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TRINCO DIALOGUE - 2025

TRINCO Dialogue

MARITIME SECURITY AND GEOPOLITICAL SHIFTS IN THE INDIAN OCEAN: CHALLENGES AND SOLUTIONS

2025

22ND OCTOBER 2025

ORGANIZED BY

NAVAL & MARITIME ACADEMY

JUNIOR NAVAL STAFF COLLEGE

TRINCOMALEE | SRI LANKA

TRINCO
Dialogue
2025

MARITIME SECURITY AND
GEOPOLITICAL SHIFTS IN THE
INDIAN OCEAN:
CHALLENGES AND SOLUTIONS

EDITORIAL BOARD

TRINCO Dialogue 20 25
MARITIME SYMPOSIUM 10TH EDITION

CONTENT

FOREWORD

1.   The Trinco Dialogue is an annual maritime symposium conducted by the Naval and Maritime Academy (NMA), Trincomalee. The inaugural session of Trinco Dialogue was conducted by the Junior Naval Staff College (JNSC) on 28th November 2011 under the astute guidance of Commandant Naval and Maritime Academy (CN&MA). The objective of this annual maritime symposium is to provide a platform for Officers of JNSC to discuss, deliberate and expand the horizons and for other young Officers to enhance their knowledge on various subject matters related to contemporary maritime and military issues. The theme of the first symposium was "Identifying maritime challenges through dialogue". The second Trinco Dialogue was conducted on 27th October 2012 with the theme of "Collaborative maritime security through modern technology" and the third was conducted on 07th January 2014 with the theme of "Combating maritime disorder in IOR through collaborative and collective response of regional navies". The fourth edition of Trinco Dialogue was held on 08th November 2014 under the theme of "Maritime heritage of Sri Lanka and quest to become a maritime nation". The fifth Trinco Dialogue was successfully conducted under the theme of "Managing maritime domain of Sri Lanka" on 16th January 2016. The sixth edition of the symposium was conducted with the theme "Trincomalee Harbour and its strategic importance in contemporary maritime affairs" on 28th April 2017. The seventh edition of Trinco Dialogue was held under the theme of "Strategic importance of Trincomalee Harbour: a potential gateway to drive navy's maritime strategy 2025" on 06th February 2018. The Trinco Dialogue 2022, eighth edition commenced under the theme of the "Sri Lanka Navy: road map to future" on 21st October 2022.

2.   The ninth edition of Trinco Dialogue Maritime Symposium was organized by the JNSC under the theme of "Importance of maritime security in realizing Sri Lanka's maritime strategy", under the leadership of CN&MA, Commodore Buddhika Liyanagamage, RWP, RSP, USP, ndc, psc and was held on 27th October 2023 at Admiral Wasantha Karannagoda Auditorium (AWKA), Trincomalee. The Commander Eastern Naval Area (CENA), Rear Admiral PS De Silva, USP, ndc, psc served as the Chief Guest and delivered the keynote speech, followed by the opening remarks by the CN&MA.

3.   The tenth edition of Trinco Dialogue Maritime Symposium will be organized by the Junior Naval Staff Course No.38 of NMA under the profound leadership of CN&MA, Commodore Dinesh Bandara, RSP, USP, NWC, psc which is scheduled to be held on 22nd October 2025 at AWKA, Trincomalee. The CENA, Rear Admiral Ravindra Tissera, RSP********, USP, ndc, psc will serve as the Chief Guest, and the Deputy Area Commander, Commodore Buddhika Jayaweera, USP, psc will deliver the keynote speech, followed by the opening remarks by the CN&MA. The Trinco Dialogue 2025 will be conducted under the theme of "Maritime Security and Geopolitical Shifts in the Indian Ocean: Challenges and Solutions".

4.   The Symposium will be conducted in two sessions, comprising three papers in each session, presented by Naval Officers in different fields. Lieutenant Commander (N) MM Widanapathirana will open up the first session of the symposium, delivering the paper on "Strategic relevance of small powers: balancing geopolitical competition in the Indian Ocean". Thereafter, Lieutenant Commander (C) WAPK Wagaarachchi, Student Officer of 37th JNSC will share his view on an emerging concept under the topic "Emerging maritime threat landscape in the Indian Ocean region and shift to proactive defence posture through synergy". During the first session, the last paper will be presented by Lieutenant Commander (N) PMTS Bandara from the Student Officer of 37th JNSC, regarding the "Why it needs strengthening regional maritime governance and collective security via information sharing and

Maritime Domain Awareness (MDA) in Indian Ocean region". The first session will be moderated by Lieutenant Commander (N) KDSRP Karannagoda, Student Officer of the 38th JNSC.

5.   The second session will be moderated by the Lieutenant Commander (E) NTD Perera, Student Officer of 38th JNSC. In this session, the audience will have the prestige of witnessing three more contemporary topics, namely "Securing maritime commons-integration of technology for the stability of Indian Ocean region" presented by Lieutenant Commander (E) MASL Wijerathne and Lieutenant Commander (E) RAPH Ranasinghe Student Officers of 38th JNSC, "The bay of Bengal and emerging regional alignments-challenges and solutions", presented by Students Officers of 38th JNSC, Commander (IN) Sundara Pandiyan, Commander (IN) Pushpinder Tyagi and Lieutenant Commander (BN) Shams Sadekin Nirnoy. The final paper of the second session, "Geo-political realignment of middle powers in the Indian Ocean", will be presented by Lieutenant Commander (CE) BAS Vathsara and Lieutenant Commander (N) AM Wickramarachchi, the Student Officers of 38th JNSC. This E-journal comprises with above papers and the selected paper of "Between the dragon and the elephant: the strategic consequences of China India rivalry for developing Indian Ocean nations", by Lieutenant Commander (N) MKM Fernando.

CDR (IN)
PUSHPINDER TYAGI

CDR (IN)
SUNDARA PANDIAN

LCDR (G)
MHBRSU JAYASINGHE

LCDR (G)
ADCA LANKACHANDRA

LCDR (ASW)
MGN MALDENIYA

LCDR (L)
MSN MUTHUGALA

LCDR (CE)
BAS VATHSARA

LCDR (CE)
KMAU KAHANDHAWA

LCDR (CE)
BMA GUNASEKARA

LCDR (N)
AM WICKRAMAARACHCHI

LCDR (C)
PL SAMPATH

LCDR (S)
EMGDN EKANAYAKE

LCDR (N)
KDSRP KARANNAGODA

LCDR (G)
RMTP RATHNAYAKA

LCDR (E)
NTD PERERA

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RKB DISSANAYAKE

LCDR (N)
ASKDTD SIRIWARDANA

LCDR (E)
MASL WIJERATHNE

LCDR (E)
KDD LAKSITHA

LCDR (E)
RAPH RANASINGHE

LCDR (BN)
SHAMS SADEKIN NIRNOY

LT (S)
GC PATHTHAPPERUMA

LT (L)
CGY DHARMAWARDHANA

LT
TAMDK THILAKANAYAKE

LT (L)
TACP MADHUSANKHA

LT (S)
RMUS RATHNAYAKA

FLT LT
LTD GUNASEKARA

LT (VNF)
WHGDI WIJEWARDHANA

LT (VNF)
NDK PRIYADARSHANI

ALT
IPRS RANASINGHE

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1.   Considered one of the strategically important Ocean spaces in the world, the Indian Ocean has witnessed the evolving nature of maritime security and geopolitical shifts that can impact the much-needed equilibrium in the Indian Ocean if the challenges are not addressed through a comprehensive approach. The ever-changing maritime security landscape in the region has not only witnessed complex maritime security threats and challenges becoming complicated; but also the interwoven nature of maritime security dynamics and the growing geopolitical sensitives that have an impact on the regional and global stability.

2.   Players of different scales and magnitudes have employed varying ways and means to gain a strategic edge over their competitors in the Indian Ocean. While the above competition has divided the Indian Ocean region, a common census is reached when addressing evolving maritime security threats and challenges through a collaborative approach. Among a range of maritime security threats and challenges; Illegal, Unreported, and Unregulated (IUU) fishing, drug trafficking, human smuggling, protection of marine resources, and the safety of the maritime trade and energy routes are in need of timely solutions. Further, despite the presence of several multilateral construct in the region to address the above, the absence of a comprehensive multilateral constructs capable of finding solutions to the above stated challenges is a serious concern that demands urgent attention.

3.   Further, small island nations in the Indian Ocean encounter maritime security threats and challenges that are unique in many ways. Their concerns range from climate change to the tremors felt due to sudden tectonic shifts that take place in the Indian Ocean as result of the competition among the major power players. This has caught many such small island nations in a dilemma when making strategic decisions. The lack of capacity and capability to have all-dimensional maritime visibility is yet another hurdle these island nations encounter regularly. These small Island nation in the Indian Ocean form critical components of the broader strategies implemented by leading players, it is imperative that the concerns of these nations are addressed through a vibrant regional strategy.

4.   The emergence of the Indian Ocean as a critical test bed for regional and global power play has presented a complicated set of challenges with the shift of geopolitical power to this strategically important Ocean space. Some of the security concerns on land, the rise of regional naval power, and the power competition are seen as serious concerns that could impact the Indian Ocean equilibrium, which is linked to maritime safety and security. Further, several strategies and initiatives introduced by key players related to the broader Indo-Pacific Oceans are seen as crucial places of the strategic competition that has resulted in creating geopolitical tensions in the region and beyond.

5.   In the above context, this year's edition of the Trinco Dialogue Maritime Symposium offers a distinctive platform for all stakeholders to discuss and deliberate maritime safety and security issues along with geopolitical dynamics that are taking place in the Indian Ocean to chart a new course capable of addressing the challenges and to find viable solutions under the theme of "Maritime security and geopolitical shifts in the Indian Ocean: challenges and solutions". The conference also expects to focus on some of the key areas under the above theme such as; capacity and capability needs, advanced technologies and challenges, 360 maritime domain visibility, scientific ocean research, marine resource optimization, and ocean governance challenges.

THE PROGRAMME

"MARITIME SECURITY AND GEOPOLITICAL SHIFTS IN THE INDIAN OCEAN: CHALLENGES AND SOLUTIONS"

INAUGURAL SESSION

0800	Registration of Participants
0840	Arrival of the Chief Guest - Rear Admiral HRFM Tissera, RSP********, USP, ndc, psc Commander Eastern Naval Area
0845	Lighting of the Traditional Oil Lamp
0848	One minute silence to pay tribute to fallen war heroes
0850	NMA Anthem
0854	Welcome Dance
0900	Welcome Remarks by Commodore DMDC Bandara, RSP, USP, NWC, psc Commandant Naval and Maritime Academy
0907	Inaugural Speech by Chief Guest - Rear Admiral HRFM Tissera, RSP********, USP, ndc, psc Commander Eastern Naval Area
0916	Keynote Address by Commodore JMBSB Jayaweera, USP, psc Deputy Area Commander Eastern Naval Area
0941	Launching of E-Journal
0945	Presenting of Mementos
0950	Group photograph (On invitation) and Refreshments

SESSION ONE - REGIONAL MARITIME COOPERATION AND GOVERNANCE: BUILDING RESILIENCE THROUGH COLLECTIVE SECURITY FRAMEWORKS

	Moderate by Lieutenant Commander (N) KDSRP Karannagoda, 38th JNSC
	Paper by Lieutenant Commander (N) NM Widanapathirana "Strategic Relevance of Small Powers: Balancing Geopolitical Competition in Indian Ocean"
1025-1230	Paper by Lieutenant Commander (C) WAPK Wagaarachchi, 37th JNSC "Emerging Maritime Threat Landscape in the Indian Ocean Region and Shift to Proactive Defence Posture through Synergy"
	Paper by Lieutenant Commander (N) PMTS Bandara, 37th JNSC "Why it Needs Strengthening Regional Maritime Governance and Collective Security via Information Sharing and Maritime Domain Awareness (MDA) in Indian Ocean Region"
	Q & A Session
	Presenting of Mementos
1230-1240	Intermission

SESSION TWO - STRATEGIC COMPETITION AND GEOPOLITICAL REALIGNMENTS IN THE INDIAN OCEAN: IMPLICATIONS FOR REGIONAL STABILITY

|	
1240-1400	Moderate by Lieutenant Commander (E) NTD Perera, 38th JNSC
	Paper by Lieutenant Commander (E) MASL Wijerathne and Lieutenant Commander (E) RAPH Ranasinghe,38th JNSC "Securing Maritime Commons - Integration of Technology for the Stability of Indian Ocean Region"
	Paper by Commander (IN) Sundara Pandian, Commander (IN) Pushpinder Tyagi and Lieutenant Commander (BN) Shams Sadekin Nirnoy, 38th JNSC "The Bay of Bengal and Emerging Regional Alignments - Challenges and Solutions"
	Paper by Lieutenant Commander (CE) BAS Vathsara and Lieutenant Commander (N) AM Wickramaarachchi, 38th JNSC "Geo-Political Realignment of Middle Powers in the Indian Ocean"
	Q & A Session
	Presenting of Mementos
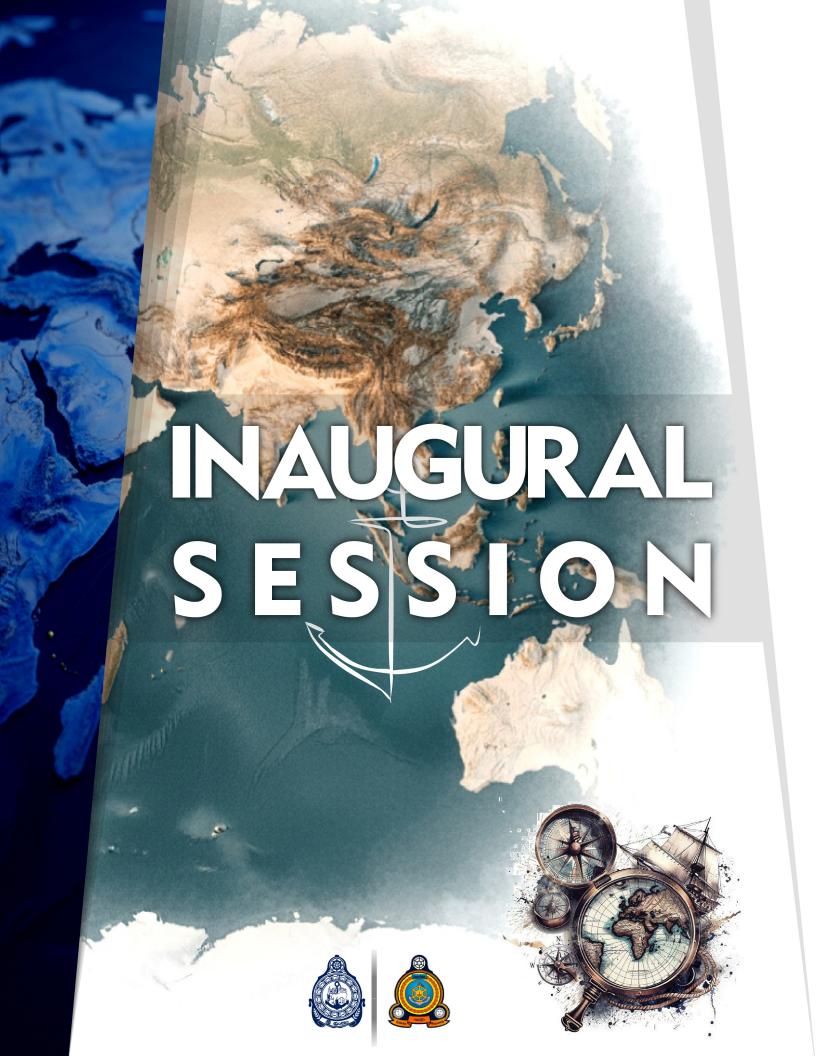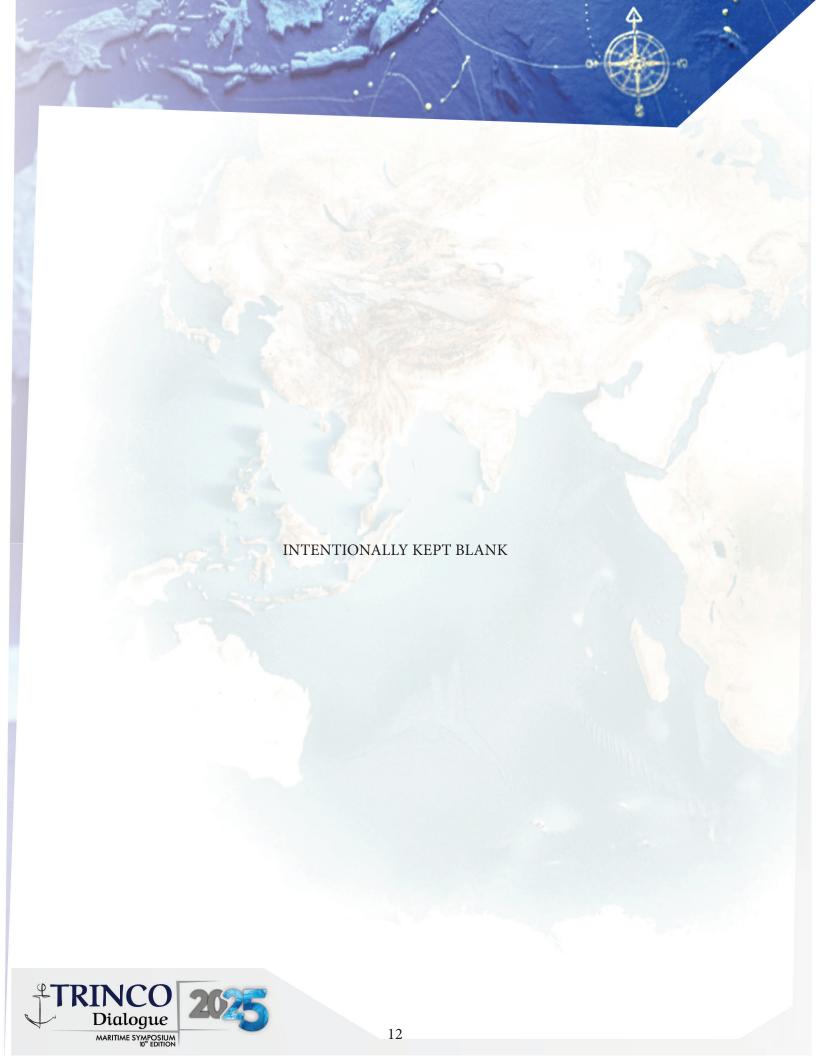
CLOSING CEREMONY

1400-1405	Closing Remarks by Lieutenant Commander MHBRSU Jayasinghe, 38th JNSC
1405-1505	Dinner at Eastern Naval Area Wardroom

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INAUGURAL SESSION

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Rear Admiral Ravindra Tissera
RSP********, USP, ndc, psc, MMaritimePol, MSc (Mgt),
BSc (DS) Hons, AFNI, JP (Whole Island)
The Commander Eastern Naval Area

History reminds us that nations have always relied upon maritime power to secure their prosperity and safeguard their interests. Today, the Indian Ocean has emerged as one of the most strategically significant ocean spaces in the world, where maritime security and shifting geopolitical dynamics converge to shape the future of the region and beyond. In this context, the theme of the Trinco Dialogue Symposium 2025, 'Maritime Security and Geopolitical Shifts in the Indian Ocean: Challenges and Solutions' is timely and relevant topic to discuss.

The Indian Ocean is the lifeline of global trade and energy, yet it faces a multitude of complex challenges. These include IUU fishing, drug trafficking, human smuggling, environmental degradation, and the growing implications of climate change. At the same time, intensified competition among major powers has added further complexities, often placing small island nations such as Sri Lanka at the crossroads of strategic contestation.

As an island nation situated at the very heart of the Indian Ocean, Sri Lanka cannot afford to remain passive in the face of these developments. Ensuring the safety and security of maritime trade routes, protecting marine resources, and enhancing all-dimensional maritime visibility are vital to our national interests. Addressing these challenges requires not just the efforts of one nation but a collective approach through collaboration, capacity building, and trust-building measures.

In this context, the Trinco Dialogue serves as an opportunity and invaluable platform for dialogue and cooperation. By bringing together professionals, scholars, and practitioners, this forum enables us to share perspectives, identify solutions, and strengthen our commitment to maritime security and regional stability.

