

AN OCEAN OF OPPORTUNITIES

ENHANCED PEACE, SECURITY &
COOPERATION IN THE INDIAN OCEAN REGION



रक्षा मंत्रालय
MINISTRY OF
DEFENCE
भारत सरकार



रक्षा उत्पादन विभाग
DEPARTMENT OF
DEFENCE PRODUCTION
GOVERNMENT OF INDIA

SYNERGY OF THE SEAS -

ENHANCED PEACE,
SECURITY & COOPERATION
IN THE INDIAN OCEAN



सत्यमेव जयते

प्रधान मंत्री
Prime Minister

MESSAGE

It is a pleasure to learn that Aero India 2021 is being held at Bengaluru from 3rd to 5th February 2021.

The IOR Defence Ministers' Conclave in the backdrop of Aero India 2021, Asia's largest defence and aerospace exhibition in hybrid mode, adds to its significance. The release of the book titled 'Enhanced peace, security and cooperation in the Indian Ocean' at the Conclave is thoughtful.

The Conclave will offer an engaging platform to deliberate upon various aspects of mutual interest for IOR nations. I am sure that the discussions will detail towards leveraging resources and best practices in Indian Ocean, enhancing co-operation and information sharing, developing new technologies and scaling up industrial manufacturing. It will surely strive towards a roadmap for shared maritime interests and safer maritime ecosystem of the region.

The book containing insightful articles by national and international domain experts and stakeholders will help broad-base the discussions on important issues such as enhancing bilateral cooperation, capacity-building, resource sharing and disaster resilience.

The occasion will provide the participants an opportunity to develop a finer understanding of the strengths and emerging trends, paving way for deeper engagement between nations, furthering peace and prosperity in the region and contributing to the global good.

Best wishes for successful deliberations at the Conclave. May the compilation be widely read and liked.

(Narendra Modi)

New Delhi
माघ 10, शक संवत्, 1942
January 30, 2021

राजनाथ सिंह
RAJNATH SINGH



रक्षा मंत्री
भारत
DEFENCE MINISTER
INDIA

MESSAGE

It is a matter of great pride for the Nation that 13th edition of the biennial mega air exhibition AERO INDIA 2021 is being organized at Bengaluru from 03rd-05th Feb, 2021 by Department of Defence Production, Ministry of Defence. The event covers the entire spectrum of country's defence and security interests. I am confident that the central theme of Defence Ministers' Conclave in AERO INDIA 2021 'Enhanced Peace, Security and Cooperation in the Indian Ocean' would enhance cooperation and capacity building in Defence Industry Ecosystem of IOR countries.


AERO INDIA 2021 brings leading technologies like Artificial Intelligence, Robotics and Quantum Computing etc under one roof to provide myriad opportunities for government, private manufactures, start-ups and the entire industrial ecosystem to showcase their equipment and explore strengths and capabilities.

Several path breaking initiatives have also been introduced in India towards simplification, rationalisation and decentralization of decision making and streamlining of procedures, which have resulted in ease of doing business and production of quality products in the defence sector to boost export opportunity for Indian Aerospace and Defence Industry.

The book 'Enhanced Peace, Security and Cooperation in the Indian Ocean' is an effort to promote shared prosperity, boost, investment, expand manufacturing and accelerate economic growth of the defence industry in the Indian Ocean Region. It contains articles from eminent authors of IOR countries and thus aims to acquaint all the Indian Ocean countries with each others capabilities so as to enhance synergy and cooperation.

"Jai Hind"

Date: 20 Jan, 2021
Place: New Delhi


(Rajnath Singh)



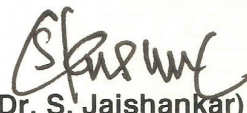
MESSAGE

The Indian Ocean has historically been one of the great lifelines of our planet, linking vast multitudes across many geographies. Maritime rhythms may have been the traditional driver of its activities; they are now replaced by a more compelling industrialized commerce. The Ocean has always had its distinctive character, being a beneficiary of a millennia of traditions, practices and faiths. As a result of both established culture and recent politics, it has a pluralistic ethos with a broad stakeholdership.

Located at its very centre, India has both shaped and been shaped by the Ocean. Its growing centrality to the rise of Asia is increasingly evident. The evolution towards the larger Indo-Pacific also highlights the impact of India's broadening horizons. There is no question that India's greater economic and strategic integration with the world will have direct maritime implications, most notably in the Indian Ocean.

