm to living resources hazards to human health, hindrance to marine activities including fishing, impairment of quality for use of sea water and reduction of amenities.[41]

Almost all the countries across the IOR are in their developmental phase and with a gradually expanding industrial base. The degrading effects of maritime pollution have become a source of anguish, despite the fact that industrial and agrarian activities have ceaselessly taken place through centuries. The pollution predicament is felt largely near coastal areas due to the circulation of waters, nature of the bottom topography, and relentless release of domestic and industrial discharges emanating from the increasing urbanisation and industrialisation across the region.[42]

According to one estimate, the amount of oil and petroleum discharged into the Indian Ocean is "around 3–5 × 10^6 tonnes annually which is approximately 40% of the total petroleum spill of the world oceans. The total recorded incidents of accidental oil spills in the Indian Ocean is 38 tanker and non-tanker disasters and 22 blowouts during the period of 1975 to the mid of 1988, resulting in a general tendency to ascribe 'Tar lumps' or 'Oil Slicks' afloat everywhere. The pollution caused by heavy metals and their salts continental wash and river the turbidity load by 24 × 10^8 tonnes annually."[43]

Maritime terrorism

As reliance on sea-borne trade rises, so does the risk of terrorist activities in the maritime domain. A suicide attack was carried out against USS Cole in 2000 at the Port of Aden, Yemen. Since then, a slew of terrorist activities have taken place: a small boat rammed against French MV Limberg along the coast of Yemen, Japanese oil tanker M-star was attacked in Strait of Hormuz. In 2004, a splinter group of Al-Qaeda attacked Iraq's offshore Oil Terminals-AlBashrah and Khor-al-Amayah. Only 2 days closure of the terminals inflicted a loss of $40 million in oil export revenues.[44]

About 90 percent of inter-continental cargo and approximately 63 percent of the global oil production traversing through maritime routes face the risk of interception.[45]

Climate change

The Himalayan-Karakoram-Hindukush mountain range is the world's 3rd largest ice mass after the North/South poles. It has been estimated that the mountain range has warmed up to 1.5°C which is double the average temperature (0.76°C) recorded in the last 3 decades. Owing to this heat wave, the Indus Delta has become prone to torrential rains, frequent tropical cyclones, recurring floods, and droughts.

The vulnerable situation is not only due to the melting of glaciers at a fast rate but also due to the rising sea level. Also, the intrusion of saline water is further causing havoc in the agricultural lands along coastal areas. The effects of rising sea level, seawater intrusion, and land subsidence will further lead to coastal erosion, coastal plain flooding, inundation of deltaic plains, salinisation of aquifers and soils, and alarming loss of habitats for wildlife.[46]

Maritime future of the IOR

> We can all look at the types of ships and the types of airplanes and the number of airplanes--that's interesting and worthy of note. But it is how countries elect to use those capabilities, and what purposes are that they see, and how they will interact with other navies.
>
> Admiral Gary Roughead
> US Chief of Naval Operations, in China for talks and an international fleet review in 2009[47]

The naval forces in the IOR have evolved in an unprecedented manner and a substantial strategic shift in the region is underway. The shifting and evolving global balance of power will be downright destabilising. This will give way to the following two scenarios:

Scenario I: proclivity towards competition

Technological advancement is likely to create an environment of peer competition between states, between navies, and between military

forces. This may urge the IOR states to enhance sea control, defence of trade, and territory and territorial waters through coercive means. Furthermore, the use of nuclear deterrent and ballistic missile defence will be an obvious choice.

Scenario II: proclivity towards cooperation

As articulated by Alfred Mahan: "commercial interest of the sea powers … lie in the preservation of peace."[48] The wave of globalisation in the 21st century has created an inter-dependent world where cooperation is the only antidote to scarcity and backwardness. Economic wellbeing can only be ensured through collaborative efforts on issues of common interest. Alfred Mahan was well aware of the phenomenon of connectivity of states and its implications. He further prognosticated:

> This, with the vast increase in rapidity of communication, has multiplied and strengthened the bonds knitting together the interests of nations to one another, till the whole new forms an articulated system not only of prodigious size and activity but of excessive sensitivities, unequalled in former ages.[49]

Applying this dictum of Mahan in the IOR, there is a low probability of such a cooperative scenario to emerge as long as the superfluous role of extra-regional countries continues to shape the political order of the region.

Suggested cooperative security construct

The developing maritime security environment in the Indian Ocean points to a menacing future marred by contests for military dominance underpinned by non-traditional challenges. Some of the political differences are hard to resolve and are victims of ingrained narratives. To overcome this muddled setup, a bottom-up approach is needed.

This will require navy-to-navy contact and expanded cooperation between maritime security agencies. We, the people of Asia, must realise and come to grips with the fact that a Tsunami will never discriminate between a friend or a foe, a nuclear or a conventional naval force, and urban or coastal centres, but it may uproot or even wipe out entire swathes of populations, towns, and cities.

Future historians may uncover in the debris of the Indian Ocean, along with shipwrecks, traces of a civilisation whose differences led to its annihilation. Here are few starting points to avoid an impending catastrophe:

- Joint seminars (IONS-IMC)
- Joint naval exercises (Malabar-Aman)
- Increased interaction between maritime think tanks: exchange programs

Furthermore, in order to ensure good order at sea or maritime security, it is essential to undertake maritime capacity building at institutional, national, and regional levels.

At the institutional level, duplication of roles and responsibilities should be avoided and a clear demarcation should be made by assigning agency-specific duties and legitimising it through legal framework or regulations.

At the national level, command and control is the defining feature and disparate maritime challenges can be sorted out through effective maritime domain awareness and effective surveillance of its zones through satellites, aircraft, drones, and surface vessels. To reiterate the abovementioned notion, duplication of responsibility should be avoided by a clear delineation between state agencies—coast guards, marine police, and intelligence networks.[50]

At the regional level, a forum like IONS can help in generating the capacity of member states by assisting them in areas of information sharing and interoperability.

Conclusion

> I find the great thing in this world is not so much where we stand, as in what direction we are moving: To reach the port of heaven, we must sail sometimes with the wind and sometimes against it – but we must sail, and not drift, nor lie at anchor.
>
> Oliver Wendell Holmes[51]

The maritime nature of the IOR as it is heavily dependent upon sea-borne trade, energy security, and marine resources implies that the maritime future of the IOR will be fraught with innumerable challenges.

However, the need for a regional cooperative security architecture is indispensable. The US's continuous preoccupation with the IOR and the reactive strategic postures by China will continue to generate strategic challenges and the resultant shifting alliances will be the determinants of the maritime future of the IOR. For that reason alone, the IOR requires renewed attention to ensure peace and stability.

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machine guns, breech-loading weapons, states entered into another generation, i.e., 2nd generation of warfare. The 3rd generation warfare was centered upon leveraging speed, stealth, and surprise to bypass enemy lines so as to collapse forces from the rear. The 4th generation warfare, however, is characterised by post-modern ethos—loss of state's monopoly over the use of violence—where the lines have blurred between war and politics, combatants and civilians, and an ingress by non-state actors is pronounced.

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