I am confident that the deliberations of Trinco Dialogue Maritime Symposium 2025 will generate meaningful insights and constructive recommendations to confront the pressing challenges of our time. I extend my appreciation to the Naval and Maritime Academy and the Junior Naval Staff College for their dedication and commitment in organizing this important forum.

May this symposium inspire us all to work towards a safer, more stable, and prosperous Indian Ocean for the benefit of present and future generations.

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Commodore Buddhika Jayaweera
USP, psc, MDS, MSc in Maritime Affairs, PG Dip in IR,
BSc (DS) Hons, MICS (UK), AFNI (UK), JP (WI)
The Deputy Area Commander Eastern Naval Area

It is a great honour for me to deliver the keynote message for the Trinco Dialogue Maritime Symposium 2025, hosted by the Naval and Maritime Academy under a very important theme, 'Maritime Security and Geopolitical Shifts in the Indian Ocean: Challenges and Solutions.' I sincerely thank the Junior Naval Staff Course No.38 for creating this vibrant platform, which brings together young naval officers grooming to be maritime professionals to explore the evolving maritime landscape of our region.

The Indian Ocean is not merely a body of water, it is a region of global importance. It transports two-thirds of the world's oil shipments, one-third of bulk cargo and acts as a bridge between East and West. The Indian Ocean is crucial for economic stability, energy security and strategic influence. As geopolitical interests grow stronger, major powers compete for access, bases, partnerships and control over sea lanes. These developments have shifted the maritime balance and turned the Indian Ocean into a lively space of strategic rivalry.

In addition to power rivalry, Indian Ocean region face non-traditional maritime threats such as piracy, illegal fishing, maritime terrorism, cyber intrusions, narcotics trafficking and grey-zone activities. Climate change and natural disasters further increase humanitarian and operational demands. Technological progress in warfare and hybrid tactics challenge the tasks of even the most capable navies. For nations like Sri Lanka, located at the heart of the Indian Ocean, these trends create both vulnerabilities and opportunities. Sri Lanka must therefore adopt a proactive, agile and collaborative approach.

To ensure security amidst such shifts, regional cooperation is essential. No single nation can protect the maritime domain alone. Regional Navies must strengthen information sharing, joint exercises, maritime domain awareness and capacity building among nations. A future-ready navy must embrace strategic foresight, interoperability and multilateral partnerships, while staying firmly rooted in national interests and responsible maritime stewardship.

In this context, the Sri Lanka Navy continues to serve as a key stabilizing force and a trusted maritime partner in the Indian Ocean. Equally important, forums like the Trinco Dialogue maritime symposium enable Sri Lankan Navy officers to think critically, engage constructively and contribute to maritime diplomacy and strategic thinking. By promoting intellectual discussion, this symposium enhances both our professional skills and our national maritime vision.

As nations face geopolitical shifts and new challenges, I am confident that collective insight will help develop innovative, cooperative and sustainable solutions for the future of maritime security. Let the Trinco Dialogue maritime symposium 2025 inspire the audience to collaborate with determination and foresight, ensuring that the Indian Ocean remains a region of peace, stability and shared prosperity.

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Commodore Dinesh Bandara
RSP, USP, NWC, psc
The Commandant, Naval & Maritime Academy

It is with great pride and satisfaction that I extend my warm greetings on the occasion of the 10th Trinco Dialogue Maritime Symposium, held under the theme 'Maritime Security and Geopolitical Shifts in the Indian Ocean: Challenges and Solutions.'

The Trinco Dialogue Symposium has long held a prominent place in the calendar of the Naval and Maritime Academy, serving as a distinguished intellectual forum that has broadened perspectives within the Sri Lanka Navy. It is therefore a matter of immense joy to witness its revival in full spirit, made possible through the commendable initiative of the Directing Staff and the Student Officers of the 38th Junior Naval Staff Course.

As the premier naval training establishment of the Sri Lanka Navy, the Naval and Maritime Academy remains unwavering in its mission to expand the academic and professional horizons of naval personnel while upholding the enduring values of naval service. The successful organization of the Trinco Dialogue Symposium 2025 stands as a clear reflection of this commitment.

Over the years, the Trinco Dialogue Maritime Symposium has evolved into a dynamic platform for Officers of the Sri Lanka Navy, Sri Lanka Army, Sri Lanka Air Force and representative of foreign navies to engage in meaningful Maritime Symposium. By analyzing contemporary maritime issues and drawing on the expertise of distinguished speakers, the forum nurtures professional growth while promoting fresh insights into the ever evolving maritime domain.

The Symposium also possesses both the capacity and the vision to address the emerging security challenges and geopolitical shifts in the Indian Ocean, while encouraging solutions that enhance maritime security through enduring partnerships between civilian and military authorities. By sharing and reflecting on contemporary maritime experiences, this forum offers naval personnel an invaluable opportunity to develop new perspectives, strengthen collaborative ties and foster cooperative approaches to common challenges. As nations have steadily advanced their maritime capabilities over the past decade, I firmly believe the time has now come for us to move forward with renewed determination and positivity.

In this context, unbiases cooperation, the fostering of enduring partnerships and the sharing of best practices stand as key objectives of the Trinco Dialogue Maritime Symposium. I am confident that the carefully curated lineup of presentations, insightful panel discussions and the blend of formal and informal interactions throughout the sessions will significantly contribute to achieving these aims.

Through this endeavor, the Sri Lanka Navy aspires to groom its future leaders with confidence, competence and vision. I am certain that the Trinco Dialogue Maritime Symposium 2025 will enrich the knowledge of all participants and generate valuable perspectives on the challenges and opportunities that define the maritime domain.

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SESSION I

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STRATEGIC RELEVANCE OF SMALL POWERS: BALANCING GEOPOLITICAL COMPETITION IN THE INDIAN OCEAN

Lieutenant Commander (N) MM Widanapathirana
BNavalSt (Maritime Warfare) Hons

INTRODUCTION

1.   The Indian Ocean Region (IOR) plays an important role in global politics. It stretches from the east coast of Africa to the west coast of Australia and includes some of the busiest sea routes in the world. These routes connect the Atlantic and Pacific Oceans through key choke points like the Strait of Hormuz, Bab el-Mandeb, and the Strait of Malacca. Approximately 80% of the world's maritime oil trade and more than half of all container shipping pass through these waters (Brewster, 2021). Therefore, control and security of the Indian Ocean are important not just regionally but globally.

2.   In the past, colonial empires and later Cold War powers controlled this region's security and trade. But in the 21st century, the region is going through major changes due to the rise of China and India, the continuing presence of the United States, and the moves of European and Middle Eastern countries (Cordner, 2019). Among all this, smaller countries like Sri Lanka, Maldives, Mauritius, Seychelles, Oman, and Djibouti have crucial roles.

3.   Even though these small powers have limited populations, economies, and military forces, their locations give them high strategic importance. They act as maritime gateways, logistic centres, and diplomatic buffers between major powers. This striking contrast of small size but important position is the main focus of this study.

4.   This paper argues that these small powers influence the region not by military force, but through diplomatic skill, strategic partnerships, and working together in groups. They help balance competing interests and support regional stability. By looking at case studies across the IOR, this paper shows how these nations navigate pressure from major powers while protecting their independence and promoting cooperative maritime governance. Recognizing and strengthening the roles of small powers is vital to building a stable and inclusive Indian Ocean security system one that reduces rivalry between major powers and promotes stability through cooperation, capacity building, and institutions.

CONCEPTUALISING SMALL POWERS IN THE INDIAN OCEAN REGION

5.   The idea of "small power" depends on comparison. In international relations, it usually means countries with less economic, military, or population power compared to great powers. But being small doesn't mean unimportant. It means these countries act differently based on their limits and opportunities (Hey, 2003).

6.   Different scholars view small powers differently. Rothstein (1968) said that they can't protect themselves alone from a major power. Thorhallsson (2012) added that small states use both hard power (military and economic) and soft power (diplomacy and norms) by relying on international rules and partnerships. For the Indian Ocean, this explains the strategies of countries like Sri Lanka, the Maldives, Mauritius, Seychelles, Oman, and Djibouti placed at important crossroads of sea routes and global competition.

7.   Realists see small powers as vulnerable and needing careful balance between aligning with major powers and building resilience. But liberal and constructivist theories suggest these states can turn their weaknesses into strengths by using international institutions, diplomacy, and their geography (Bailes et al., 2016). So, small powers are not just passive they actively shape their regions.

8.   In the Indian Ocean, these countries hold key positions on sea lanes. Sri Lanka is near the important east-west shipping path, the Maldives controls large ocean zones, Mauritius and Seychelles are key in the southwestern ocean, Oman controls the entrance to the Strait of Hormuz, and Djibouti guards the Bab el-Mandeb, a crucial link between the Red Sea and Indian Ocean. These spots give them leverage to influence despite their smaller size (Brewster, 2021).

9.   These small powers use practical foreign policies, often working with multiple major powers at the same time to benefit themselves without depending too much on one. This is called "diplomatic entrepreneurship," where smaller states actively shape their external relations by negotiation and regional involvement (Cooper & Shaw, 2009).

10.   They also join regional groups like the Indian Ocean Rim Association (IORA) and work on maritime security together. This boosts their influence, attracts international help, and sets regional rules on piracy, ocean use, and economic development. Small powers thus contribute to the region's order by building consensus and cooperation rather than using force. Therefore, understanding small powers in the Indian Ocean means looking beyond just their size or military strength. It requires seeing their strategic value, diplomatic skills, and role in creating regional peace and stability.

GEOPOLITICAL COMPETITION AND GREAT POWER RIVALRY IN THE INDIAN OCEAN

11.   The Indian Ocean Region has become a key arena in global politics today. It connects energy-rich areas in the Middle East with manufacturing hubs in East Asia and consumer markets in Europe and Africa. Controlling or having access to these sea routes is crucial for global influence. The famous strategist Alfred Mahan said, "Whoever controls the Indian Ocean will dominate Asia" (Mahan, 1890/1987). Though he wrote this long ago, the idea still holds true as major powers compete to influence ports, sea lanes, and coastal states around the Indian Ocean.

China's Expanding Maritime Presence

12.	China's presence in the Indian Ocean has changed the regional balance. Through its Belt and Road Initiative (BRI), China has funded ports and infrastructure across the region to form a network called the "String of Pearls," which stretches from the South China Sea to the Red Sea (Kaplan, 2010; Brewster, 2019). Projects like the Hambantota Port in Sri Lanka, the Gwadar port in Pakistan, and a military base in Djibouti show China's aim to secure its trade and energy routes and gain strategic footholds.

13.	Though China says these are development projects, many worry they could have military uses. For smaller countries, Chinese investment means opportunities for growth but also risks of debt dependence and more influence from China (Chacko, 2021).

India's Regional Role

14.	India is the main major power inside the Indian Ocean and sees the region as its sphere of influence. India's maritime strategies stress the importance of the Indian Ocean to its security and growth. Initiatives like SAGAR (Security and Growth for All in the Region) and Project Mausam show India's efforts to provide security and build connections with neighbours. India's growing navy and partnerships with island nations like Maldives, Seychelles, and Mauritius aim to counterbalance China's influence (Pant & Saha, 2020).However, these smaller states want to avoid too much reliance on India, instead preferring to keep many connections to stay independent.

The United States and Western Allies

15.	The U.S. is a strong extra-regional power with bases like the Fifth Fleet in Bahrain. Its main goals are to keep sea lanes open and limit China's military power. New partnerships like AUKUS and the Quad (with India, Japan, and Australia) show the West's focus on the Indo-Pacific, which includes the Indian Ocean (Medcalf, 2020). For smaller countries, cooperating with the U.S. and its allies offers security, but it can also be politically delicate because it might upset China or limit their diplomatic options.

Middle Eastern and European Interests

16.	Middle Eastern countries like Saudi Arabia, UAE, and Iran also compete for influence in the Western Indian Ocean, especially near Africa's Horn. European countries like France, the UK, and the Netherlands maintain territories and naval bases, keeping a European presence in the region (Pétriat, 2022).

Challenges for Small Powers

17.	The crowded competition from these major powers squeezes smaller states. They get investment and new partnerships, but also face pressures that threaten their independence. In this complex rivalry, the small states' skill to balance between powers is crucial to whether the Indian Ocean becomes stable or a place of conflict.

STRATEGIC RELEVANCE OF SMALL POWERS – CASE STUDIES

The Strategic Relevance of Small Powers in the Indian Ocean Region

18.	The strategic importance of small powers in the Indian Ocean Region (IOR) lies in their geography, diplomatic agility, and ability to influence security dynamics disproportionate to their size. Despite variations in history, resources, and governance, these states share a common strategic posture preserving sovereignty while pragmatically engaging great powers. This section examines six such states Sri Lanka, the Maldives, Mauritius, Seychelles, Oman, and Djibouti highlighting how each navigates the evolving maritime order.

Sri Lanka

19.	Located at the crossroads of major East–West sea lanes, Sri Lanka occupies a pivotal position a few nautical miles from key routes linking the Strait of Hormuz and the Strait of Malacca. Its ports Colombo, Galle, and Hambantota have long served as refuelling and transshipment hubs. This centrality, however, exposes Sri Lanka to great power rivalry. The Chinese-financed Hambantota Port has fuelled perceptions of China's "String of Pearls," sparking concern in India and the US (Pant & Sing, 2020). To mitigate such tensions, Sri Lanka maintains a non-aligned stance, engaging multiple partners through mechanisms like the Colombo Security Conclave (CSC) with India, the Maldives, and Mauritius (Ministry of Defense, 2023). Beyond strategic positioning, Sri Lanka contributes to maritime domain awareness (MDA), counter-narcotics operations, and search and rescue coordination, underscoring its cooperative security role. The island's balancing act between external economic dependence and sovereignty preservation epitomizes small-power diplomacy in the IOR.

Maldives

20.	Maldives, a chain of atolls southwest of India, straddles vital shipping lanes connecting the Middle East and East Asia (Shaheed, 2021). Traditionally under India's security umbrella, its foreign policy oscillates between New Delhi and Beijing. During President Abdulla Yameen's tenure (2013–2018), the Maldives joined China's Belt and Road Initiative, prompting India's renewed engagement through the SAGAR and 'Neighbourhood First' policies (Singh, 2020).Today, the Maldives adopts a multi-polar strategy strengthening ties with India, the US, and Australia while guarding its autonomy. As a low-lying island nation, it also foregrounds climate security as an existential issue, linking environmental advocacy with maritime governance (UNDP, 2022). This intersection of ecological and strategic imperatives enhances its diplomatic relevance in the IOR.

Mauritius and Seychelles

21.	Mauritius and Seychelles, though small, command vast Exclusive Economic Zones (EEZs), giving them control over critical ocean spaces. Mauritius functions as a stable political and financial hub, supporting regional maritime initiatives through the Indian Ocean Rim Association (IORA) and CSC (Ramtohul, 2018). Hosting Indian surveillance facilities, it enhances situational awareness in the southwestern IOR. Seychelles, meanwhile, has been central to anti-piracy and anti–illegal fishing operations. The Regional Anti-Piracy Prosecutions and Intelligence

Coordination Centre in Victoria underscores its status as a maritime security hub (Doyle, 2020). While open to cooperation, Seychelles remains cautious about foreign military presence, as shown by the controversy over India's proposed base on Assumption Island. Both states champion "Blue Diplomacy," linking ocean sustainability with regional peace and prosperity. Their governance credibility and maritime stewardship grant them soft power beyond their geographic size.

Oman

22.   At the southern mouth of the Arabian Peninsula, Oman commands the Strait of Hormuz one of the world's most critical energy choke points. Unlike many Gulf states, Oman has preserved an independent and moderate foreign policy, acting as a bridge between rivals (Valeri, 2017).Hosting naval exercises with the US, UK, and India while maintaining ties with Iran and China, Oman exemplifies diplomatic balance. The Duqm Port, developed with international investment, reinforces Oman's role as a logistics and naval hub (Baldwin, 2019). By prioritising neutrality and dialogue, Oman demonstrates how small powers can derive strategic leverage through mediation and inclusivity, evident in its participation in the Indian Ocean Naval Symposium (IONS).

Djibouti

23.   At the entrance to the Red Sea near the Bab el-Mandeb Strait, Djibouti commands access to the Suez Canal vital for global trade. Despite its small size, Djibouti hosts several foreign military bases, including those of the US, China, France, Japan, and Italy (Woldemariam, 2020). This concentration reflects both its strategic rent-seeking capacity and the risks of dependency. By monetising its location through port services and military leasing, Djibouti has become a logistical hub for security and humanitarian operations in the Horn of Africa. However, it faces challenges balancing competing interests, particularly amid US–China rivalry. China's first overseas military base, established there in 2017, exemplifies how small states can become arenas of global competition (Blanchard, 2019). Still, Djibouti's pragmatic diplomacy allows it to turn vulnerability into strategic advantage.

Comparative Reflections

24.   Across these cases, small powers in the IOR exhibit adaptive, agency-driven strategies shaped by geography, history, and external pressures. Sri Lanka and the Maldives pursue balancing diplomacy between India and China; Mauritius and Seychelles promote maritime governance and sustainable ocean politics; Oman leverages neutrality as strategic capital; and Djibouti practices rent diplomacy through multi-base hosting. Their influence stems less from material power and more from their ability to manage interdependence, mediate rivalries, and foster multilateral cooperation. Collectively, they serve as stabilisers and connectors in an increasingly contested oceanic space. In an era of intensifying great power rivalry, the strategic relevance of small powers in the Indian Ocean lies in their resilience, flexibility, and ability to uphold regional equilibrium.

CHALLENGES FACED BY SMALL POWERS

25.   Though small powers are important strategically, they face many problems. Their ability to stay independent and stable is tested by economic, security, environmental, and institutional challenges.

Economic Dependence and Debt Problems

26.   Many small Indian Ocean countries depend economically on outside countries for development money and trade. They often rely on tourism or maritime services and need foreign investment for growth. But these investments can create unbalanced dependencies, limiting their freedom (Hurley et al., 2019).For example, Sri Lanka's Hambantota Port project funded by China led to leasing the port to China, showing debt risks (Abi-Habib, 2018). The Maldives also took much Chinese investment and faced debt problems later. These cases show economic help can become political pressure, weakening small states' independence.

Security Risks and Military Pressures

27.   The Indian Ocean is becoming more militarized because of global rivalries. Major navies like the US, India, and China are active in the region. Small states near choke points, like Djibouti and Oman, are caught in these tensions (Holmes & Yoshihara, 2018).Foreign military bases bring money but also risks. Djibouti hosts many foreign troops, making sovereignty a concern. Seychelles and Mauritius are careful about foreign military presence. Small states must balance allowing cooperation without losing control.

Climate Change Threats

28.   For island nations like Maldives, Seychelles, and Mauritius, climate change is the biggest threat. Rising sea levels and storms threaten their land and economy. If sea levels rise too much, some islands may become uninhabitable (IPCC, 2021). Environmental problems are not only about nature but also security. Small states can be pressured by major countries offering climate aid tied to political demands. Protecting environmental sovereignty being able to handle climate change independently is vital for these countries.

Institutional and Capacity Limits

29.   Small states often struggle to manage their large maritime zones because they lack enough navy and coast guard forces (Vircoulon, 2020). Sri Lanka and Maldives need foreign help for maritime surveillance and fighting crimes. This dependence on external tech and training can cause information imbalance and reliance. Weak governance, corruption, and instability can also weaken their ability to work well. Building strong institutions is essential for them to be reliable partners in the region.

Diplomatic Balance and Overstretch

30.   Small powers try to balance many major partners to avoid over dependence. But this is hard. Relying too much on one country risks losing neutrality. Trying to keep too many ties can stretch diplomatic resources thin (Hey, 2003). Sri Lanka's balancing between India, China, and the US, and Oman's neutrality in Gulf conflicts, show the delicate diplomacy needed. Regional groups like IORA and CSC add duties but also strain small countries' capacity.

Political Instability

31.   Internal political changes often cause shifts in foreign policy, harming consistency. Maldives switches between pro-India and pro-China policies. Sri Lanka's economic problems and governance issues reduce its international influence (Kelegama, 2017). Political instability also hurts military and civil cooperation, policy making, and public trust. Stable internal politics is key for effective foreign policy.