Therefore, it was natural for India to articulate a comprehensive maritime outlook, appropriately named SAGAR (Security and Growth for All in the Region). This includes safeguarding our mainland and islands, ensuring a safe, secure and stable Ocean, deepening neighbourly cooperation while strengthening capacities of others, envisaging collective action and cooperation to advance peace and security, and cooperatively enhancing sustainable development. This outlook has led India in recent years to expand its partnerships across the Indian Ocean, enabling better maritime domain awareness and creating greater collective capacities. It is only appropriate that the Defence Ministers' Conclave on the sidelines of AERO INDIA-2021 would now deliberate on many of these issues.

The book "Enhanced Peace, Security and Cooperation in the Indian Ocean" being released on that occasion is a collection of thoughts and insights from Indian Ocean countries. I am confident that it would contribute to a better understanding of the challenges confronting the Indian Ocean and the Indo-Pacific and help us in our search for solutions.


(Dr. S. Jaishankar)

PREFACE

AERO INDIA 2021 is an important milestone in the progress of the nation to reinforce our statement of intent to make India a leader in Aerospace and Defence industries, from design to production, with active participation of public and private sector fulfilling the objective of self reliance as well as demand of other friendly countries. Since the last few editions, Aero India has been a true reflection of its tagline “Runway With A Billion Opportunities”. We have reached it after an extraordinary journey of many years of relentless pursuit by strategic experts for peace and prosperity, the enduring quest of our researchers and scientists to use science for the welfare of humanity and commitment and the dedication and hard work of our engineers and technicians.

The IOR defence ministers conclave is another opportunity as well as initiative for the furtherance of peace, stability, and prosperity in the Indian Ocean region through defence diplomacy. We can neither be secure nor grow without our maritime neighborhood also being secure and prosperous. Defence industry ecosystems are essential to arriving at peaceful living in an economical manner. Amid these developments, this book ‘ Enhanced Peace, Security and Cooperation in the Indian Ocean’ is an effort to collate the recommendations of various national and international domain experts and luminaries on peace, security, cooperation, and constructive engagement in capacity building, resource sharing, disaster risk reduction etc.

Our sincere gratitude to all authors who have contributed to the book. We hope that this book would find resonance with readers and serve to inform and educate them on key issues affecting all Indian Ocean Countries.

DISCLAIMER

The views, suggestions and opinions expressed in this publication are solely of the author(s) in their personal capacity and do not necessarily reflect the position of any of the Indian or international armed forces, military, paramilitary organisations, law enforcement agencies, Or The Government Of India or any government. Attributability of content lies purely with the author(s).

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CHAPTER 1
PEACE



INDIA IN IOR: HARBINGER OF SAFE, SECURE AND CLEAN SEAS TOWARDS PROGRESSION OF BLUE ECONOMY

By Rajiv Bhatia

INTRODUCTION

The Indian Ocean Region (IOR) Defence Ministers' Conclave on 4 February 2021 presents an important opportunity to reflect on the fundamental inter-linkage between defence and development, security and prosperity. Defence and security as well as development and prosperity are required; a state or a region cannot do with just one or the other. An integrated security-development matrix needs to be pursued together as national or pan-regional objectives.

A realistic perspective, therefore, envisages appropriate deployment of and balance between hard and soft power. This mindset governs India's policy towards the IOR which is a subset of the larger Indo-Pacific Region, the favourite term today with most governments and scholars of strategic affairs.

This essay delves into the rationale and scope of the Blue Economy as an instrument to spur broader and speedy economic development in the IOR. It has become indispensable, given the increasing pressures of the global population on land-based resources and limitations of conventional economy to satisfy the need for more employment opportunities and equitable growth.

IOR

The IOR has gained strategic, political and economic weight in the 21st century. This will continue in the present decade and beyond. The complexity of inter-state relationships too has grown, with the shift of power from the west to the east; the rise of China, India and others; the increase in China's assertiveness with an expansionist and aggressive intent; and the quest of the major players for a workable balance of power.

While the unfolding rivalry and strife have been a cause of concern and some action, it is in the area of development that competitive energy can be positively harnessed and sound regional cooperation pursued. Exploiting the full potential of a sustainable Blue Economy offers a promising path.