STRATEGIES AND DIPLOMATIC APPROACHES OF SMALL POWERS

32.   Despite challenges, small Indian Ocean states have shown smart diplomacy and strategic adaptability. Their success comes from balancing powers, joining groups, cooperating in maritime security, using soft power, and diversifying economically.

Strategic Hedging and Non-Alignment

33.   Small powers hedge their bets by avoiding dependency on one major power, instead benefiting from many ties. This is a modern form of non-alignment (Kuik, 2008). Sri Lanka maintains balance between India, China, and the US by hosting multiple naval visits and joining peacekeeping and diplomatic forums. Oman remains neutral, hosting US, India, and British forces while keeping good ties with Iran and China (Valeri, 2017). This flexible diplomacy helps small states attract aid and avoid being trapped by any one power.

Multilateralism and Regional Institution Building

34.   Joining regional groups like IORA, IONS, and CSC helps small states boost their voice and reduce dependence. Mauritius and Seychelles push for the Blue Economy and maritime safety through IORA (Ramtohul, 2018). Sri Lanka uses CSC to address security issues like terrorism and trafficking with regional partners. Multilateralism gives small states legitimacy and protection, helping them resist pressure from major powers while showing commitment to cooperation.

Maritime Cooperation and Security Partnerships

35.   Maritime security cooperation is vital, as these countries depend on the ocean. Joint naval exercises, information sharing, and surveillance help tackle piracy and trafficking. Seychelles and Mauritius work with EU, India, and the US in anti-piracy operations (Doyle, 2020). Sri Lanka and Maldives also participate in regional maritime security training and search & rescue efforts. These partnerships build trust, increase deterrence, and show these small powers as responsible security actors.

Soft Power and Normative Leadership

36.   Small powers use soft power through culture, tourism, peace diplomacy, and environmental advocacy (Nye, 2004). The Maldives leads in climate change diplomacy using vulnerability as moral influence. Seychelles

promotes the Blue Economy (UNDP, 2022). Oman uses its history and moderation reputation to build ties. Sri Lanka hosts international maritime events to raise its profile. Cultural and diplomatic strengths turn into strategic influence.

Economic Diversification and Resilience

37.   Small powers reduce risks by diversifying economies beyond single sectors or markets. Mauritius transformed from sugar dependence to finance, tech, and logistics (Subramanian, 2019). Oman's Vision 2040 aims to reduce oil reliance. Seychelles and Maldives develop sustainable tourism and ocean innovation. Economic resilience strengthens political independence and strategic stability.

Niche Diplomacy and Coalition Building

38.   Many small states focus on special areas where they excel. Seychelles leads ocean sustainability, Oman in mediation, Sri Lanka in maritime education. This creates reputational strength beyond size (Cooper, 2011). They also build coalitions like CSC, IORA, and AOSIS to increase bargaining power. Collective action turns weakness into strength.

CONCLUSION

39.   Small states in the Indian Ocean Region (IOR) the Maldives, Mauritius, Seychelles, Sri Lanka, Oman, and Djibouti demonstrate that strategic significance is not determined by size, population, or military might. Instead, their influence derives from geography, diplomatic agility, and innovative approaches toward defense, economic development, and the environment. By strategic hedging, multilateral engagement, maritime cooperation, and soft power, these nations can exert disproportionate leverage in a region becoming increasingly saturated with great powers.

40.   The case studies reveal patterns of repetition. Sri Lanka balances India, China, and the United States while utilizing its ports for economic and security advantage. Maldives oscillates between exposure to climate and strategic competition to become a Geo-strategic and moral force. Mauritius and Seychelles employ maritime management and environmental interactions to enhance regional power, while Oman demonstrates the benefits of being neutral and a mediator. Djibouti, as small as it is, illustrates the strategic significance of geographical choke-points and multi-power presence. Collectively, these states illustrate the capacity of small states to function as stabilizers, norm entrepreneurs, and cooperation facilitators.

41.   However, small powers face formidable challenges. Economic vulnerability, military weakness, global warming, institution constraints, and internal political instability all constrain their independent action. Yet, such weaknesses also tend to trigger strategic ingenuity, which forces small states to devise innovative balancing responses, participate in regional mechanisms, and develop niche capability.

42.   In the days to come, security architecture of the Indian Ocean would be enhanced by cooperative and inclusive governance under the leadership of small powers. Regional and collective maritime domain awareness, joint capacity building, environmental regulation, and normative guidance will not only enhance their agency but also contribute to a stable and secure regional order. The histories of these states underscore a greater truth: in the multi-polar and interdependent Indian Ocean, strategic imagination, flexibility, and agency are more important than size. Enabling and acknowledging small powers is therefore essential to the building of a peaceful, durable, and sustainable maritime order in the 21st century.

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EMERGING MARITIME THREAT LANDSCAPE IN THE INDIAN OCEAN REGION AND SHIFT TO PROACTIVE DEFENCE POSTURE THROUGH SYNERGY

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IOR and Strategic Context

1.   The Indian Ocean Region (IOR) has emerged as a critical global maritime space in the 21st century, underpinning global trade, energy security and geopolitical competition (Kunjumon, 2024). The IOR is bordered by 38 littoral and island nations and is intersected by some of the world's most crucial Sea Lanes of Communication (SLOCs), making it both strategically vital and increasingly contested (Yadav, 2024). Geographically, the IOR is the third-largest ocean globally, covering 20% of the Earth's surface (Premarathna, 2021). The region is a central hub for energy resources, contributing around 40% of the world's offshore oil production (Gupta, 2025). Furthermore, approximately 50% of the world's daily oil consumption is transported through the Indian Ocean, utilizing choke-points like the Strait of Hormuz and the Straits of Malacca (Gupta, 2025). The stability of this domain is necessary for strategic interests, given that approximately 75% of the world's maritime trade passes through the IOR (Gupta, 2025; Weligamage, 2024).

Interdependencies in IOR

2.   The economic, informational and logistical interdependencies within the IOR and globally magnify the impact of any single security incident.

>   a.   **Geoeconomic Linkages**.   The security and political dynamics of key regions (Persian Gulf, South Asia, Southeast Asia, and Eastern Africa) are interactively linked, crafting deeply interdependent economies. Disruption to the vital SLOCs in the IOR, where the global oil and trade lifelines are situated, threatens the energy security and economic foundations of numerous nations.

>   b.   **Information and Data Flow**.   99% of international digital traffic moves by undersea cable. This informational reliance means that the sabotage or accidental severing of these cables has widespread economic and security consequences, degrading critical services beyond immediate physical damage.

c. **Vulnerability of Smaller States**. While larger nations like India may be able to absorb the initial financial shock of disruption, the overarching impact on smaller nations in the IOR could be significantly worse due to their limited capacity.

Vulnerability of IOR

3. The geographical structure and economic centrality of the IOR make it uniquely susceptible to these evolving threats.

a. **Centralized Vulnerability**. Strategic choke points and commercial arteries converge here, making them single points of failure that pose new asymmetric threats.

b. **Vast and Under-Policed Areas**. The sheer size of the Indian Ocean means vast regions remain 'unpoliced,' particularly the central IOR. This stretches governance and enforcement capacities thin, contributing to an exponential rise in illicit maritime activities.

c. **Shift to Blue-Water Threats**. The region is now vulnerable to long-range, technology-driven maritime aggression (missiles/ drones) that signal a shift toward "blue-water confrontation zones," far exceeding the reach of local coastal enforcement.

d. **Geopolitical Focus**. The IOR has emerged as a critical frontier for foreign policy outreach and geopolitical competition, attracting rivalries that spill over into the maritime domain.

Threat Taxonomy: Conventional and Modern Maritime Threats

4. The IOR security environment encompasses a broad spectrum of challenges, traditionally categorized as conventional (traditional) and modern (emerging) threats (Pandey, 2023; Weligamage, 2024).

5. **Conventional Maritime Threats**. These longstanding challenges include piracy, armed robberies at sea, terrorism, human trafficking, drug trafficking, illicit trafficking of wildlife and Illegal, Unreported and Unregulated (IUU) fishing (Kunjumon, 2024; Premarathna, 2021). Piracy is defined under UNCLOS Art. 101 by four essential elements, notably requiring an act of violence committed for private ends by one ship against another on the high seas. Additionally, regional issues such as climate change and environmental degradation pose major security concerns.

6. **Modern and Emerging Asymmetric Threats**. These threats are defined by technology-driven asymmetry which include militarization and proliferation of autonomous systems, including Unmanned Aerial Vehicles (UAVs/drones), Unmanned Surface Vessels (USVs) and Unmanned Underwater Vehicles (UUVs). Attacks targeting navigation systems, port infrastructure and Computer-Based Systems (CBS) aboard ships (both IT and OT systems). Attacks on Critical Undersea Infrastructure Threats targeting fiber-optic cables, energy pipelines, and other sub-sea infrastructure. The nature of maritime warfare is shifting "in real time" due to unmanned and

autonomous platforms, including airborne, surface and undersea systems, which are revolutionizing the conduct of maritime conflict.

Modern Threat Dimensions

7.   Modern threats are defined by the convergence of autonomy, lethality and asymmetry enabling non-state and proxy actors to achieve strategic disruption with relatively low investment.

   a.   **Drones (UAVs)**.   UAVs are used for reconnaissance, kamikaze strikes, and loitering munitions. They offer characteristics highly suited for asymmetric attacks, such as deep penetration capabilities, low radar cross-section, zero risk for pilots and the ability to gather real-time information. Drone attacks, alongside missile strikes, constituted a significant portion of the 273 hybrid maritime security incidents tracked by the IFC-IOR in 2024.

   b.   **Unmanned Surface Vessels (USVs)**.   USVs fuse autonomy and lethality, revolutionizing maritime conflict. They can operate autonomously for up to 48 hours and coordinate in swarms of up to 15 or even 30 units. The cost asymmetry is "staggering," allowing a hostile actor to spend $2 million on USVs to threaten shipping worth billions.

   c.   **Unmanned Underwater Vehicles (UUVs)**.   UUVs, alongside USVs and airborne platforms are integral to the next generation of maritime conflict, particularly through gray-zone tactics. Military USVs/ UUVs pose a distinct threat to shipping.

   d.   **Threats to Undersea Cables and Infrastructure**.   The security of undersea infrastructure, particularly fiber-optic cables and sub-sea energy pipelines, has emerged as one of the most pressing and under-appreciated dimensions of modern maritime security. Over 95% of the world's international data traffic including Internet communications, financial transactions and defense coordination flows through approximately 450 active submarine cables spanning more than 1.4 million kilometers across the Ocean floor. The Indian Ocean alone hosts several of these strategic arteries, linking East Africa, the Middle East, South Asia and Southeast Asia. Any disruption to this network could instantly paralyze global communications and inflict economic damage.

   e.   **Maritime Cyber Warfare**.   Cyber risks measure the extent to which Computer Based Systems (CBS), including Information Technology (IT) and Operational Technology (OT) systems, are threatened, potentially resulting in operational, safety or security failures. Cyber attacks can disable navigation or port operations, or covertly facilitate kinetic attacks. Effective cyber risk management must ensure the confidentiality, integrity and availability of data and systems.

8.   The evolving threats are clearly demonstrated by recent incidents and statistical trends, particularly those impacting global trade corridors.

a.   **Red Sea Crisis (2023–2024)**.   The Houthi campaign using drones and ballistic missiles showcased how non-state actors can disrupt global trade routes and naval operations in real-time.

b.   **MV Pumba Attack (Jan 2024)**.   A sophisticated attack orchestrated by a swarm of USVs, moving too fast and too small for traditional vessel identification.

c.   **MT Marlin Luanda (2024)**.   This incident involved Houthi attacks on a foreign-flagged merchant vessel in the Western IOR, resulting in a massive on-board fire. The coordinated response by the Indian Navy earned the 2024 IMO Bravery Citation.

d.   **MV Isa Star (Dec 2024)**.   The Panamanian flagged vessel suffered a catastrophic on-board explosion in the Red Sea. A coordinated multinational response rescued all 15 Indian nationals and 5 other crew members.

e.   **The Nord Stream pipeline explosions (2022)**.   The Baltic Sea provided a stark demonstration revealing how undersea infrastructure, once considered secure by obscurity can be deliberately targeted to achieve geopolitical and economic coercion. Similarly, in 2023, undersea cable disruptions near Taiwan and in the Red Sea caused massive Internet outages, delaying financial transactions and impeding emergency communications, highlighting the asymmetric potential of such attacks even without open conflict.

9.   Despite numerous cooperative mechanisms, the ability to counter emerging threats is hampered by fragmentation in governance, technology and doctrine.

a.   **MDA and Surveillance Gaps**.   MDA coverage remains patchy in several parts of the IOR. There is an absence of a concrete approach to maritime surveillance and suboptimal deployment of resources for this task.

b.   **Legal and Governance Fragmentation**.   Fragmented legal authorities hinder effective cross-border pursuit and prosecution of maritime crimes. There is a crucial vacuum regarding a comprehensive regional security architecture tailored to address non-traditional threats.

c.   **Doctrine and Cooperation Deficiencies**.   The region suffers from limited joint doctrine for addressing low-intensity asymmetric maritime threats, such as USVs, drones, and undersea sabotage. Weak partnerships are observed among existing maritime safety forums like IONS and the Djibouti Code of Conduct Information Sharing Centres (DcoC). The infrequency of regional maritime exercises involving navies and coastguards also highlights an operational gap.

SWOT Analysis for the IOR

10.   A structured analysis reveals the intrinsic potential and external pressures defining the IOR security posture.

Dimension	Assessment
Strengths	Established cooperation platforms like Indian Ocean Rim Association (IORA), Indian Ocean Naval Symposium (IONS) and bilateral/trilateral naval exercises (e.g. Malabar, MILAN). Major navies possess blue-water capabilities and are promoting cooperation through shared doctrines like SAGAR.
Weaknesses	Fragmented Maritime Domain Awareness (MDA) and variable naval capacity across littoral states. Limited joint doctrine for low-intensity asymmetric maritime threats (USVs/drones/undersea sabotage). Legal gaps for cross-border enforcement and prosecution of non-state actors.
Opportunities	Expanding interoperable information sharing to create a common operating picture. Investing in resilient undersea cable routing and rapid repair capacity, possibly through public-private partnerships. Utilizing IFC-IOR and Quad initiatives to share dark vessel data and enhance surveillance. Promotion of conference diplomacy in to policy formulating forums (e.g. Galle Dialouge Maritime Conference).
Threats	Continued proliferation of low-cost autonomous weapons and cyber attacks. Risk of escalation from localized attacks to wider military confrontation. Economic disruption from route diversions and critical infrastructure sabotage.

Table 1: SWOT Analysis

11.   The analysis clearly underscores that while the Indian Ocean Region possesses significant naval capability and strategic potential, its true strength lies in the collective utilization of those assets through synergy. No single nation, regardless of its naval power or technological sophistication, can single-handedly secure the vast and complex maritime expanse of the IOR. The interlinked nature of modern maritime threats ranging from unmanned and cyber intrusions to terrorism and piracy transcends national boundaries, making unilateral responses ineffective and unsustainable. Therefore, cooperation and coordination emerge not merely as desirable options, but as strategic imperatives. Synergy enables the pooling of intelligence, harmonization of operational doctrines, optimization of limited surveillance resources and establishment of rapid response mechanisms that benefit all littoral states. By fostering trust, interoperability and shared responsibility, a coordinated regional security architecture can transform isolated national efforts into a cohesive defense network. In essence, only through sustained cooperation and synchronized action can the IOR nations collectively deter, detect and defeat the multidimensional threats confronting their shared maritime future.

Foundations for Synergistic Solution

12.   A synergistic security solution requires transitioning from exclusive, state-centric security models to inclusive, cooperative frameworks based on shared trust and interoperability. synergetic maritime security framework rests on the premise that no single nation, however capable, can independently manage the breadth of challenges emerging across the Indian Ocean Region. The transnational and technologically diffused nature of maritime threats from piracy and terrorism to drones, unmanned surface vessels and cyber attacks demands a cooperative architecture built on mutual trust, transparency and interoperability. This shift calls for a transition from traditional, state-centric security models toward an inclusive, networked approach where information, capabilities, and responsibilities are shared for collective benefit. The following elements form the essential foundations for such a synergistic solution.

   a.   **Trust Building**.   Even the most advanced surveillance systems and coordination mechanisms remain underutilized due to fears of information leakage, political exploitation or intelligence misuse. In the context of the IOR a region of immense diversity in political systems, economic capacity and strategic orientation trust building is not a peripheral objective but a central prerequisite for effective collaboration. It involves developing transparent communication channels, establishing standardized security protocols and reinforcing mutual assurances that shared intelligence will be used responsibly. Confidence-building measures such as joint exercises, port calls, training exchanges and joint patrols can help foster interpersonal and institutional familiarity. Furthermore, regional organizations like IORA, IONS and the Information Fusion Centre–Indian Ocean Region (IFC–IOR) can serve as trust incubators further forums like Galle Dialogue international maritime conference could be upgraded to policy formulating forums. Ultimately, sustained trust allows information-sharing and operational synergy to occur without fear or hesitation, transforming mutual suspicion into mutual strength.

   b.   **Shared Situational Awareness**.   Effective maritime security begins with a shared and accurate understanding of the operational environment. Shared situational awareness refers to the establishment of a unified, real-time maritime picture that integrates surveillance, intelligence and operational data from multiple national and regional sources. This can be achieved through inter-operable data-sharing platforms that link regional fusion centers and national maritime domain awareness networks into a cohesive, secure information ecosystem. For the IOR, such a system could connect existing hubs like the IFC–IOR in India, IFC-Sri Lanka , the RMIFC in Madagascar and the Djibouti Code of Conduct Information Sharing Centre, creating a truly interconnected network. This "common operating picture" would enable early warning of suspicious vessel movements, cyber intrusions, or unmanned system deployments, allowing states to coordinate responses before threats escalate. Bilateral and multilateral data-sharing agreements are vital to this process. Over time, shared situational awareness not only enhances operational efficiency but also reinforces strategic trust as transparency in information exchange builds credibility and demonstrates commitment to collective security.

c.   **Burden Sharing**.   A synergistic approach cannot succeed unless the responsibilities and costs of maritime security are equitably distributed. Burden-sharing ensures that both large and small states contribute proportionately according to their capacities, thereby enhancing collective resilience without overstraining individual nations. In practical terms, this involves pooling resources for naval escorts, coordinating patrol schedules to eliminate redundant deployments and establishing joint maintenance and repair funds particularly for critical undersea infrastructure such as submarine cables and offshore installations. Shared logistics hubs, common training facilities and rotational command structures can further institutionalize this principle. By spreading financial and operational responsibilities, burden-sharing not only optimizes resource utilization but also promotes inclusivity, allowing smaller littoral states to play meaningful roles in regional security. Moreover, shared investments generate shared ownership a psychological and political factor that strengthens commitment to cooperative frameworks. In the long term, burden-sharing contributes to strategic stability, as collective security becomes both a shared duty and a shared achievement.

RECOMMENDATIONS

13.   To translate the conceptual framework of synergy into actionable outcomes, it is imperative to establish concrete cooperative mechanisms that are both pragmatic and regionally inclusive. While strategic intent and shared understanding provide the foundation, real progress depends on institutional structures capable of sustaining long-term collaboration. The Indian Ocean Region requires mechanisms that bridge dialogue with execution linking naval coordination, legal harmonization and technological governance under a unified security vision.

a.   **Synergistic Maritime Architecture**.   Indian Ocean Rim Association (IORA) provides the diplomatic and policy backbone for a holistic maritime security approach, bridging IONS operational focus with broader political, economic and developmental dimensions. IORA frameworks for blue economy management, maritime safety, disaster response and information sharing create an enabling environment for long-term regional collaboration. Together, IORA and IONS form the dual engines of cooperative security in the IOR. Serving as a vital intellectual and diplomatic bridge between the two, the Galle Dialogue International Maritime Conference, hosted by the Sri Lanka Navy, has emerged as a premier platform for strategic engagement and leadership. It convenes naval chiefs, policymakers and maritime scholars to debate and refine collective approaches to evolving security challenges. By synchronizing the efforts of IONS, IORA and the Galle Dialogue, the Indian Ocean Region can institutionalize trust-based synergy, enabling nations to move from fragmented national responses toward a unified, proactive and rules-based maritime security architecture that safeguards shared interests across this vital oceanic expanse.

b.   **New Code for Autonomous Systems**.   With the accelerating proliferation of Unmanned and Autonomous Surface and Underwater Vehicles (USVs/UUVs), there is an urgent requirement for a comprehensive civil–military "Code for the Operation of Autonomous Maritime Systems" applicable across the Indian Ocean Region. This proposed code should establish clear universal definitions for unmanned systems, as the absence of common terminology leads to operational ambiguity and legal uncertainty in

encounters at sea. The code must also stipulate mandatory safety distances, standardized transponder protocols and fail-safe remote data-link standards to prevent collisions, misidentification or loss of control in congested waters. Moreover, it should outline response and recovery mechanisms in case of system malfunction or capture by hostile entities, ensuring accountability and transparency in the deployment of autonomous assets. Modeled partly on international aviation safety codes, this framework would not only enhance safety and predictability but also reduce escalation risks in contested zones, fostering a culture of responsible innovation in the maritime domain.

c.   **IOR Maritime Security Compact**.   To operationalize sustained cooperation and ensure actionable outcomes, the establishment of an Indian Ocean Region Maritime Security Compact (IOR-MSC) is proposed. This arrangement would function as a structured mechanism for data sharing, coordinated escorts and resource pooling among signatory states. Under this compact, high-risk maritime corridors particularly choke-points like the Strait of Hormuz, Bab el-Mandeb and the Malacca Strait would be secured through shared escort duties and synchronized patrol schedules, minimizing duplication and optimizing regional naval presence. The IOR-MSC would also include provisions for maintaining a pooled rapid-repair capability for critical maritime infrastructure such as undersea cables, port facilities and offshore energy installations, ensuring rapid restoration in the aftermath of sabotage or natural disasters. Additionally, the compact would institutionalize information-sharing protocols through secure digital networks linked to the Information Fusion Centre–Indian Ocean Region, providing near-real-time situational awareness to member states. By integrating both hard security (naval operations) and soft security (information and infrastructure resilience), the IOR-MSC would serve as a functional cornerstone of collective maritime security in the region.

d.   **Legal Harmonization**.   Effective maritime security cooperation cannot be sustained without legal and regulatory coherence among regional partners. Presently, disparities in national laws concerning drug trafficking, human smuggling, IUU fishing and cyber operations hinder collective enforcement efforts. A coordinated regional initiative is essential to harmonize legal frameworks under a shared set of norms, drawing lessons from the evolution of anti-piracy frameworks developed in response to Somali piracy between 2008 and 2013. This should include the ratification and uniform interpretation of key international conventions such as the United Nations Convention on the Law of the Sea (UNCLOS) and the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation (SUA Convention). Furthermore, member states should work towards developing model legislation to criminalize and prosecute emerging offenses like cyber attacks on maritime infrastructure and unauthorized deployment of autonomous systems. Establishing mutual legal assistance treaties (MLATs) and extradition arrangements within the IOR framework would ensure that offenders cannot exploit jurisdictional loopholes. Ultimately, harmonized legal standards would provide the normative foundation for coordinated regional responses, ensuring that cooperative mechanisms are not merely operational, but also legally enforceable and resilient against future maritime security challenges.

CONCLUSION

14.   The Indian Ocean Region is at a critical juncture where the proliferation of low-cost, high-impact autonomous technology and geopolitical flux demand a fundamental shift from reactive defense to an anticipatory posture. The security landscape is now characterized by a dual threat spectrum resurgent classical piracy coupled with technologically enabled hybrid assaults resulting in significant systemic risk. The next disruption at sea may well be triggered by an underwater drone or a swarm of aerial vehicles, rather than a conventional warship.

15.   The pathway to a stable and resilient IOR lies in cultivating a collaborative maritime ecosystem anchored on institutional synergy. The Indian Ocean Naval Symposium must evolve into a doctrinal and tactical incubator, driving operational harmonization and standardized countermeasures, while the Indian Ocean Rim Association continues to serve as the policy and economic backbone of regional security cooperation. Complementing both, the Galle Dialogue International Maritime Conference remains an invaluable bridge for diplomacy and thought leadership, strengthening trust among regional and extra-regional actors. Together, these platforms embody the principles of collective preparedness and cooperative security. By aligning sophisticated maritime domain awareness, harmonizing legal frameworks and investing in technological resilience, the Indian Ocean can emerge as a model of synergetic maritime governance , one that ensures the uninterrupted flow of global commerce and preserves the ocean's role as a conduit of peace, stability and shared prosperity.

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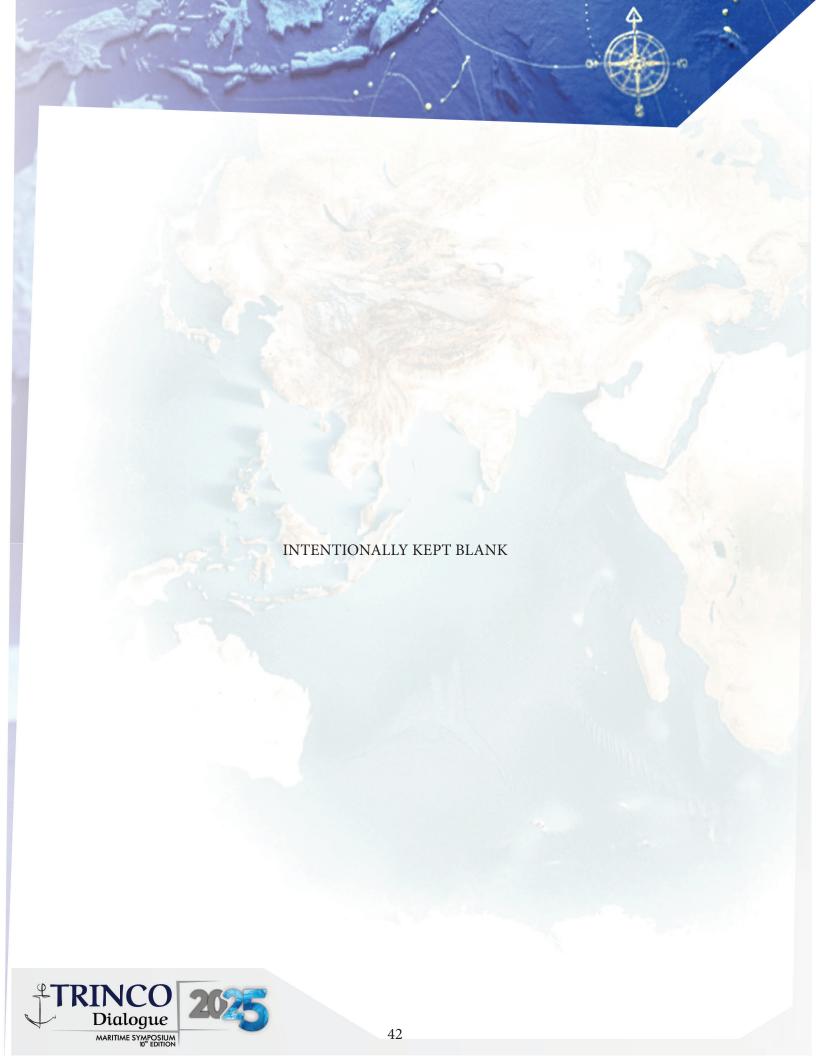
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WHY IT NEEDS STRENGTHENING REGIONAL MARITIME GOVERNANCE AND COLLECTIVE SECURITY VIA INFORMATION SHARING AND MARITIME DOMAIN AWARENESS (MDA) IN INDIAN OCEAN REGION

Lieutenant Commander (N) PMTS Bandara
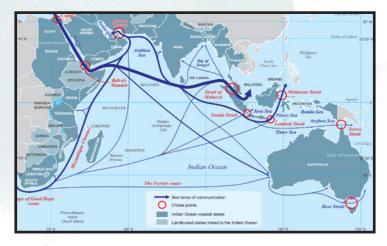BSc (NMS)Hons, EDip in Mgt (IMSL), Dip in Mgt (IMSL), MIM(SL)

"MDA is most useful if it is attuned to its limits, identifies the tasks and areas where it can make a difference, and provides readily usable knowledge to make informed decisions."
RAdm David J. Dorsett (USN)

INTRODUCTION

1.   The Indian Ocean, extending from the eastern coast of Africa to the western shores of Australia, has emerged as a crucial area in the geopolitical strategies of significant global powers. Its strategic significance is highlighted by its function as a channel for international commerce, a venue for naval manoeuvres, and a center of geopolitical rivalry. The Indian Ocean, historically a vital maritime route, currently facilitates a significant share of the world's oil and commercial cargo, rendering it essential for global economic stability. The ocean's principal maritime choke-points, including the Strait of Hormuz, Bab el-Mandeb, and Malacca Strait, are essential for the unimpeded transit of energy and commodities, thereby attracting the strategic interests of nations Such as the United States China and India.

Figure 1: Indian Ocean Region
Source: abhipedia.abhimanu.com

2.   In recent years, the Indian Ocean has experienced heightened military and economic activity, indicative of the escalating rivalry among these nations. The United States, possessing established naval supremacy and strategic installations, seeks to safeguard these crucial maritime routes and uphold its regional influence. China aims to extend its influence via the Belt and Road Initiative (BRI) by enhancing port infrastructure and safeguarding its maritime trade routes. India, viewing the Indian Ocean as its strategic domain, has enhanced its naval capabilities and established alliances to counter China's expanding influence. This complex involvement emphasizes the Indian Ocean's importance to the foreign policies of these major powers, illustrating its role in influencing the geopolitical framework of the 21st century (Gulshan Majeed et al., 2024).

3.   The rationale for the Indian Ocean's superiority over other oceans is as follows: The Indian Ocean contains 16.8% of the globe's confirmed oil reserves and 27.9% of confirmed natural gas reserves. In 2017, the economies of the Indian Ocean contributed 35.5% to global iron production and 17.8% to world gold production. This region accounted for 28% of global fish capture in 2016, exhibiting a consistent increase since the 1950s. This expansion has established a robust basis for export sectors in multiple nations. In 2017, Indonesia and India collectively represented approximately 4.5% of global frozen fish exports. The region's wealth of natural resources, among other factors, has enabled trade driven growth (Kannangara et al., 2018).

4.   Maritime governance encompasses the strategic management and regulatory oversight of maritime sectors, including port and vessel operations. It involves developing and implementing policies, distributing resources, and overseeing maritime operations to guarantee safety, security, efficiency, and environmental sustainability (Anon, 2025). Further Maritime governance is defined as a comprehensive strategy for managing the world's oceans and seas. The Indian Ocean Region (IOR) accommodates one-third of the global population and facilitates nearly fifty percent of international maritime transport. Furthermore, this region is home to substantial natural resources. The security of critical choke-points in this region is essential to the global economy. Hence maritime governance is most importance in IOR (Sears, 2022).

5.   The concept of maritime security is multi-faceted and constantly evolving to meet changing threats and challenges. While there is no universally accepted definition, it generally includes the protection of a state's maritime interests, the prevention of threats to maritime safety, and the protection of the marine environment. Maritime security holds importance for security as it plays a crucial role in maintaining a secure marine environment. It also has implications as global businesses rely heavily on marine traffic that must be protected from piracy, smuggling and other illegal activities. Furthermore, environmental preservation is closely linked to security due to risks such as oil spills, illicit fishing and other threats that can harm the ecosystem (Pandey & Prashanthi, 2023).

6.   As according to (Premarathna, 2021) within the Indian Ocean region Maritime security threats encompass piracy, human trafficking, drug trafficking, terrorism, and other non-traditional security challenges. In response to these threats, interactions regarding marine safety have intensified among national navies. Ensuring maritime safety has been a major hurdle for current naval forces. The challenges and threats in the Indian Ocean region are both conventional and non-conventional. The involvement of regional and extra-regional states is crucial in addressing these maritime threats and challenges. With the expansion of economic activities in the maritime domain, states must not overlook the threats posed by maritime terrorism, piracy, marine pollution, illegal fishing,

irregular migration via ocean routes, small arms trafficking, and the illicit trade of narcotics and humans across the seas. Addressing these threats is intricate and challenging due to the expanse of the maritime domain, varied stakeholders, absence of international consensus, and constrained resources. Notwithstanding these challenges, maritime security is essential to the global economy and the welfare of billions of individuals. Countries must collaborate to improve maritime security and safeguard collective interests.

7.   To counter and fight against the maritime security threats in the region it should be well aware about the regional awareness or must have excellent knowledge about maritime domain awareness. International Maritime Organization (Anon, 2025) define that "Maritime Domain Awareness (MDA) is the effective understanding of anything associated with the maritime domain that could impact security, safety, the economy or the marine environment. "However as according to (Chawla & Gopal Suri, 2023) MDA denotes the requirement for situational awareness at sea, which entails being aware of the positions and intentions of all maritime entities across all dimensions on, above, and below the water. MDA is progressively essential for the secure and effective execution of maritime operations, which serve as a significant driver of global economic expansion. Understanding both the natural fluctuations of the seas and the potential challenges posed by human activity is essential for safeguarding maritime security.

8.   Due to the vast area of the Indian Ocean Region and the prevailing challenges in addressing them, it is of utmost importance to have MDA. However, to tackle the aforementioned challenges and threats, no single country can manage it alone. As per Kumar (2025), information sharing is crucial for establishing effective MDA. It entails transmitting precise, real-time information that can be transformed into actionable intelligence. This is accomplished through explicit communication, coordination, and trust among stakeholders, including navies, coast guards, port authorities, and maritime security agencies. Disseminating information such as vessel movements, incidents, potential threats, and weather conditions improves situational awareness, facilitating informed decision-making and coordinated responses. It promotes trust, transparency, and collaboration among nations. Therefore, the dissemination of information is essential to enhance collective maritime security.

9.   The Indian Ocean holds strategic significance and presents various maritime security challenges, necessitating a coordinated regulatory framework and collective security measures. This paper examines how MDA can significantly strengthen local maritime governance frameworks in the Indian Ocean by facilitating enhanced information sharing and technological integration. The region faces numerous maritime security risks, including piracy, illegal fishing, territorial disputes, and environmental degradation, necessitating a collaborative response from the coastal nations.

REGIONAL MARITIME COOPERATION AND EXISTING FRAME WORKS

10.   The Indian Ocean has a number of frameworks that promote regional maritime collaboration, including the Indian Ocean Rim Association (IORA) that deals with maritime safety and security. Other significant plans involve the Djibouti Code of Conduct (DCoC) in fighting piracy, and another one is the CRIMARIO II project initiated by the European Union that improves information sharing and awareness of the seas in the Indo-Pacific. The transnational maritime crime, marine resources, and safety through coordinated operations are the goals of cooperation efforts to enhance safety and promote by means of harmonization of the law (Iqbal, 2023).

11. Few of Key frameworks can be depicted as follows;

    a.   **Indian Ocean RIM Association (IORA)**. A regional organization aimed at the development of collaboration and essential relations between the countries which are its members. Maritime Safety and Security is one of the priority areas of the IORA Action Plan in 2022-27 (Anon, 2025).

    b.   **Indian Ocean Naval Symposium (IONS)**. A geographically-exclusive inclusive-forum in which a range of security dialogue will be held by navies of the littoral states of the Indian Ocean. It is a place where one can create strategic trust by establishing a collaboration on unconventional threats (Khurana, 2008).

    c.   **Djibouti Code of Conduct/Jeddah Amendment (DCoC/JA)**. It is a program that aims at fighting piracy, armed robbery and other forms of illegal maritime practices within the Western Indian Ocean and Gulf of Aden. The latest launch of a new joint maritime operations framework was possible in this initiative, with the support of the International Maritime Organization (IMO) and other organizations (Anon, 2017).

    d.   **CRIMARIO II**. A European Union initiative to improve maritime domain awareness (MDA) and exchange of information in the Indian-Pacific, expanding on the success of the existing initiative which covered the Western Indian Ocean (Bueger, 2017).

STRENGTH MARITIME GOVERNANCE THROUGH SHARED MDA

12. Sri Lanka possesses a coastline of 1,340 km, an Exclusive Economic Zone of 510,000 km2 and a Search and Rescue Region spanning 1,778,060 km2 approximately 27 times its landmass. Annually, over 60,000 vessels traverse the southern extremity of Sri Lanka, navigating between the eastern and western regions of the Indian Ocean. The Indian Ocean Region encounters non-traditional maritime safety and security challenges as well. Therefore, Sri Lanka needs to ensure the absence of illicit activities in its maritime domain and the protection of seafarers.

13. Recognizing the imperative for an Information Fusion Centre (IFC) to oversee maritime operations in the IOR, the IFC Colombo was inaugurated at the Navy Headquarters facility. The IFC Colombo promotes cooperation, collaboration, and the exchange of maritime information among local and international stakeholders to improve Maritime Domain Awareness. IFC Colombo has been at the vanguard of delivering actionable intelligence to regional navies, coast guards, and state maritime agencies beyond local counterparts. Additionally, IFC Colombo shares information about maritime dangers, problems, and events in the Exclusive Economic Zone (EEZ), including details on drug smuggling, human trafficking, illegal fishing, and poaching. The Maritime Rescue Coordinating Centre, staffed at SLN headquarters under the Director of Naval Operations, aids vessels in distress through all available means and disseminates information to stakeholders, thereby improving awareness of incidents in the region and contributing to the preservation of lives at sea.

14.   The IFC team consistently gathers information, performs surveillance, and continuously analyses pertinent data, utilizing various available resources and tools to improve maritime safety and security in their area of interest. Moreover, IFC Colombo plans to enhance its offerings and maritime intelligence in collaboration with both local and international partners in the future (Anon, 2022).

15.   IFC Colombo is not a solo wolf in the desert it connects up with various local and international stakeholders and information sharing authorities. Such as India, Pakistan, Australia, Singapore and many other counties as well as local authorities.

<div align="center"><u>**CASE STUDY**</u></div>

16.   Following cases studies are depicting that how share MDA information Strength the maritime governance in the IOR.

Lorenzo Putha IV

    a.   The fishing vessel 'Lorenzo Putha IV' (Reg. No. IMUL-A-2590-CHW) reportedly departed Dikkowita Fisheries Harbour on 12th January 2024 with six fishermen on board and was subsequently hijacked by Somalian pirates while fishing in the Arabian Sea. On 27th January 2024 the Department of Fisheries and Aquatic Resources notified the Sri Lanka Navy of the situation and sought assistance to rescue the crew members and the trawler (Wickramasinghe, 2024).

    b.   During this time-frame, the Sri Lanka's Information Fusion Centre (IFC) and the Maritime Rescue Coordination Centre (MRCC) continuously observed the incident. They sustained ongoing communication with regional and international partners, guaranteeing the effective dissemination of pertinent maritime security information. This cooperative endeavor was essential for monitoring the circumstances and facilitating the eventual liberation of the vessel and its crew. Consequently, the Coast Guard Ship 'TOPAZ' successfully liberated the fishing vessel from pirate captivity on January 29, 2024, and safely rescued the six crew members of the trawler. During the operation, three pirates were apprehended. This favorable result underscores the significance of MDA and information-sharing systems in enabling prompt reactions to maritime security events.

Wan-Hai 503

    a.   The Wan Hai 503 incident, which occurred on 9th June 2025, off the coast of Kerala, India, involved an explosion and fire resulting in the loss of four crew members. The severely damaged vessel struggled to locate a secure harbour, and Indian authorities required its departure due to safety concerns. Initially, Hambantota International Port in Sri Lanka agreed to provide refuge but required an expensive performance bond, resulting in the plan's failure. The vessel, incapable of activating its Automatic Identification System (AIS), was towed by three tugs for several days while loitering between the Indian, Sri Lankan, and Maldivian EEZs without locating a port.

b.   During the crisis, IFC Colombo persistently observed the situation. It was detected the AIS not being activated, but via assistant unit AIS located the vessel and identified in first sight providing essential information to pertinent maritime and environmental authorities. The Wan Hai 503 posed an environmental threat due to its cargo and damage; consequently, IFC Colombo ensured that the situation was conveyed to pertinent it monitored until ship secured at Port of Jebel Ali in the UAE this incident demonstrating the efficacy of Maritime Domain Awareness (MDA) in orchestrating responses and safeguarding safety. The partnership among Sri Lanka, India, and the UAE facilitated a secure resolution, demonstrating that prompt and precise information exchange can avert substantial environmental and humanitarian crises (Hand, 2025).