IORA AND BLUE ECONOMY

Such positive thinking guided the Indian Ocean Rim Association (IORA) to begin championing the cause of a multi-dimensional growth of the Blue Economy. It is fair to examine as to what the Blue economy is. While no universally acceptable definition is available, this author helped in crafting a comprehensive definition which is given below:

The Blue Economy encompasses a wide range of economic activities pertaining to sustainable development of resources and assets in the oceans, related rivers, water bodies and coastal regions – in a manner that ensures equity, inclusion, innovation and modern technology. Subtly distinguishable from the “ocean economy” in terms of nuance and emphasis, the Blue Economy is a newer and more contemporary term, popular with Small Island Developing States (SIDS) as well as international organisations, media, experts and governments in a growing number of countries.¹

Not surprisingly, the IORA has been an early and steady champion of the Blue Economy, as its membership exclusively comprises a cross-section of countries, rich and poor, whose shores are washed by the waters of the Indian Ocean. The Association’s website stresses the former’s commitment to “growing the Blue Economy in a sustainable, inclusive and people-centered manner.”² Its decision-making chronology is noteworthy:

October 2014: Blue Economy was recognised as a special focus area at the 14th IORA Ministerial Meeting in Perth. It was assessed to have potential for “generating employment, food security, poverty alleviation and for ensuring sustainability in business and economic models in the Indian Ocean.”³

1 FICCI 2017 Knowledge Paper. https://www.gatewayhouse.in/wp-content/uploads/2017/06/FICCI_Blue-Economy-Vision-2025.pdf

2 Blue Economy. <https://www.iora.int/en/priorities-focus-areas/blue-economy>.

3 Ibid.



September 2015: IORA's first Ministerial Conference on the Blue Economy, held in Mauritius, resulted in a declaration calling for harnessing the oceans and maritime resources to drive economic growth, while safeguarding sustainability and environmental protection.

2017: The year saw some progress. First, at the Association's first-ever summit, held in Jakarta in March, the Blue Economy was recognised as a major cross-cutting theme requiring the member governments' special attention. The Jakarta Concord emerged, so did the Action Plan (2017-21) which led to the establishment of the Working Group on Blue Economy a little later. Second, Indonesia also hosted the second Ministerial Conference on Blue Economy in May under the title 'Financing the Blue Economy', which produced a substantive statement of principles, elements and guidelines that could shape regional cooperation.

September 2019: The third Ministerial Conference on Blue Economy took place in Dhaka, which focused attention on 'Promoting Sustainable Blue Economy – making the best use of opportunities from the Indian Ocean.' Speaking at this conference, Sheikh Hasina Wazed, the prime minister of Bangladesh, pointed out, "There is an intricate relation between peace, security and sustainable development," adding that the region should "simultaneously look Blue Economic growth and think blue."⁴

⁴ 'Third IORA Ministerial Blue Economy Conference', IORA, 6 September 2019. <https://www.iora.int/en/events-media-news/news-updates-folder/third-iora-ministerial-blue-economy-conference>.

December 2020: The most recent IORA Council of Ministers Meeting, hosted by the UAE in virtual format, took note of cooperation possibilities in this domain. The representative of Bangladesh, the next chair of IORA, highlighted the significance of cooperation in the areas of fishing, shipping, maritime safety and security, tourism, and disaster management.⁵

INDIA'S PERSPECTIVE

India enjoys a pivotal position in the Indian Ocean. It accords a high priority to its relations with the region. New Delhi is deeply committed to the success of the IORA (earlier known as IOR-ARC), an institution which was established in March 1997, following the interaction between South Africa's President Nelson Mandela and the Indian leadership in January 1995. It registered modest success in its early years. Its reinvigoration began later, with India as the Chair during 2011-13. Subsequent Chairs – Australia, Indonesia, South Africa and the UAE – have carried forward this process, with the Blue Economy emerging as a central theme for the IORA.

India's perspective on the Blue Economy has been shaped by the policies of the government and studies by business leaders, maritime experts and think tanks.