Building Trust and Enhancing Regional Collaboration

17.   Building trust among Indian Ocean nations is essential for efficient maritime governance. Shared Maritime Domain Awareness (MDA) systems are crucial for promoting transparency in maritime operations, (Senaratne, 2020) thus improving collaboration. The IFC of the Sri Lanka Navy exemplifies how Maritime Domain Awareness (MDA) can enhance collaboration by supplying real-time data to both regional and international stakeholders. Moreover, collaborative exercises and training initiatives are essential for enhancing interoperability and comprehension among regional forces. These exercises foster practical collaboration, enable nations to synchronize their maritime security policies, and cultivate interpersonal relationships that enhance trust. Surmounting political obstacles, including sovereignty issues and territorial conflicts, continues to pose a challenge (Muhammad et al., 2025). Nonetheless, confidence-building measures, including the UNCLOS dispute resolution mechanisms, have demonstrated efficacy in conflict resolution and the promotion of cooperation (Iqbal, 2023).

RECOMMENDATIONS

18.   To enhance regional maritime governance and collective security, several strategic actions are proposed as follows;

a.   **Technological Investment**. Technological investments in MDA infrastructure should be prioritized. Upgrading satellite systems, radar networks, and integrating AI for predictive analysis will improve real-time monitoring and response capabilities.

b.   **Capacity Building**.   Capacity-building initiatives are crucial for ensuring that all Indian Ocean nations can effectively utilize MDA tools. This includes training programs for regional maritime agencies and creating maritime academies to develop shared expertise in maritime security.

c.   **Legal and Operational Frameworks**.   This should be strengthened to mandate information sharing and collaboration across borders. This could include the adoption of regional maritime security laws that support coordinated responses to maritime threats.

d.   **International Partnership**.   Fostering international partnerships with bodies like the IMO and UNODC is essential to integrate global best practices and bring international support to regional efforts.

e.   **Data Analyzing via Tools**.   Although most counties and organizations provide numerous MDA tools and specialized operators, they primarily focus on data collection and must develop suitable methods for analyzing data from regional perspectives.

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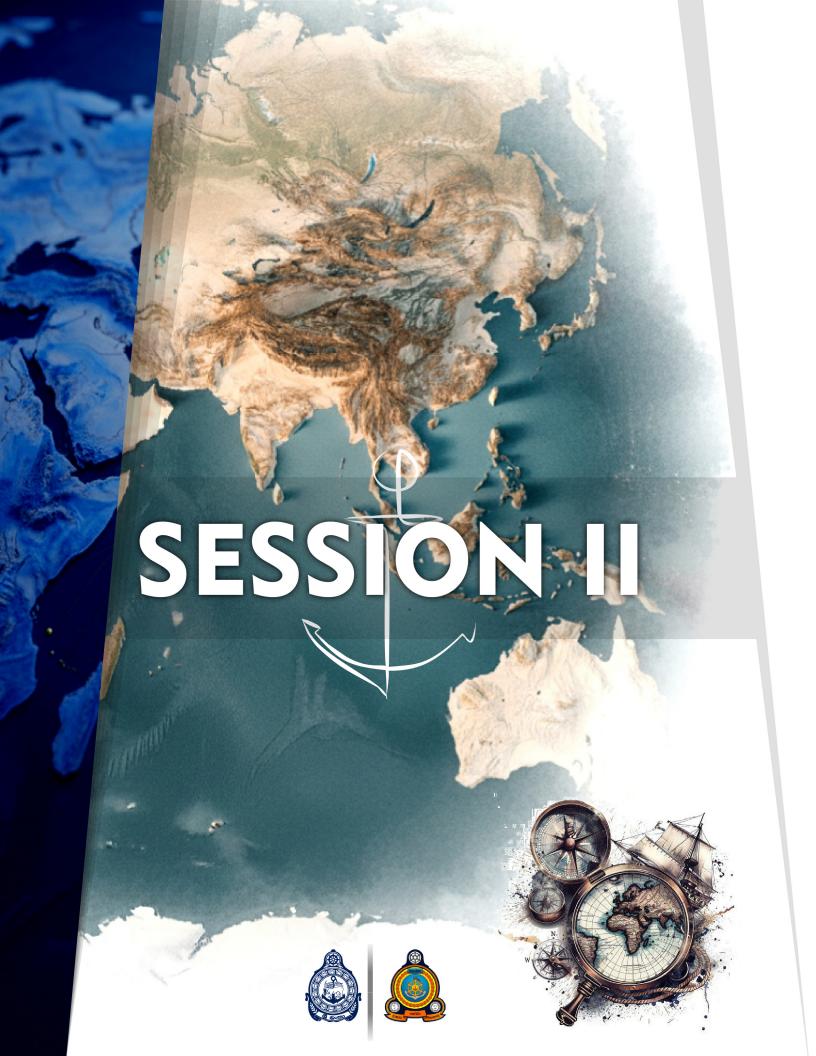
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SESSION II

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SECURING MARITIME COMMONS-INTEGRATION OF TECHNOLOGY FOR THE STABILITY OF INDIAN OCEAN REGION

Lieutenant Commander (E) MASL Wijerathne
MTech , BSc (Hons) Mar Eng, AMIE (SL)

Lieutenant Commander (E) RAPH Ranasinghe
MTech , BSc (Hons) Mar Eng, AMIE (SL)

"Technology, when coupled with cooperation, transforms oceans from arenas of rivalry into corridors of peace"
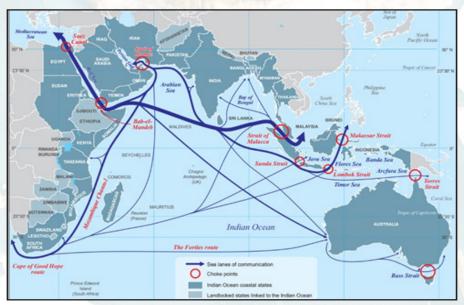***Admiral Arun Prakash (Retd), Indian Navy***

INTRODUCTION

1.   The Indian Ocean Region (IOR) is the third-largest oceanic region in the world, and it is a strategic maritime route connecting the world with the Asian region, Africa, and the Middle East. Almost 80% of all seaport oil trade and 40% of all foreign sea trade pass through this region (Baruah et al., 2023). The Indian Ocean has now become a test bed for regional and global power play, where geopolitical rivalries meet emerging maritime security challenges.

2.   The Strategic Competition and Geopolitical Realignments in the Indian Ocean: Implications of Regional Stability reflects the modern-day complications of maritime governance in the region. The emergence of new powers at sea, novel non-traditional threats, and climate-related issues have made the IOR a challenging region for maritime governance.

3.   As regional and non-regional countries seek valid economic and security interests, the lack of inclusive multilateral systems has increased instability in the IOR. Technological coordination at both domestic and regional levels, including surveillance infrastructure, Artificial Intelligence (AI), and satellite communications, offers a potential path towards deepening Maritime Domain Awareness (MDA) and supporting shared maritime security.

Maritime Commons in the Indian Ocean Region and its Importance

4.   The concept of maritime commons refers to the shared use and governance of sea areas that are not under the sovereignty of any single state, including international waters, sea lanes, and the seabed beyond national jurisdictions (United Nations, 2008). The IOR is one of the most essential international maritime commons, which serves 33 coastal and 12 landlocked states.

5.   The Straits of Hormuz, Bab el-Mandeb, and Malacca Straits are the key Sea Lines of Communication (SLOCs) included in the IOR and through which immense amounts of oil, gas, and manufactured products are transported daily (Kaplan, 2013). The Blue Economy in the region is based on the fisheries, seabed minerals, and marine biodiversity on which millions of people rely to make a living.

Figure 1: Sea Lanes and Littoral States of the IOR
Source: www.researchgate.net

6.   Sri Lanka, which lies in the middle of these routes, is placed in an important geostrategic location that links the Western Indian Ocean with the Bay of Bengal. Sri Lanka has an Exclusive Economic Zone (EEZ) that is almost eight times larger than its land area, providing it with significant potential and responsibility (Sri Lanka Navy, 2020). The safeguarding and sustainable utilization of this maritime space will rely on good governance, joint operations and technology. Therefore, the continued transparency, security, and ecological sustainability of the maritime commons of the IOR should not be seen only as a local agenda but as a global one.

Contemporary Stability Issues in the Indian Ocean Region

7.   There are three main interconnected domains that can be identified as the main reasons for the contemporary issues in the IOR. These issues mainly include geopolitical competition, non-traditional maritime threats, and environmental change.

8. **Geopolitical Rivalries and Strategic Competition**.   In the present day, the Indian Ocean has been reestablished as a site of great power rivalry. The U.S, China and India seek strategic presence in the area by influencing naval force, developing ports, and economic activities. The Belt and Road Initiative (BRI) of China and the development of dual-use ports (including Gwadar and Djibouti) have changed the situation in the region (Butt and Siddiqui, 2021). In response, the Quadrilateral Security Dialogue (QUAD) involving India, Japan, Australia, and the United States focuses on a 'Free and Open Indo-Pacific', which involves the securing of the IOR.

Figure 2 : Key Maritime Choke Points in the Indian Ocean
Source: www.carnegieendowment.org

9. Sri Lanka, Maldives, and Mauritius have been caught in this strategic triangle. It is evident that, as small countries, they are struggling to balance their relations and maintain sovereignty. External power projection has gained an advantage in defining regional stability largely because there are no neutral, multilateral mechanisms of maritime governance (Medcalf, 2020).

10. **Non-Traditional Maritime Threats**.   In addition to the conventional naval competitions, non-conventional security issues affecting the IOR include piracy, drug trafficking, Illegal, Unreported and Unregulated (IUU) fishing, and human smuggling. In spite of the fact that the level of Somali piracy has decreased since 2017, the Western Indian Ocean continues to be a source of narco-terrorism and smuggling of weapons (UNODC, 2022).

11. Sri Lanka's EEZ has become a transit corridor for narcotics originating from the 'Golden Crescent' region, as confirmed by the Sri Lanka Navy's seizure of over 18,000 kg of narcotics in the year 2024 (SLN Annual Report, 2024). These operations not only put the regional maritime security at risk but also finance transnational criminal networks.

12.   On the same note, IUU fishing activities continue to reduce fish resources, which undermines food security and marine life. According to Food and Agriculture Organization (FAO) of the United Nations, almost 30% of IOR fish stocks are overexploited, whereas regional monitoring is weak. The lack of common surveillance information among littoral states is one of the issues that makes the problem persist (FAO, 2022).

13.   **Climate and Environmental Concerns**.   Climate change exists as a threat to the very existence of IOR. Increasing sea levels, coral bleaching, and cyclones are becoming serious problems for coastal communities. The Intergovernmental Panel on Climate Change (IPCC) report, emphasizes that the IOR warms faster than the global ocean average. It raises the severity of extreme weather and weakens the resilience of island states and maritime eco systems as a result of this warming (IPCC, 2023).

14.   Environmental degradation also contributes to instability through resource scarcity and displacement. Ocean acidification and marine pollution, including plastic waste, have become major transboundary concerns. For instance, the MV X-Press Pearl disaster (2021) off Colombo resulted in severe ecological damage and emphasized the need for coordinated regional environmental response (Partow et al., 2021). Therefore, it is evident that geopolitical competition, non-traditional security risks, and environmental vulnerability of the IOR are complex in nature. It requires both diplomatic cooperation to handle these complexities and technological innovation.

Technologies Employed to Address Maritime Stability Challenges

15.   The dynamic maritime environment of the IOR has led states to embrace different technologies in order to advance the Maritime Domain Awareness (MDA), enhance law enforcement, and environmental protection. These technologies can be broadly categorized under surveillance systems, information-sharing systems, and environmental monitoring systems.

   a.   **Surveillance and Monitoring Technologies**.   Detection of the vessels can also occur in satellite-based systems like Automatic Identification Systems (AIS) and Synthetic Aperture Radar (SAR) Satellites, which cover the areas that coastal radars cannot (European Space Agency, 2025). Regional Information Fusion Centers (IFCs) such as the Information Management and Analysis Centre (IMAC) in India blend satellite feeds, coastal radar, and AIS data to monitor maritime traffic in the northern IOR. Unmanned Aerial Vehicles (UAVs) and maritime patrol aircraft have become key assets for countries such as India, Australia, and Seychelles. These airplanes are equipped with powerful radar and electro-optic sensors capable of surveying expansive areas (TN National Desk, 2022). Similarly, under the Maritime Safety and Security Project (MSSP) with the assistance of Japan, Sri Lanka has invested in coastal radar infrastructure.

   b.   **Information Fusion and Data Sharing**.   Technological cooperation revolves around information fusion centers. The real-time data exchange on piracy and maritime incidents is provided by the Information Fusion Center - IOR (IFC-IOR) established in Gurugram, India and the Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia (ReCAAP) information sharing center (ReCAAP ISC, 2023). Maritime Rescue Coordination Centres (MRCCs) across

the region also play a vital role in distress alert reception and coordination, often linking with IFCs and GMDSS nodes to enhance the timeliness of maritime incident responses. The Digital communication systems, such as the Maritime Safety Information (MSI) system and the Global Maritime Distress and Safety System (GMDSS), are used to improve emergency response. Nonetheless, the involvement of smaller littoral states remains uneven due to a lack of technical competence and cyber security issues.

Figure 3 : Information Fusion Centers in the IOR
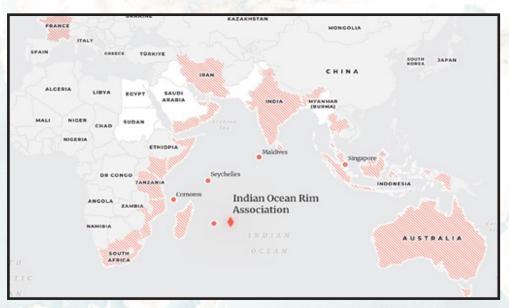Source: www.carnegieendowment.org

c.   **Environmental and Disaster-Response Technologies**.   At present, IOR uses predictive analytics, acoustic sensors and satellite oceanography in environmental monitoring. The Indian National Centre of Ocean Information Services (INCOIS) also offers real-time alerts of waves and tsunamis with the help of deep-sea sensors (INCOIS, 2022). Remote-sensing buoys are applied in Sri Lanka and the Maldives to check the temperature and salinity of the oceans. The Indian Ocean Observing System (IndOOS) is a combined network of around 30 nations that collects oceanographic data through various sensors to forecast monsoons and cyclones (Vialard & Roxy, 2019). These systems have been able to provide critical data for both climate research and maritime safety.

Existing Technologies and Identified Gaps

16.   Despite the impressive advancement of maritime surveillance and information-sharing, there is still a separate nature of technological integration in terms of IOR. The diverse character of the region, encompassing advanced economies (including India and Australia) and the developing island states (including the Maldives and Comoros), has caused the asymmetry of capabilities within the region.

a.   **Fragmented Regional Architecture**.   Current systems such as IFC-IOR, ReCAAP , and IMAC are not interoperable and can only work efficiently in their areas. Lack of unified data protocols means that maritime data cannot be fused in real-time across national boundaries (Meegoda, 2020). This

translates to duplication of responses or delays in identifying illegal activities. Although there are regional associations like the Indian Ocean Rim Association (IORA) and multinational maritime symposiums like Galle Dialogue and the Indian Ocean Naval Symposium (IONS), they lack an assurance mechanism for operational coordination. Another constant problem is the lack of information sharing between civilian and military maritime authorities in the region (Sutton, 2016).

Figure 4 : IORA member States
Source: www.carnegieendowment.org

b.   **Limited Technological Reach of Small States**.   The majority of the small island states within the IOR rely on the help of foreign countries to maintain maritime surveillance. Some countries dependent on radar systems provided as aids, or even common satellite feeds, which limit the independent surveillance capabilities. The lack of capacity to achieve all-dimensional maritime visibility is another challenge these island countries constantly face. These disparities are worsened by the deficiency in investment in training and digital infrastructure. Poor connectivity at sea interferes with the timely exchange of data between the ship and coastal centers.

c.   **Cyber Security and Data Sovereignty Concerns**.   The modern MDA networks largely rely on the interconnectivity of data. Therefore, cyber vulnerabilities related to the maritime information systems have increased exponentially. As per the International Maritime Organization (IMO) more than 20,000 malware incidents have been reported on the vessels travel through IOR in 2024. Smaller states may be hesitant to share surveillance data due to concerns related to sovereignty and the potential misuse of intelligence. Such hesitation could pose challenges to collective security efforts, even when shared threats exist.

d.   **Environmental Monitoring Gaps**.   Although IndOOS and INCOIS present useful oceanographic information, the areas of the western and southern IOR are not covered adequately. Most countries do not have localized modeling software to forecast cyclones, oil spills, and coral bleaching. Unless these systems are integrated with Artificial Intelligence (AI) and Machine Learning (ML), the accuracy of predictions is low. The technological environment in the region appears to be improving, but it lacks national and regional coordination.

Development Needs and Possible New Technological Solutions

17.   By considering existing technical frameworks and their gaps, development opportunities can be observed in the following technological areas.

a.   **Moving Towards a Regional Maritime Data Fusion Framework**.   The establishment of a Regional Maritime Data Fusion Framework (RMDFF) can be identified as the first step in securing the maritime commons. This would incorporate satellite, AIS, radar, and environmental information on a single interface that will be available to regional partners who are authorized to use it. This system would be similar to the European Maritime Safety Agency (EMSA) model, which integrates civil and defense maritime information without interfering with the sovereignty of the nations. The RMDFF might be hosted on the Secretariat of IORA with localized data nodes in Colombo, Port Louis and Jakarta. It could be integrated with predictive analytics based on AI and provide early alerts on piracy, IUU fishing, and climate events. This would make the security of the region anticipatory rather than reactive.

b.   **Application of Artificial Intelligence and Machine Learning**.   AI and ML can transform marine operations. By automated pattern recognition, AI can identify abnormal vessel behavior, including a dark ship disabling the AIS or an abrupt change of route. Technologies such as, the Sea-vision platform utilized by the U.S. Indo-Pacific Command uses ML algorithms to monitor vessels in several layers of data (U.S. Navy, 2023). The surveillance capabilities of IOR can be improved with a scaled-down version of the program as an initial step, supported by collaboration among the region's entities. The AI also has the potential to aid in environmental management by predicting harmful algal blooms, mapping coral reef health, and optimizing fisheries yield. A combination of climate information and security analytics would make it possible to govern the oceans comprehensively.

c.   **Autonomous Systems and Unmanned Platforms**.   The future front-line of maritime security is the Autonomous Surface Vehicles (ASVs) and Underwater Drones (UUVs). These low-cost systems are capable of doing patrols, environmental scanning, and probing infrastructure. Countries such as Australia and India have already implemented AI-enabled ASVs to monitor the coast (Science, 2022). Sri Lanka would be able to incorporate such systems through regional cooperation, as it can use its central geographical position to deploy and maintain.

d.   **Space Based Maritime Surveillance**.   Cube-Sat constellations and commercial satellite imagery have made real-time ocean information more democratic. Projects like Spire Global and Planet Labs offer monitoring of ships around the globe on a subscription basis. The shared access of IOR states could be negotiated by a regional association, which will help lower costs and provide fair data distribution (European Space Agency, 2025). The Maritime Environmental Intelligence Systems (MEIS) can also be facilitated with such technology, which consists of merging satellite radar with oceanographic models to predict oil spills, plastic drift, and pollution.

e.   **Strengthening Regional Legal and Institutional Mechanisms**.   Technology will not ensure any kind of stability without institutional support. The establishment of a Maritime Technology Cooperation Accord (MTCA) within IORA would help establish funding, capacity building, data sharing, and cyber security standard-setting. At the same time, introducing climate and environment into the security discussion in the maritime domain will be important. As the United Nations Environment Programme (UNEP, 2022) suggests, it would guarantee the comprehensive governance of the maritime commons.

18.   These solutions may collectively ensure maritime security in the IOR, thus enhancing regional stability.

CONCLUSION

19.   The maritime commons of the Indian Ocean Region are not just a strategic battlefield but also a mutual lifeline of the nation and economies of the Asian region. The increasing overlap of geopolitical competition, unconventional warfare, and environmental effects has increased the need to develop technology together. Satellite systems, AI-based analytics, and autonomous surveillance platforms are game-changers in redesigning the security picture in the region by enabling a transition from fragmented vigilance to a shared, more effective outlook. However, without equal involvement of regional countries and strong legal frameworks, technology may widen the gaps rather than narrowing them.

20.   In the case of Sri Lanka and its neighbors, the way forward is in strategic neutrality, technological inclusivity, and solidarity with the region. It is true that by encouraging innovation in the context of cooperation rather than competition, the Indian Ocean can indeed become a corridor of peace.

21.   The future stability of the Indian Ocean lies in the capability of the nations to convert the technological potential into collective prosperity and security. The idea of utilizing joint, technologically based solutions to tackle problems is not just a possibility but a regional necessity.

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THE BAY OF BENGAL AND EMERGING REGIONAL ALIGNMENTS-CHALLENGES AND SOLUTIONS

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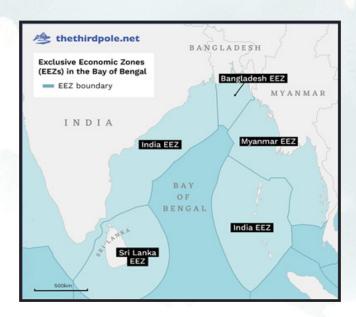**Shams Sadekin Nirnoy**
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INTRODUCTION

1.   The Bay of Bengal, a historical bay, spanning approximately 2.17 million sq km is a strategic subregion of the Indo-Pacific. According to International Hydrographic Organization (Limits of Oceans and Seas, 3rd Edition, 1953), it is geographically bordered by India, Bangladesh, Myanmar, Sri Lanka and Indonesia. While the northern tip of Sumatra (Indonesia) is used as a southern boundary marker, Indonesia itself does not have a coastline directly fronting the Bay of Bengal. Its maritime domain opens into the Andaman Sea and the Malacca Strait, not the Bay of Bengal. Thailand's western coastline, is linked with the Bay of Bengal through the Andaman Sea. Nepal and Bhutan are landlocked countries connected through port access of littoral countries. Excluding Indonesia, these nations account for roughly 1.7 billion people, about a quarter of the global population and a combined GDP exceeding US$5 trillion (Asia Centre, 2020). Historically a trade corridor linking Arabia and East Asia, the Bay today handles 25% of global trade and 80% of regional energy imports via critical sea lanes (Maritime India, 2021).

2.   The socio political landscape of the region is being influenced by post-independence challenges such as civil war, political instability and illegal migration. These events highlighted the need for peace, maritime security and economic cooperation as pillars of sustainable development (Xavier, 2018). India's "Look East" (later "Act East") policy since the 1990s has aimed to reconnect with Southeast Asia through trade and maritime diplomacy (Chaudhury, 2021). The establishment of regional frameworks such as The South Asian Association for Regional Cooperation (SAARC), Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC), and Indian Ocean Rim Association (IORA) reflects an attempt to overcome regional fragmentation and foster a shared vision of prosperity through Indian Ocean region. Over the past three decades, littoral states have gradually shifted from nationalist isolation toward cooperative regionalism, emphasizing blue economy development, maritime governance and disaster resilience (Maritime India, 2021).

Strategic Landscape and Emerging Alignments

3.   **Regional Power Equations**.   India, with the longest coastline along the Bay and the largest EEZ, projects maritime leadership through the Security and Growth for All in the Region (SAGAR) policy (2015). The policy focuses on regional safety, capacity-building and disaster management. India's naval capabilities enable it to act as a regional security provider (Maritime India, 2021). It is among the fastest-growing major economies, maintaining an average 6–7% annual GDP growth rate over the past decade. The SAGARMALA initiative aims to modernize ports and logistics, enhancing maritime trade efficiency (MoC, 2024). It leads in cross-border electricity trade with Nepal, Bhutan and Bangladesh and actively promotes the BIMSTEC Power Grid Interconnection Project aiming for a shared regional energy market.

4.   Diplomatically, India's "Act East" and "Neighborhood First" policies promote political stability and infrastructure integration across the Bay of Bengal region. India's leadership in space technology and digital innovation enhances its regional profile. Bangladesh, following maritime boundary resolutions with India (2014) and Myanmar (2015), gained an EEZ of 118,813 sq km marking a shift towards an ocean-oriented strategy. Its Indo-Pacific Outlook (2023) emphasizes neutrality, multilateralism and sustainable maritime trade. Bangladesh's blue economy is valued at US$6.2 billion supported by ongoing port developments at Payra, Mongla and Chattogram (Xavier, 2017). Bangladesh hosts world's largest ship recycling industries, concentrated along the Chattogram coast at Sitakunda and contributes an annual turnover of US$ 2 to 2.5 billion. The sector accounts for 40% to 50% of global shipbreaking by volume (World Bank, 2023). Its export-driven industrial base is led by ready-made garment (RMG) sector which contributes around 12% of the national GDP and generates over 84% of total exports. This has transformed the nation into a global manufacturing hub. Sri Lanka, at the East–West shipping crossroads, handles over 60,000 ship transits annually with 70% of transshipment cargo sourced from India. Colombo and Hambantota ports have become strategic hubs enhancing BIMSTEC's maritime initiatives (Asia Centre, 2020).

Figure 1: Map of the EEZ of Bay of Bengal Littoral.

5.   The Colombo Port ranks among South Asia's busiest, handling over 7.2 million Twenty-foot Equivalent Units (TEUs) in 2023, with 70% of transshipments linked to Indian ports (SLPA, 2023). Tourism is one of Sri Lanka's most dynamic economic sectors, contributing 4.9% of GDP in 2023 and employing nearly 488,000 people directly (World Travel & Tourism Council, 2024). Myanmar bridges South and Southeast Asia, hosting key energy and connectivity projects like the India, Myanmar, and Thailand Trilateral Highway and the Kaladan Multi-Modal Transit Project. Chinese investments in Kyaukpyu Port and natural gas and crude oil pipelines under the Belt and Road Initiative (BRI) highlight Myanmar's role as a regional pivot (NMF, 2023). Landlocked Nepal and Bhutan rely on India and Bangladesh for maritime access through Bay of Bengal. The Bangladesh Bhutan India Nepal (BBIN) Initiative functions primarily through the Motor Vehicles Agreement (MVA) which facilitates cross-border movement of goods, vehicles and people. Although full implementation of the initiative remains limited due to Bhutan's pending ratification. Thailand, on the Bay's eastern rim, links BIMSTEC and Association of Southeast Asian Nations (ASEAN) through projects like the Dawei Deep-Sea Port strengthening regional connectivity.

6.   **Institutional and Regional Alignment**.   Institutional frameworks are crucial for managing the Bay's interdependence. SAARC (1985) aimed to promote South Asian unity but was hindered by India Pakistan tensions. In contrast, BIMSTEC (1997) emerged as a more pragmatic mechanism, uniting seven nations across 14 priority sectors. These include trade, energy, counter-terrorism, environment and disaster management (Carnegie, 2018). BIMSTEC encompasses 22% of the global population, a combined GDP exceeding US$5 trillion. It bridges India's "Act East" and Thailand's "Look West" policies fostering trans-regional economic continuity (Asia Centre, 2020). Thailand is primarily aligned with ASEAN, participating actively in its regional integration and policy frameworks, while its engagement in BIMSTEC remains secondary and issue specific. Complementing BIMSTEC, the Indian Ocean Rim Association (IORA) promotes maritime safety, sustainable fisheries and blue-economy partnerships among 23 member states (Maritime India, 2021). Bilateral agreements like the India–Bangladesh Coastal Shipping Agreement (2015) and maritime boundary settlements (2014–15) demonstrate regional cooperation. These milestones reflect a regional understanding that prosperity depends on coordinated management of maritime spaces and institutionalized governance, rather than unilateral competition.

Figure 2: Members of BIMSTEC

Contemporary Challenges in the Bay of Bengal

7.   **Economic and Technological Development in the Bay of Bengal Region**.   The Bay of Bengal region is characterised by growing economies with limited resources, developing technological capabilities and relatively lower per capita incomes. Consequently, poverty alleviation and the pursuit of sustainable prosperity remain major challenges. This is further complicated by widening economic and technological gaps, not only with other global regions but also among the countries within the region. While nations like India, Bangladesh, Sri Lanka and Thailand have made notable progress in manufacturing and exports, others such as Myanmar continue to struggle due to political instability, weak infrastructure and mounting debt. This uneven growth restricts the region's capacity to cooperate effectively and build a balanced resilient economy.

   a.   **Economic Disparities in the Region**.   Economically, the region displays significant disparities. India, with a GDP of US$3.91 trillion in 2024 and a projected growth rate of 6.8%, continues to face challenges like uneven development across its states. Sri Lanka's economy, valued at US$98.96 billion, is still recovering from recent crises, grappling with 1.5% inflation in September 2025 and a 2.46% year-to-date currency depreciation. Bangladesh's GDP stands at US$474 billion and Thailand's at US$640 billion, while Myanmar's economy contracted by 2.5%, burdened by over 25% inflation and a 40% currency devaluation due to ongoing instability and debt.

   b.   **Technological Development and Innovation Gaps**.   Technologically, most countries in the Bay of Bengal region lag behind in key modern sectors such as infrastructure development, logistics, energy production, semiconductor fabrication and heavy machinery industries. Defence manufacturing also remains underdeveloped. Having largely missed the Industrial Revolution due to colonisation, these countries face the challenge of rapid technological catch-up. Emerging sectors such as renewable energy, digital infrastructure, blue economy development and climate-resilient technologies are yet to be harnessed to their full potential. Consequently, the region remains heavily dependent on external partners like China, Russia, Japan and Western nations for advanced technology and investment. Limited research capacity, poor coordination and inadequate funding continue to slow innovation.

   c.   **Regional Cooperation and Integration Efforts**.   Regional cooperation mechanisms, such as the Bay of BIMSTEC have initiated projects like the regional power grid linking Bangladesh, Bhutan and Nepal, as well as Nepal's export of 40 MW of electricity to Bangladesh through India. However, collaboration in areas such as transport, shipping, agro-processing, fisheries and port development remain limited. Intra-regional trade continues to fall below US$50 billion annually, a stark contrast to the region's combined GDP exceeding US$5 trillion. These persistent gaps in infrastructure, technology adoption and coordinated economic planning underscore the pressing need for deeper integration, investment in innovation and collective strategies to ensure balanced and sustainable development across the Bay of Bengal.

8.   **Rising Extra Regional Influence**.   The Bay of Bengal serves as a vital global maritime gateway, driving trade and technological progress across the globe. Its strategic importance has attracted major extra-regional powers seeking economic and geopolitical influence through investments in infrastructure and energy sectors.

a.   **Chinese, Russian and Japanese Engagement**.   China remains the most active external investor in the Bay of Bengal region, with investments estimated at around US$20 billion in Bangladesh since the year 2000 and major infrastructure projects in Myanmar such as the Kyaukpyu Deep-Sea Port and the China–Myanmar Economic Corridor (CMEC), which provide Beijing with enhanced access to the Indian Ocean. In Sri Lanka, China is financing a US$3.7 billion oil refinery in Hambantota and a US$392 million logistics complex in Colombo, strengthening its maritime footprint. Russia, on the other hand, continues to bolster its regional partnerships primarily through defence exports to India and major energy collaborations, notably the US$12.65 billion Rooppur Nuclear Power Plant in Bangladesh, financed largely by Russian loans. Japan, through the Japan International Cooperation Agency (JICA), is emerging as a key development partner, funding projects such as the Matarbari Deep-Sea Port and Dhaka Metro, with total investments exceeding US$6 billion across the region. Additionally, Japan's collaboration with India on infrastructure projects, including the Metro and bullet train initiatives, reflects a shared commitment to sustainable connectivity and technological progress.

b.   **Western and Gulf Engagements**.   The United States, through the U.S. International Development Finance Corporation (DFC), has invested US$553 million in Sri Lanka's Colombo West Container Terminal, while U.S firms under the Indo-Pacific Partnership for Prosperity have pledged US$25 billion for infrastructure development across the region. Meanwhile, Australia and the European Union are expanding their presence through initiatives like the Indo-Pacific Strategy and Global Gateway, aimed at promoting resilient, transparent and sustainable infrastructure. The Gulf nations, including Saudi Arabia and the United Arab Emirates, are also strengthening their economic footprint through renewable energy investments. Notable projects include Saudi Arabian company ACWA Power's US$430 million Rampal solar project and UAE based company Masdar's US$500 million coastal solar plant in Bangladesh, highlighting a growing interest in clean energy cooperation.

c.   **Emerging Complexities in the Region**.   While these investments bring infrastructure growth and employment, they also raise concerns about debt, strategic dependence and environmental impacts. Competing interests among major powers risk fragmenting regional development and complicating foreign policy for smaller nations. Hence, greater regional cooperation, transparent governance and balanced partnerships are essential to ensure sustainable and inclusive growth in the Bay of Bengal region.

9.   **Political Instability in Myanmar**.   The ongoing political instability in Myanmar, following the military coup of 2021, has had profound repercussions across the Bay of Bengal region, affecting not only Myanmar's internal stability but also the broader regional security and economic landscape. The protracted conflict between the military junta and various ethnic armed groups has disrupted major regional connectivity and infrastructure projects, such as the India, Myanmar, and Thailand Trilateral Highway and the Kaladan Multi-Modal Transit Transport Project, both of which are vital for enhancing regional trade and integration. The crisis has also triggered widespread internal displacement and refugee flows, particularly into Bangladesh, India and Thailand, creating significant humanitarian and security challenges along shared borders. Additionally, escalating violence and instability have provided opportunities for cross-border insurgent movements and illicit trafficking, further undermining regional stability. In the geopolitical domain, Myanmar's increasing economic and diplomatic

dependence on China for investment, infrastructure funding and international backing has deepened Beijing's footprint in the country, thereby shifting the strategic balance within the Bay of Bengal and Indo-Pacific regions. Overall, Myanmar's internal turmoil poses a serious obstacle to regional cooperation, connectivity and collective security efforts, making political reconciliation and stability within the country crucial for sustainable peace and development across the Bay of Bengal region.

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PRAGMATIC SOLUTIONS IN OVERCOMING THE CHALLENGES

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Regional Cooperation to Tackle Economic and Technological Challenges

10.   **SAARC**.   In order to tackle the economic and technological challenges in the Indian Ocean Region region, the idea of a regional cooperation in the form of The South Asian Association for Regional Cooperation (SAARC) was first proposed by Bangladesh in 1980, under the leadership of President Ziaur Rahman. Eventually, SAARC was formally established in Dhaka in 1985 with seven founding South Asian nations. The vision of SAARC was to promote peace, stability and progress in South Asia. SAARC, however, could not realise its full potential due to political tensions between India and Pakistan.

11.   **BIMSTEC**.   In 1997, another sub regional cooperation called BIMSTEC was proposed and founded in Bangkok, Thailand, as BIST-EC, by Bangladesh, India, Sri Lanka and Thailand. Myanmar, Bhutan and Nepal were included later to form the present seven-member regional organisation. BIMSTEC holds a distinct characteristic of being the only organisation which links South Asia and Southeast Asia ie. Myanmar and Thailand. Linking of Southeast Asia through BIMSTEC is beneficial for South Asia as Myanmar holds huge potential in energy sector as it has significant natural gas reserves and vast hydro-power potential due to its numerous rivers. Myanmar ranks third globally in rare earths production, making up roughly 11-14% of global output. Thailand on the other hand is one of the region's top exporters of manufactured goods especially electronics and automotive parts. Thailand also has a robust Public Health system and ranks highly in e-governance or digital- public service. It also acts as a gateway for transferring ASEAN best practices to South Asia.

12.   **Achievements of BIMSTEC**.   Over the past 28 years, BIMSTEC has demonstrated steady progress and established itself as a reliable and trusted framework for regional cooperation. Noteworthy achievements of BIMSTEC include the following:

    a.   Establishing digital cross-border payment system to boost trade and tourism wherein countries like Sri Lanka, Nepal and Bhutan have adopted the Unified Payments Interface (UPI).

    b.   Establishing BIMSTEC Energy Centre (BEC) in Bengaluru to support research, capacity building and regional energy cooperation, including studies on grid interconnection.

    c.   Endorsing of the BIMSTEC Master Plan for Transport Connectivity at the Fifth BIMSTEC Summit held in Colombo, Sri Lanka, on March 30, 2022. The India, Myanmar, and Thailand Trilateral Highway covering 1,400 km aims to connect Moreh in Manipur, India with Mae Sot in Thailand via Myanmar, facilitating enhanced trade, tourism and regional integration.

13.   **Way Ahead of BIMSTEC**.   The recent inclusion of Blue Economy, Mountain Economy and Poverty Alleviation shows the dynamic nature and scope for expansion in BIMSTEC. Further, BIMSTEC has committed to enhance cooperation on food security, knowledge, skill, science, technology and innovation during the sixth BIMSTEC summit which was conducted in Bangkok, Thailand on 04 April 2025. At the summit, leaders adopted the BIMSTEC Bangkok Vision 2030, which envisages a prosperous, resilient and an open BIMSTEC region. The following are among the significant goals pursued to achieve BIMSTEC Bangkok Vision 2030.

   a.   The BIMSTEC Free Trade Area Agreement (FTA) is one of the most important goals of the organisation. The Framework Agreement on BIMSTEC Free Trade Area was signed in 2004, establishing the foundation for regional economic integration. Presently, the agreement is still being negotiated by the BIMSTEC Trade Negotiating Committee (TNC). If successfully concluded and implemented, it would transform the Bay of Bengal region by boosting Intra-Regional Trade which currently accounts for less than 6% of the total trade of member countries.

   b.   The BIMSTEC Grid Interconnection initiative aims to enhance energy security, promote renewable energy utilisation, and facilitate cross-border electricity trade among member countries. BIMSTEC Grid Interconnection Coordination Committee (BGICC) is currently finalising the BIMSTEC Grid Interconnection Master Plan Study, which will provide a comprehensive road map for infrastructure development and interconnection strategies.

   c.   BIMSTEC Motor Vehicle Agreement is a proposed pact to facilitate the smooth movement of passenger and cargo vehicles across the borders of the seven member countries.

Extra Regional Influence

14.   **Benefits of Extra Regional Engagement**.   While regional cooperation is key for regional growth, extra regional engagement accelerates progress and enhances prosperity in the region. The region, therefore, engages actively with countries like Russia, China, USA and Japan for building infrastructures like roads, railways, metro rails, and bullet trains, shipping ports, energy projects like offshore oil and gas developments, nuclear plants as well as procurement of defence equipment.

15.   **Challenges and Solutions**.   Extra regional influence has its own challenges like sovereignty risks, dependency traps and proxy conflicts. The vulnerabilities of extra-regional influences can be mitigated through resolute diplomacy, transparent deals, respect for regional stability and strategic awareness. Extra regional engagements are strategic opportunities to harness global connectivity and are imperative for accelerating regional growth.

CONCLUSION

16.   The Bay of Bengal has evolved into a dynamic yet complex geopolitical and economic arena where regional and extra-regional interactions define the balance of power. India, with its SAGAR vision and robust maritime and technological capacity, continues to project leadership across the Bay, while Bangladesh's rapid industrial growth, thriving ship-breaking sector and expanding blue economy demonstrate significant regional transformation. Sri Lanka's port modernization and tourism revival have strengthened its maritime relevance, whereas Myanmar's instability remains a major obstacle to regional integration. The region faces diverse economic and technological challenges in achieving overall progress. Despite challenges, regional cooperation in trade, connectivity, technology and security is increasingly part of national aims which is taking shape in form of initiatives like the BIMSTEC Grid Interconnection, Free Trade Area negotiations and transport interconnectivity projects. At the same time, extra-regional powers including China, Japan, the United States and Gulf nations have intensified their presence through infrastructure, energy and security investments, adding both opportunities and vulnerabilities.