The government's approach was articulated by Prime Minister Narendra Modi in a series of speeches between 2015 and 2020, especially those delivered in Mauritius (2015), Singapore (2018) and Thailand (2019). His enunciation of the concept of SAGAR ('Security and Growth for All in the Region'), an inclusive Indo-Pacific, and the Indo-Pacific Oceans' Initiative (IPOI) brought together the security and development dimensions. Support for a suitable framework for the development of Blue Economy was also voiced. This is built around India's own Sagarmala Programme, an ambitious \$120-billion initiative to upgrade and further develop the country's coastal and maritime infrastructure, keeping in mind the developmental and security elements of the Blue Economy like port

5 Rear Admiral (Retd.) Md. Khurshed Alam, BN Secretary, Maritime Affairs Unit of the People's Republic of Bangladesh, 'Official Press Release: 20th IORA Council of Ministers Meeting on 17 December 2020 held by the United Arab Emirates, virtually', IORA News, 18 December 2020. <https://www.iora.int/en/events-media-news/news-updates-folder/official-press-release-20th-iora-council-of-ministers-meeting-on-17-december-2020-held-by-the-united-arab-emirates-virtually>.

modernization, connectivity, port-linked industrialisation and coastal community development.

New Delhi has since been proactive in its dialogues and attempts to forge cooperation centered around the Blue Economy, with South Asian neighbours, ASEAN, Australia and Japan, African partners and BRICS.

Other institutions in India too have been active. The NITI (National Institution for Transforming India) Aayog, a policy think tank of the Government of India, undertook a detailed multi-sectoral study of maritime issues, including the Blue Economy. Reports of its seven working groups were released recently. Indian think tanks like RIS, ORF and Gateway House have been engaged in research and programmes to enhance public awareness about the issues and stakes involved.

Significant also is the role of the Federation of Indian Chambers of Commerce and Industry (FICCI), a premier national business chamber, in researching and disseminating knowledge about the Blue Economy within its vast corporate membership and its partners. In recent years, it held a series of business interactions in coastal India and sustained outreach with potential external partners such as the EU, Norway, France, Germany etc. to promote the Blue Economy. Its first publication, Blue Economy Vision 2025: Harnessing Business Potential for India Inc and International Partners (2017)⁶ was formally presented the same year at the IORA senior officials' meeting in Jakarta.⁷ This was followed by a second publication in 2019 on Blue Economy: Global Best Practices – Takeaways for India and Partner Nations.⁸

This increased research and promotional activity have created better awareness within India, of the Blue Economy and its potential to harness “both mature and new sectors ranging from ports and shipping, fisheries and aquaculture to marine bio-technology, renewable energy and deep-sea mining.”⁹

6 <http://www.ficci.in/desk-study-page.asp?spid=20896&deskid=54535>.

7 Rajiv Bhatia, 'Indian Ocean Rim Association Senior Officials Meeting', Gateway House, 25 May 2017. <https://www.gatewayhouse.in/iora-senior-officials-meeting/>

8 <http://ficci.in/spdocument/23166/Blue-Economy-Business.pdf>

9 Rajiv Bhatia, Inaugural Address entitled 'Indo-Pacific, the contested theatre' at International Seminar on "Indo-Pacific: Emerging Dynamics", hosted by UGC Center for Maritime Studies, Pondicherry University, 21 February 2019.

While Indian business has not actively set out a company-specific strategy for the Blue Economy, Indian venture capitalists and social enterprises have independently seized regional opportunities. For example, in 2017 Aavishkar-Intellicap Group, an Indian-origin, Singapore-based social impact venture fund, made a \$2 million investment in a fishing community in Sumbawa island in the strategically important Lesser Sunda region of Indonesia.¹⁰

The business and strategic community are now joining hands to seriously explore the economic potential. During October 2020-January 2021, a series of six dialogue sessions called the 'Quadrilateral Virtual Series on Blue Economy – India's Pathway to Sustainable, Secure and Resilient Economy' were hosted jointly by Konrad Adenauer Stiftung (KAS), National Maritime Foundation (NMF), The Energy and Resources Institute (TERI), and FICCI, involving a large number of domain experts. The report on their deliberations is awaited.

POLICY SUGGESTIONS

The Conclave of IOR's Defence Ministers, hosted by India's Ministry of Defence in collaboration with the Ministry of External Affairs, is a valuable platform to jointly develop dimensions of regional cooperation. Hence a few important policy suggestions:-

1. Development of the Blue Economy requires a comprehensive approach covering its three pillars: security, sustainability and business profitability. A healthy ocean alone can produce robust economic opportunities and address issues like climate change, biodiversity and food security. To ensure clean oceans, a Public-Private Partnership (PPP) is essential. Practical ways to nurture it should be a major policy objective.
2. Full potential of the traditional sectors of Blue Economy such as fisheries and aquaculture, shipping and port development may be leveraged by increasing investments in building infrastructure, human resources, financing and governance systems for ocean development.