17.   The Bay of Bengal Region is witnessing a cohesive regional alignment powered by deepened regional cooperation through mutual trust, peace and a strong will to cooperate with each other in pursuit of achieving the aspirations of its people. This regional alignment balances challenges from extra regional influence through policies like non alignment, neutrality and equidistant foreign policies. The BIMSTEC Bangkok Vision 2030 stands as a testament to the region's growing spirit of cooperation and its collective commitment to achieve accelerated and sustainable development.

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GEOPOLITICAL REALIGNMENTS OF MIDDLE POWERS IN INDIAN OCEAN REGION

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"As global rifts deepen, middle powers can be the game-changer in 21st century world order"
-Dr. Dino Patti Djalal -

INTRODUCTION

1.   The Indian Ocean Region (IOR) is increasingly recognized as the most important ocean in the 21st century, owing to its emergence as a critical geopolitical and geo-economic hub. IOR is connecting regions from Africa to South East Asia. Prominent Sea Lines of Communication (SLOC) carry nearly two–thirds of global oil transfer and international trade. Due to increasing strategic interest from major powers, middle powers in the Indian Ocean Region have emerged as key actors in maintaining regional stability and shaping the maritime order.
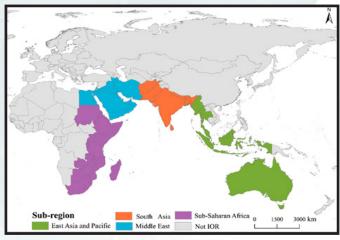

Figure 1: Indian Ocean Region
Source: https://lki.lk

2.   Middle powers are defined as countries that lie between great and small powers in terms of capabilities, possessing sufficient diplomatic, military, economic and strategic influence to shape regional outcomes without control over the international or regional order (Elliott, 2024). Australia, Indonesia, Pakistan, South Africa, Saudi Arabia, the United Arab Emirates, Iran, Malaysia and Singapore exemplify such states in the IOR. While these countries rank approximately within the top 40 in global purchasing power parity and the top 50 in the global firepower index they hold significant strategic importance in the Indian Ocean Region (IOR) (Global Fire Power, 2025; The World Bank, 2025). These states are categorized as middle powers due to their ability to leverage geo-strategic location, economic resources, naval capabilities and multilateral engagement to influence regional dynamics. They pursue strategic autonomy, promote regional stability, and contribute to maritime governance through capacities such as strategic hedging, partnership building, and normative leadership, despite the prevailing great-power competition across the IOR.

3.   Geopolitical realignment refers to the strategic shifting of alliances, partnerships and power relations among the nations in response to evolving political, economic or security dynamics at the regional or global level (Hashmi et al., 2023). Arising of opportunities with such realignments and vulnerabilities may also arise on additional stress over national interests of countries. Geopolitical realignment drives both major and middle powers to adapt foreign policies, reshuffle alliances and engage in hedging strategies, influencing the balance of power, regional stability and the governance of critical sea lanes and maritime resources.

4.   In IOR following factors are identified as causes or root causes on contemporary geopolitical realignments;

   a.   Expanding US-China competition and India's rise as a regional major power.

   b.   China's Belt and Road Initiative (BRI) and its 'String of Pearls' strategy, which is increasing regional competition.

   c.   India deepens strategic ties with China through platforms like the Shanghai Cooperation Organization (SCO).

   d.   The United States strengthens its presence through the Indo-Pacific Strategy and frameworks such as QUAD.

5.   These dynamics lead middle powers in IOR to reposition partnerships and cooperation which may cause to define the contours of an emerging multi-polar maritime order in the IOR.

DIME FRAME WORK ON MIDDLE POWERS OF INDIAN OCEAN REGION

6.   It is essential to identify middle powers' capabilities and influences before analysing the strategic measures necessary to address contemporary challenges in the Indian Ocean Region (IOR). In this regard, Diplomacy, Information, Military, and Economic (DIME) frame work has been used as a comprehensive tool to analyse the power and influences of the middle powers (Swielande, 2019; Nagy, 2022).
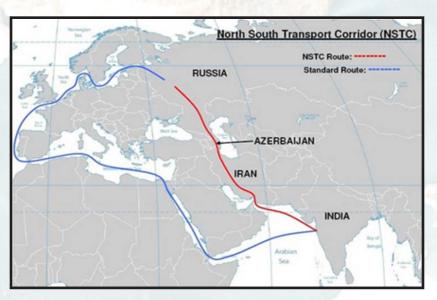
7. **Diplomatic Dimension**.   Middle powers in the IOR are using their diplomacy as a shield and a tool; on one hand safeguarding sovereignty and other hand fostering cooperation and mitigating great-power rivalry. It shows that middle powers serve as stabilizers in the IOR balancing major powers and shaping a cooperative and rules-based maritime order.

   a. **Multilateral and Institutional Engagement**.   Middle powers amplify their influence over IOR through multilateralism. Australia advances a rules-based maritime order via dialogue, capacity building and partnership through IORA and ensuring a 'free, open, and inclusive Indo-Pacific' through QUAD. Subsequently, South Africa, governing 'Ubuntu diplomacy' through the AU, BRICS, and IORA, linking African and Asian shores.

   b. **Strategic Balancing and Hedging**.   In between United States and China competition, middle power states adopt flexible alignments. For instance, Indonesia and Malaysia maintain equidistance, maintaining 'independent and active' diplomacy. Though Pakistan mainly maintain economic ties with China, it retains diplomatic ties with the Gulf in close political cooperation and mutual support in international forums and US-led Western alliances in participating dialogues and maintaining strategic communication. In contrast, Iran seeks strategic autonomy through partnerships with China, Russia and India.

   c. **Maritime and Economic Diplomacy**.   Middle powers enhance regional connectivity and blue economy cooperation. For example, UAE and Saudi Arabia invest in African and South Asian ports, opening trade and energy corridors. Similarly, South Africa supports the AU's blue economy strategy for ocean-based growth across the continent to harness Africa's marine and coastal resources.

   d. **Norm-Building and Cooperative Security**.   These middle powers promote maritime governance based on international law and equal opportunities. Australia, Singapore and Malaysia uphold UNCLOS principles. Subsequently, Indonesia advocates its 'Global Maritime Fulcrum' vision to sustain peace and openness over ocean. South Africa and Iran emphasize sovereignty and non-interference.

8. **Informational Dimension**.   Strategic communication, knowledge diplomacy and soft power is identified as key pillars under informational domain which amplify middle powers involvement over IOR. Through narratives, education, and digital outreach, these states project credibility, shape perceptions and sustain legitimacy in regional affairs.

   a. **Strategic Communication and Public Diplomacy**.   Middle powers employ information tools to build trust and legitimacy. Australia advances regional understanding through media collaborations and scholarship programmes. On the other hand, South Africa promotes African perspectives via public diplomacy and BRICS information networks. Pakistan engages through diaspora networks and international media, though its message often competes with security-based perceptions.

b.   **Cultural and Religious Soft Power**.   Culture and values serve as key vehicles of influence. Indonesia projects an image of moderation and pluralism through Islamic and democratic diplomacy, while Malaysia emphasizes a moderate Islamic identity and maritime cooperation via the Maritime Institute of Malaysia (MIMA). Iran employs cultural diplomacy and state media to promote narratives of resistance and independence across the Global South.

c.   **Knowledge and Digital Diplomacy**.   Innovation and education underpin the informational strength of certain middle powers. Singapore leads in digital governance, e-learning, and technological outreach, positioning itself as a knowledge hub of the IOR. In the same way, Australia and Malaysia complement this by investing in academic partnerships and ocean governance research that enhance regional knowledge sharing.

d.   **Image-Building and Modernization Narratives**.   The UAE and Saudi Arabia deploy global media, cultural events, and digital platforms to promote modernization, diversification, and connectivity under their Vision 2030 frameworks, aligning soft power with broader geopolitical outreach.

9.   **Military Dimension**.   Although middle powers in the IOR lack the large military strength as major powers, their military instruments serve vital roles in deterrence, maritime security, and cooperative engagement. Their defence strategies combine capability development, partnership-building, and regional stabilization efforts (Cordner, 2017; Edström & Westberg, 2020). These military initiatives reflect derived strategic influence through partnerships, presence and professionalism. Middle powers enhance regional interoperability and act as stabilizers across the IOR's contested maritime space, ensuring balance, access, and cooperative security.

a.   **Maritime Security and Deterrence**.   Many middle powers prioritize sea control and deterrence in key choke-points. Iran secures influence through its naval presence in the Strait of Hormuz, supported by partnerships with China and Russia. In the same manner, Pakistan, as a nuclear-armed middle power, modernizes its navy to secure the Arabian Sea and support Chinese operations through Gwadar Port. In the east side of IOR, Malaysia and Indonesia maintain defensive maritime postures emphasizing sovereignty and stability in the Malacca Strait and surrounding waters.

b.   **Defence Partnerships and Interoperability**.   Defence cooperation led by middle powers enhances regional security capacity. Australia strengthens interoperability through alliances with the US and Japan and extending capacity-building programmes to smaller IOR states. Similarly, Singapore sustains advanced naval capabilities and hosts multilateral exercises and contributing to regional surveillance and maritime domain awareness as well as Malaysia also engages in joint patrols and training programmes, reinforcing cooperative deterrence.

c.   **Emerging Power Projection and Strategic Reach**.   The UAE and Saudi Arabia are expanding naval infrastructure and establishing logistical footholds in East Africa, demonstrating growing interest in maritime projection aligned with energy and trade security goals.

10.	Economic Dimension.Economic influence remains the most visible and measurable instrument of middle power status in the IOR. Middle powers employ trade, investment, and connectivity initiatives to strengthen autonomy, foster interdependence and expand their regional reach (Davis & Balls, 2019; Asif, 2022). Through trade, investment and connectivity, middle powers enhance strategic relevance and economic resilience whilst reinforcing their capacity to act autonomously amid intensifying systemic competition.

a.	**Trade and Connectivity Initiatives**. Middle powers utilize trade corridors and port infrastructure to link regional economies. Pakistan advances integration through the CPEC that connecting Gwadar Port to global markets. In contrast, Iran leverages Chabahar Port and the International North–South Transport Corridor (INSTC) to expand trade while offsetting sanctions. At the same time, UAE and Saudi Arabia project maritime economic influence through global logistics hubs such as Jebel Ali and Duqm, enhancing connectivity across Africa and South Asia.

Figure 2: International North South Transport Corridor
Source: https://moderndiplomacy.eu

b.	**Diversified Partnerships and Economic Balancing**.	Balancing economic engagement between major powers is a key strategy. Indonesia, as a G20 economy, manages diversified ties with China, Japan, and Western partners to sustain growth and digital innovation. In equal to this, Malaysia employs an ASEAN-centered approach which fostering maritime trade, digital transformation and investment partnerships with China, US and India for regional stability.

c.	**Financial and Innovation Hubs**.	Singapore acts as the IOR's financial and logistics hub driven by its world-class port facilities, open economy and digital infrastructure. Its role enhances transparency and maritime trade efficiency. In the same way, Australia, through Indo-Pacific Economic Framework (IPEF) providing development aid and infrastructure investments to promote sustainable growth and regional resilience.

d.   **Resource and Industrial Diplomacy**.   South Africa utilizes its industrial base, mineral wealth and maritime positioning to deepen economic integration along the southern IOR rim, supporting blue economy initiatives and South trade.

11.   DIME analysis shows diplomatic activism, informational credibility, calibrated military modernization, and economic control of these middle powers enable them to navigate a turbulent maritime environment pressurized by great-power rivalry. These middle powers not act as connectors, ensuring that the Indian Ocean remains a zone of opportunity, cooperation, and managed competition in the evolving global order.

IMPLICATION FOR MIDDLE POWERS UNDER CONTEMPORARY GEOPOLITICAL REALIGNMENT IN IOR

12.   The ongoing realignment of major powers in the IOR compels middle powers to recalibrate policies to preserve autonomy, strategic relevance and economic stability. These consequences appear four key dimensions such as strategic dependency, balancing behaviour, economic vulnerability and normative positioning.

a.   **Strategic Dependency and Security Dilemmas**.   Major-power competition intensifies defence reliance among middle powers. Australia's participation in AUKUS and the QUAD strengthens that deepens dependency on US-led frameworks and limiting strategic flexibility. Similarly, Pakistan's close alignment with China under the BRI and CPEC enhances strategic depth but fuels counter-balancing and dependence risks.

b.   **Balancing Behaviour and Autonomy**.   Middle powers such as Indonesia and Malaysia pursue cautious balancing, maintaining diversified partnerships to avoid entanglement in rival blocs. In the same way, Singapore exercises strategic restraint on promoting rules-based order while avoiding clear alignment amid US - China competition.

c.   **Economic Vulnerabilities and Strategic Exposure**.   Economic inter dependence generates both opportunity and vulnerability. UAE and Saudi Arabia despite expanding influence through Vision 2030 and port investments in Africa and South Asia remain vulnerable to maritime insecurity and regional tensions. Similarly, Pakistan's infrastructure-driven growth under CPEC heightens debt and dependency exposure.

d.   **Normative and Institutional Repositioning**.   Iran and South Africa adapt through alternative partnerships and institutional activism. Specifically, Iran leverages control of the Strait of Hormuz and Chabahar Port to offset sanctions while South Africa uses BRICS and the AU to bridge African–Asian interests, though at risk of straining Western relations.

13.   Those are proved that middle powers navigate a complex multi-polar order by leveraging diplomacy, economic interdependence, and selective defence cooperation (Irfan, 2023), (Vinay et al., 2024).

BEHAVIOURS OF MIDDLE POWERS IN THE IOR

14.   The IOR has become a core arena of strategic competition and cooperation among global powers. In this environment, middle powers' strategic behaviour focuses on preserving autonomy, protecting maritime interests and promoting regional stability while adapting to the influences of active major players (Pathak & Kumar, 2024; Nagy, 2022).

Strategic Flexibility and Hedging

15.   Middle powers' behaviour in the IOR is strategic flexibility that balancing relations among competing major powers through multi-alignment and hedging rather than choosing sides. These states pursue diversified partnerships to safeguard autonomy, manage economic exposure and sustain regional stability within an increasingly competitive Indo-Pacific order.

16.   Australia demonstrates a calculated model of strategic hedging. It strengthens its maritime deterrence through the QUAD and AUKUS, aligning with the United States and same time balance the China's influence. Yet, Australia sustains vital economic ties with China as its primary trading partner, reflecting a pragmatic blend of security dependence and economic necessity. This dual-track approach allows it to remain relevant in both Western and Asian security frameworks.

17.   Indonesia follows a non-aligned and autonomous path anchored in ASEAN centrality. It prioritizes regional dialogue and maritime cooperation, engaging both China and the United States in trade, infrastructure, and defence initiatives while coordinating closely with India on connectivity and maritime safety.

18.   In the Gulf, Saudi Arabia and the UAE diversify beyond traditional US alignment by engaging China through the BRI, expanding defence ties with India and strengthening regional cooperation with Iran. Saudi Arabia recently signed Strategic Mutual Defence Agreement (SMDA) with Pakistan. That agreement underscores evolving regional linkages. Meanwhile, Pakistan remains closely tied to China via CPEC but simultaneously engages Gulf states and the United States on counter-terrorism and maritime security. Collectively, these strategies demonstrate how middle powers navigate complex alignments to preserve autonomy, enhance resilience and maintain equilibrium in a multi-polar IOR.

Collaborative Engagement among Middle Powers

19.   Middle powers in the IOR build practical partnerships based on shared interests such as maritime security, trade and sustainable development. Among them, Singapore stands out by leveraging its neutrality and institutional capacity to acts as a diplomatic and logistical hub. By hosting international dialogues such as the Shangri-La Dialogue, it brings together middle and major powers to coordinate on regional security, maritime governance and crisis response.

20.   In the western IOR, South Africa uses platforms like BRICS and IORA to enhance African-Asian cooperation. It facilitates blue economy initiatives and port connectivity, linking the southern Indian Ocean littorals. Basically, these inter-linkages create a web of functional cooperation, strengthening regional stability and reducing dependency on great-power agendas.

Economic Diplomacy and Maritime Connectivity

21.   Economic diplomacy remains the core instrument of middle power strategy in the IOR. By investing in connectivity, trade and infrastructure. These states convert economic strength into strategic influence, supporting regional stability while advancing national interests.

22.   The UAE and Saudi Arabia have emerged as leading actors, using port investments and logistics networks to link the Middle East with Asia and Africa. Projects such as Jebel Ali (UAE), Duqm (Oman) and Hambantota illustrate ambitions to control key maritime nodes.

23.   Indonesia, strategically located at the heart of the IOR, attracts investment in ports, shipbuilding and renewable energy under its maritime vision with balancing Chinese inflows with Japanese and Western support. Those enhance access to global markets, reflecting competitive in economic dynamics. Hence, these initiatives demonstrate how middle powers employ economic pragmatism to advance autonomy while fostering sustainable development across the IOR.

Maritime Security and Strategic Stability

24.   Maritime security is a central element of middle power strategy in the IOR. Australia, Indonesia and Malaysia conduct coordinated patrols in the Malacca Strait, one of the world's busiest maritime choke-points. It strengthens collective deterrence and demonstrating regional ownership of security responsibilities. Complementary to this, Singapore contributes advanced surveillance, logistics support and information-sharing capabilities to multinational operations combating piracy and trafficking, enhancing operational readiness across the IOR.

25.   In the western IOR, South Africa and the UAE participate in anti-piracy and humanitarian missions. Besides, the UAE expanding its naval presence in the Red Sea and East Africa. Pakistan and Iran focus on protecting energy routes and maintaining deterrence through naval modernization and selective partnerships with China, Russia and India. These efforts illustrate how middle powers support regional maritime governance, preserve strategic autonomy and ensure the Indian Ocean remains secure, stable and open for trade.

26.   A prominent example is Australia–Indonesia cooperation, which includes joint naval patrols, counter-piracy operations and maritime awareness programmes. These initiatives illustrate how geographically important middle powers can reinforce regional security independently rather than major-power dominance.

Engagement with Small States

27.   Middle powers extend influence by engaging Small Island and coastal states through development, security and capacity-building initiatives. These partnerships enhance goodwill, strengthen legitimacy and expand access to strategic maritime zones.

28.   Australia and Indonesia support disaster relief, climate adaptation, and training programmes for Indian Ocean Island states through IORA initiatives. More importantly, the UAE and Saudi Arabia invest in ports and energy infrastructure in Sri Lanka, the Maldives and East Africa, reinforcing their logistical presence. In the same way, Singapore contributes technical expertise and financial assistance for port management and digital governance. These engagements benefit both sides: small states gain investment and capabilities, while middle powers secure reliable partners and greater influence across critical sea lanes.

29.   Middle powers in the IOR display adaptive, multi-dimensional, and pragmatic strategic behaviour, which shape the emerging maritime order of the 21st century. It was not defined by argumentative situations, but by connectivity, dialogue and shared resilience.

RECOMMENDATIONS

30.   The emerging regional and global dynamics of the IOR demands that middle powers to move beyond reactive balancing and develop proactive strategies that align national interests. Existing DIME based behaviour provides future geopolitical alignment of middle powers should aim for collective strategic agency, resilience and shared governance in a multi-polar maritime order.

Institutionalizing Middle Power Multilateralism

31.   Middle powers should deepen structured coordination mechanisms independent of major power blocs. Current platforms like the IORA and Indian Ocean Naval Symposium (IONS) can be elevated into more action-oriented institutions with middle powers leading specialized clusters such as maritime safety (Australia, Indonesia), blue economy (South Africa and UAE) and digital governance (Singapore and Malaysia).

32.   Facilitating dialogue by neutral mediator with increasing the polarization among major powers. Neutral middle powers like Indonesia, Singapore, and South Africa can form a 'Track 1.5 Dialogue Mechanism' involving major powers to mediate maritime and economic disputes within the IOR. As well as Creating a Middle Power Maritime Cooperation Forum could institutionalize policy convergence and enable joint initiatives on trade security, climate resilience and ocean governance.

Developing Strategic Economic Corridors Beyond Rival Blocs

33.   Middle powers should design and co-finance interlinked economic and digital corridors that connect their key ports and logistics hubs such as Linking Gwadar (Pakistan), Chabahar (Iran), Duqm (Oman), Jebel Ali

(UAE), Colombo (Sri Lanka) and Singapore. This Connectivity projects would reduce vulnerability to US-China economic polarization and foster a shared maritime economy.

Enhancing Maritime Domain Awareness (MDA) Through Shared Technology

34. Middle powers must enhance joint surveillance and situational awareness. They should integrate their national MDA systems into a 'Middle Power Maritime Information Network' aligning artificial intelligence and satellite data for real time monitoring of sea lanes and illegal maritime activities. Singapore, Australia and Indonesia could lead this initiative, linking with South Africa, UAE and Saudi Arabia to ensure comprehensive oceanic coverage. Such technological collaboration would serve dual purposes and enhancing maritime security and showcasing middle powers as responsible custodians of the global commons.

Establishing A Middle Power Maritime Security Compact

35. A light and flexible 'Maritime Security Compact' among middle powers can be developed for coordinated naval training, humanitarian assistance and disaster response. It would function as an operational partnership that enhances interoperability without provoking major power suspicion.

36. This initiative could include joint coast guard operations, anti-piracy patrols, and blue water training programs under common doctrines. UAE's logistical capabilities, Indonesia's strategic geography and Australia's advanced naval technologies can jointly provide a credible deterrent and cooperative security framework in the IOR.

Advancing Collective Voice In Global Governance

37. Middle powers should strengthen their collective influence in global maritime governance institutions such as the International Maritime Organization (IMO) and UN Ocean Conference. Coordinated policy advocacy on sustainable shipping, equitable ocean resources and freedom of navigation would ensure that the IOR's priorities shape global maritime norms rather than being dictated by major powers. Develop a 'Joint Middle Power Ocean Policy White Paper' and establish a policy coherence and present shared perspectives on emerging issues in every two years.

Building Strategic Partnerships with Small Island States

38. Middle powers should form a Middle Power–Small State Partnership Network to coordinate climate adaptation, maritime security, and sustainable fisheries management with island nations such as Sri Lanka, Maldives, Seychelles and Mauritius. Such engagement enhances legitimacy, extends influence into critical maritime zones, and balances great-power penetration of smaller states.

CONCLUSION

39.   The Contemporary realignment of Indian Ocean Region leading its to multipolar environment and positioning middle powers as pivotal actors shaping regional stability, maritime governance, and economic connectivity. Existing middle power states; Australia, Indonesia, Singapore, Pakistan, South Africa, UAE, Saudi Arabia, Iran and Malaysia leverage diplomacy, information, military capabilities and economic influence to preserve autonomy, manage great-power rivalry, and promote cooperative networks. Their strategic behaviour encompassing hedging, regional partnerships, maritime security and engagement with small island states reinforces a rules-based, resilient maritime order and display adaptive, multi-dimensional and pragmatic strategic behaviour; which shape the emerging maritime order of the 21st century. Moving forward from contemporary behaviour to more productive position, Middle powers' realignment to be strengthen by institutionalized collaboration, shared economic corridors and collective maritime security initiatives can strengthen their influence and ensure sustainable, stable and inclusive governance of the Indian Ocean.

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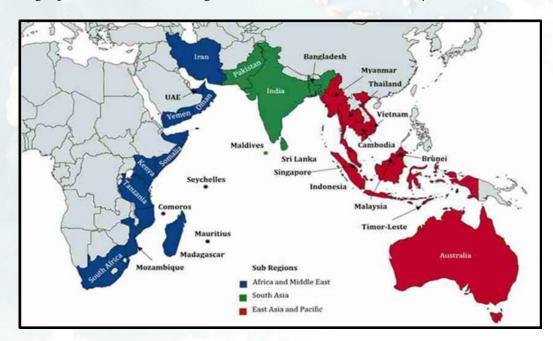Vinay, K.K., Slama, N. and Das, M. (2024): Global Geopolitical Impacts and Dynamics of the Indo-Pacific. IGI Global.

BETWEEN THE DRAGON AND THE ELEPHANT: THE STRATEGIC CONSEQUENCES OF CHINA−INDIA RIVALRY FOR DEVELOPING INDIAN OCEAN NATIONS

Lieutenant Commander (N) MKM Fernando

INTRODUCTION

1.   In the twenty-first century, the Indian Ocean has emerged as a strategic maritime theatre central to global trade, energy flows, and great-power competition. Major powers such as China and India now treat the region not merely as a transit zone but as a domain central to national security, economic influence, and regional order. China's efforts to secure its Sea Lines of Communication (SLOCs), ensure stable energy imports, and extend its maritime reach via the Belt and Road Initiative (BRI) and port diplomacy have shifted regional geopolitics. India, with long-held conceptions of maritime primacy in its near seas, views China's growing presence, dual-use infra-structure, and strategic port access as a challenge to its own influence and security.

Figure 1: Indian Ocean region
Source:www.politicsforindia.com

2.   This rivalry over naval power, infrastructure, trade routes, diplomatic partnerships, and influence with littoral states is further complicated by the instability in those states, Sri Lanka, Maldives, Bangladesh, Myanmar, and Nepal among them. Internal socio-political unrest can create strategic vacuums that external powers exploit, thereby heightening competition and risk of proxy conflict. Thus, while rivalry itself may seem inevitable, its trajectory and consequences are not. A managed bilateral dynamic between China and India becomes essential to avoid the destabilization of smaller Indian Ocean nations and deterioration of the regional maritime order.

3.   This paper proceeds in five parts: first, surveying the historical evolution of India–China relations; second, delineating the methodological framework; third, comparing China's and India's maritime policies and strategies; fourth, examining the impacts on littoral states and regional stability; and finally, synthesising findings and arguing for the necessity of strategic restraint and cooperative mechanisms.

Historical Trajectory of India–China Relations

a.   **Post-Colonial Solidarity and Early Distrust (1947–1976)**.   Initially, India and China shared anti-colonial aspirations, peaceful coexistence principles, and membership in the Non-Aligned Movement. The 1954 Panchsheel Agreement formalized five principles of interaction mutual respect, non-aggression, non-interference, equality, peaceful coexistence (Ministry of External Affairs India, 1954). However, territorial disputes over Aksai Chin and Tibet, rooted in colonial-era boundaries, strained relations. The Sino-Indian War of 1962 profoundly altered India's foreign-policy orientation, prompting increased military spending, a turn toward external alliances (notably with the Soviet Union), and a heightened sense of vulnerability (Stauffer, 1967; Limaye, 1962).

b.   **Normalization and Managed Competition (1976–2016)**.   Diplomatic relations were restored more fully post-1976. Rajiv Gandhi's 1988 visit blended diplomatic engagement with institutional mechanisms such as working groups on boundary issues (Carnegie Endowment, 2022). CBMs like the 1993 and 1996 agreements over the LAC helped reduce the risk of inadvertent clashes. Meanwhile, economic liberalization in both nations, and China's integration into global trade, made bilateral commerce a central component of the relationship. India–China trade surged from below USD 3 billion in 2000 to over USD 90 billion by 2018 (RIS, 2013; WTO, 2023). This period saw cooperation, but strategic asymmetries China's larger navy, deeper economic reach became increasingly evident. Projects such as BRI, and concerns over port infrastructure in Pakistan (Gwadar), Sri Lanka (Hambantota), and Colombo raised Indian strategic anxieties (EUISS, 2018; Haralambides, 2019).

c.   **Renewed Friction and Strategic Realignments (2017–2025)**.   The Doklam standoff in 2017, and more sharply the Galwan Valley clash of June 2020, marked a deterioration in bilateral trust. India responded with economic coercive measures (app bans, tightened investment rules), infrastructure development along the border, and strategic realignments (PIB, 2020; RSIS, 2022; CSDR, 2024). Meanwhile, China deepened its overseas military infrastructure (e.g. Djibouti, port development in Hambantota, Gwadar, and Kyaukpyu) and amplified maritime presence through naval patrols, research vessels, and dual-use facilities (ITF-OECD, 2019; Jaleel, 2023). India in turn has sought to strengthen its maritime policy

through new strategic vision frameworks (e.g. MAHASAGAR), bilateral and multilateral partnerships, and infrastructure diplomacy to reinforce its role as regional security provider (Lee Kuan Yew School, 2024; Asia Pacific Foundation, 2024).

METHODOLOGY

4.   To investigate the strategic consequences of Sino-Indian rivalry for developing Indian Ocean states, the study employs a qualitative multi-method framework, structured around:

a.   **Geopolitical Spatial Analysis**.   Examining strategic maritime nodes (e.g. Gwadar, Hambantota, Andaman-Nicobar, and Agalega Islands), choke-points, overseas bases, and the geography of maritime presence.

b.   **Economic Network Analysis**.   Using data on trade, infrastructure investment, port ownership, debt, operating rights, and financial assistance (grants and lines of credit) to map dependencies and leverage, sourcing data from governmental releases, think tanks, and media reportage.

c.   **Discourse and Policy Analysis**.   Analyzing official policy statements (e.g. China's MSR / BRI and India's SAGAR / MAHASAGAR), defense white papers, and speeches to trace how legitimacy, soft power, and narrative competition shape perceptions in littoral states.

5.   Combining these methods enables an understanding of both visible material competition (naval assets and port agreements) and intangible ones (influence, perception and legitimacy), and the region's responses to these pressures.

COMPARATIVE MARITIME POLICIES: CHINA AND INDIA

China's Strategy

Figure 2: China Trading Partners in the Indian Ocean
Source:www.carnegieendowment.org

a.   **Naval Expansion and Operational Reach**.   China has transformed its navy into a force with blue-water capability. Investments in carriers, submarines, surface combatants, research and survey vessels underscore this transformation. Dual-use infrastructure and sustained deployments in the Indian Ocean play both symbolic and practical roles in allowing China to protect its shipping lanes and project power (DrishtiIAS, 2025; Swadeshi Shodh, 2025).

b.   **Infrastructure Diplomacy (String of Pearls/Dual Use Ports)**.   Key ports developed or leased to Chinese firms in Sri Lanka (Hambantota, 99-year lease in 2017), Pakistan (Gwadar under CPEC), Myanmar (Kyaukpyu), Bangladesh (Chittagong projects), and the Maldives serve both commercial and strategically latent military roles (DrishtiIAS, 2025; Modern Diplomacy, 2024).

c.   **Economic Leverage**.   Through BRI and CPEC projects, China leverages infrastructure investing as a means of influence. However, concerns over debt sustainability, transparency, and local governance arise (CFR, 2025; Asia Pacific Foundation, 2024).

d.   **Partnerships and Military Presence**. Overseas naval base in Djibouti (2017); increasing deployments of PLA vessels (combat, survey, and anti-piracy). Research vessels such as Xiang Yang Hong 03 active in Bay of Bengal and the Arabian Sea are viewed by India and littoral states with suspicion (Modern Diplomacy, 2024; East Asia Forum, 2024).

e.   **Regional Tensions and Stand-Offs**.   Chinese surveillance, dual-use port facilities, submarine presence, and research operations near India's maritime boundaries provoke Indian countermeasures and diplomatic friction (Modern Diplomacy, 2024; East Asia Forum, 2024).

India's Strategic Response

a.   **Vision Frameworks and Soft Power**.   India's SAGAR vision (2015) evolved into MAHASAGAR, signaling expanded ambitions in maritime security, diplomacy and regional integration (The Diplomat, 2025; Asia Pacific Foundation, 2024). Projects like Mausam emphasize cultural ties and heritage diplomacy to counterbalance China's infrastructure-first model (Project Mausam, 2014).

b.   **Naval Modernization and Force Posture**.   Key naval acquisitions (such as INS Vikrant, launches of submarines, destroyers, and frigates) signal efforts to enhance power projection and deterrence (AP News, 2025; India Defense News, 2023). India has also developed infrastructure in its own archipelagos (INS Jatayu in Lakshadweep, jetty/airstrip in Agalega Islands) to extend surveillance and operational reach (Asia Pacific Foundation, 2024; The Diplomat, 2025).

c.   **Strategic Partnerships, Multilateral Drills, Exercises**.   India's expanding role in the Quad, Milan naval exercise (Milan 2024 with over 50 countries), new drills with African nations (AIKEYME 2025), and bilateral agreements (e.g. with Australia for submarine rescue, defence industry cooperation) illustrate India's strategy to build collective security and deterrence (Lee Kuan Yew School, 2024; AP News, 2025; Reuters, 2025).

d.   **Infrastructure Diplomacy and Economic Assistance**.   India has made investments and agreed to manage or assist in port operations abroad (e.g. Sittwe port in Myanmar, operations in Agalega) (Asia Pacific Foundation, 2024). India has also extended lines of credit and economic support to nations like Mauritius US$680 million in 2025 for infrastructure, healthcare, and maritime security (Reuters, 2025). Financial diplomacy reinforced ties in the Maldives via credit lines, support for port redevelopment, and agreements for cooperation (AP News, 2025).

e.   **Domain Awareness and Legal/ Institutional Tools**.   India has enhanced its maritime domain awareness systems, set up coastal radar cooperation with littoral states, leveraged legal frameworks (e.g. UNCLOS, continental shelf claims as in Sri Lanka's extended shelf) and deployed naval patrols and operations such as Operation Sankalp to secure trade routes and respond to piracy/tension in strategic waterways (East Asia Forum, 2024; Indian Navy, 2024).

IMPACTS ON LITTORAL STATES AND REGIONAL STABILITY

6.   The rivalry imposes both opportunities and risks for Indian Ocean littoral states. Many of these states find themselves in strategic balancing acts, negotiating influence with both India and China, often while dealing with internal governance, economic instability, and social unrest.
Geopolitical Effects and Diplomatic Tightrope

a.   **Strategic Balancing**.   Sri Lanka has been especially illustrative. Its extended continental shelf claims intersect with India's applications to the ISA (International Seabed Authority), leading to tension. Chinese research vessels and maritime operations near Sri Lankan shores have prompted Indian diplomatic pressure and moratorium policies (East Asia Forum, 2024). The Hambantota port lease remains controversial in domestic politics in Sri Lanka.

b.   **Influence Shifting with Changing Governments**.   Maldives underwent political changes with pro-China leadership in 2023, shifting back toward India in 2025, when Indian Prime Minister Modi visited and announced financial assistance and a proposed free trade agreement (AP News, 2025). Thus, governance in littoral states determines how rivalry plays out.

Economic Leverage, Debt, and Dependency

a.   **Debt Sustainability Issues**.   Large Chinese infrastructure deals often entail long-term loans or leases (Hambantota, Gwadar, and etc.). Some littoral states find themselves under financial stress when project revenue or expected returns do not materialize, amplifying domestic discontent (CFR, 2025; Asia Pacific Foundation, 2024).

b.   **Aid Versus Benefits**.   India's economic assistance tends to focus on infrastructure, healthcare, surveillance, and limited port development; while these are helpful, India's capacity relative to China is smaller. While population and elites often welcome both investments, local perceptions can shift if benefits are not visible or costs (e.g. debt, and sovereignty trade-offs) are high.
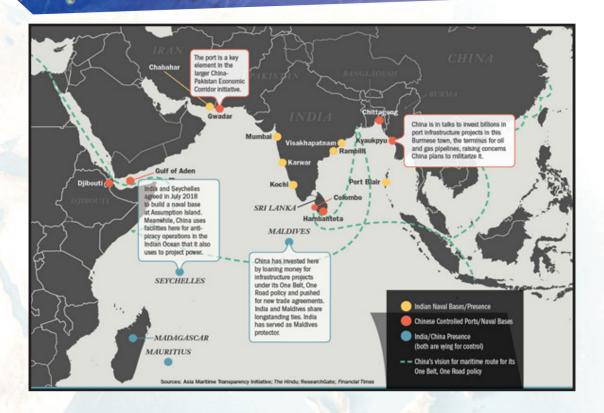
Security Risks and Non-Traditional Threats

    a.   **Maritime Domain Awareness and Surveillance**. Research vessels, survey ships, dual-use facilities are all part of a grey-zone contest. China's use of "scientific" and survey missions (e.g. Xiang Yang Hong 03) for intelligence gathering has worried India and littoral states (Modern Diplomacy, 2024). India's counter-surveillance, legal claims, and moratoriums attempt to respond, but these become politicized and contested.

    b.   **Proxy Rivalry Potential**. As littoral states are courted by both powers, opposition groups or political factions may back or resist one side, contributing to internal instability. For example, in Bangladesh, China's increasing infrastructure presence coincides with debates over sovereignty, transparency, and foreign influence. Social unrest tied to inflation, governance, or environmental fallout from port projects may exacerbate instability.

    c.   **Environmental and Maritime Governance Concerns**. Large infrastructure projects, port operations, dredging, and maritime pollution are increasingly sources of contestation. Littoral states may face ecological damage, fisheries impacts, or maritime boundary disputes as a result of expanded port and naval activity.

OVERLAPPING INTERESTS AND STRATEGIC CONSEQUENCES

7.   While competition is intense, India and China do share overlapping interests, which both exacerbate and constrain rivalry.

    a.   **Shared Dependence on Sea Lanes**. Both states must secure energy imports and trade routes passing through choke points (Malacca, Hormuz, and Strait of Mozambique). Disruption to these routes harms both economies, encouraging at least tacit cooperation in some instances (e.g. anti-piracy).

    b.   **Shared Non-Traditional Challenges**. Piracy, disaster relief, humanitarian assistance, climate change (sea-level rise, storms, and coastal erosion), pandemics all call for regional cooperation where neither China nor India benefits from instability.

    c.   **Institutional Frameworks and Norms**. UNCLOS, ISA, IORA, and multilateral exercises (e.g. Milan and AIKEYME) generate spaces where rules can constrain escalation and facilitate trust building.

Figure 3: India and China's Military deployment in the IOR
Source: www.carnegieendowment.org

8. However, overlapping interests do not automatically translate into cooperation. Strategic distrust, asymmetry of power, domestic politics, and zero-sum narratives hinder collaboration.

STRATEGIC IMPLICATIONS AND THE CASE FOR MANAGED RIVALRY

9. From the analysis emerge several strategic implications for developing Indian Ocean nations and for the regional order:

a. **Risk of Escalation via Miscalculation**.   As both states deploy surveillance vessels, submarines, and dual-use facilities near contested areas, the chance of unintended incidents increases.

b. **Institutional and Normative Vacuum in Littoral States**.   When governance is weak or political transitions occur, external powers can exploit legal ambiguities continental shelf claims, maritime boundary delimitation, port operations, foreign naval access.

c. **Strategic Dependency and Erosion of Sovereignty**.   Debt-laden infrastructure, long leases, or agreements with insufficient transparency can erode sovereignty and generate domestic backlash, possibly destabilizing regimes.

d.   **Pressure on Smaller States to "Pick a Side"**.   As rivalry intensifies, littoral countries may feel compelled to align with one power strategically or economically, reducing their strategic autonomy.

To Mitigate These Risks, a Framework of Managed Rivalry is Needed

a.   A China–India maritime code of conduct, formal or informal, to define acceptable behaviour around naval deployments, dual-use infrastructure, research vessels, and port access.

b.   Crisis communication channels; perhaps an IOR maritime safety and incident center rotated among littoral states or under IORA.

c.   Transparency in infrastructure investment: shared debt data, open contract terms, and environmental impact assessments.

d.   Joint initiatives in non-traditional security: anti-piracy, disaster relief, joint environmental protection, maritime scientific cooperation under neutral oversight.

CONCLUSION

10.   The rivalry between China and India in the Indian Ocean is deeply rooted in history, geography, and strategic necessity. Over recent decades, China has advanced its capabilities and infrastructure diplomacy; India has responded with naval modernization, strategic partnerships, and economic diplomacy. The competition plays out not just in military posture but in infrastructure deals, trade, diplomacy, and narrative legitimacy.

11.   Littoral states are the principal theaters and may be the biggest winners or losers depending on how rivalry is managed. Domestic instability, debt pressures, and environmental costs represent serious vulnerabilities. If mismanaged, Sino-Indian competition could yield strategic vacuum, proxy conflicts, or regional disorder.

12.   Yet, mutual interests, shared threats, and overlapping dependencies offer room for cooperation and restraint. The future of the Indian Ocean depends less on which power dominates and more on whether China and India can moderate their rivalry with transparent, predictable, and regulated competition. Strategic restraint, careful diplomacy, and joint engagement in non-traditional security issues are not just ideal they may be essential to prevent the Indian Ocean from becoming a perpetual battleground rather than a domain of trade, connectivity, and stability.

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