¹⁰ For details, see: Manjeet Kripalani, 'Innovation's role in the Blue Economy', Gateway House, 6 September 2017.: <https://www.gatewayhouse.in/blue-economy-in-taiwan/>

3. Sustainable development and green growth are the new paradigms. Requisite financial tools are being put in place. Green or blue financing generated through regular budgetary allocations, business investments including FDI and equity, and development assistance should be stepped up and publicized widely to secure greater business engagement.
4. Additionality in the Blue Economy's contribution to the economy will be ensured only if the power of technology is optimally deployed. In this regard, the relevance of the Fourth Industrial Revolution (4IR) technologies such as Artificial Intelligence and Machine Learning is self-evident. A suitable policy framework and financial incentives are required to help entrepreneurs in utilising the new technologies.
5. India, together with the next two chairs of IORA – Bangladesh and Sri Lanka – should consider hosting a well-designed Regional Conference on the 'Business Perspectives of the Blue Economy' in 2021, with the assistance of relevant specialised institutions.

CONCLUSION

At the launch of the Sagarmala Programme in March 2015. PM Modi stated, "Investing in the maritime sector is not only investing in one's own future, but on the future of the planet and that of the coming generations."¹¹ He presented an updated view on the Blue Economy in January 2021. While inaugurating the Kochi-Mangaluru gas pipeline to the nation, he observed, "Blue Economy is going to be an important source of 'Atmanirbhar Bharat'."¹²

Self-reliance and interdependence within the IORA can turbo-charge this single lane of regional cooperation and conservation, thus setting the right example.

11 Prime Minister Modi, 'Release of National Perspective Plan, Sagarmala Programme', Inauguration of Maritime India Summit 2016, 14 April 2016. <https://www.narendramodi.in/pm-modi-at-the-inauguration-of-maritime-india-summit-2016-in-mumbai-440341>.

12 'PM dedicates Kochi-Mangaluru Gas Pipeline to the Nation', 5 January 2021. <https://www.narendramodi.in/prime-minister-narendra-modi-dedicates-kochi-mangaluru-natural-gas-pipeline-to-the-nation-553214>.

ABOUT THE AUTHOR

Rajiv Bhatia is a Distinguished Fellow, Foreign Policy Studies Programme at Gateway House. He is a member of CII's two bodies: International Trade Policy Council and Africa Committee. He served as Chair of FICCI's Core Group of Experts on BIMSTEC and continues to head its Task Force on the Blue Economy. He is a founding member of the Kalinga International Foundation. As Director General of the Indian Council of World Affairs (ICWA) from 2012-15, he played a key role in strengthening India's Track-II research and outreach activities.

During a 37-year innings in the Indian Foreign Service (IFS), he served as Ambassador to Myanmar and Mexico and as High Commissioner to Kenya and South Africa. He dealt with a part of South Asia, while posted as Joint Secretary in the Ministry of External Affairs. A prolific columnist, who has also written a critically acclaimed book, *India-Myanmar Relations: Changing Contours* (Routledge), he is a frequent speaker on foreign policy issues in India and abroad. He was Senior Visiting Research Fellow during 2011-13 at the Institute of South East Asian Studies (ISEAS), Singapore. He holds a master's degree in political science from Allahabad University.

INDIA'S APPROACH TO THE INDO – PACIFIC REGION

By Gautam Bambawale

Even before then Japanese PM Shinzo Abe spoke at the Indian Parliament on 22nd August 2007 about the 'confluence of the two seas'¹ it was already becoming increasingly apparent that the Indo – Pacific was a natural region criss-crossed and straddled by the sea lanes of communication. Increasing Asian prosperity and ever enhancing participation in global trade by countries in this region, ensured that vast amounts of goods were carried over these waters in a seamless manner. Just as the economic welfare of nation states in this geography was intertwined with unimpeded commerce and overflight, maritime disputes particularly in the South China Sea continued to roil the region. The Indo – Pacific ocean system carries approximately 65% of world trade while for India its importance is clear from the fact that 90% of our trade traverses these waters.²

US attention and focus on this region dates back to the Second World War but under the Obama Presidency we witnessed the “pivot” or “rebalance” towards Asia. There could be little doubt that this was America's response to the continuing rise of China which in turn clearly enunciated its desire to straddle Asia as an unchallenged giant. Under President Trump, the United States Government increasingly focused on the Indo – Pacific and on 10 November 2017 at Da Nang, Vietnam he asserted “I've had the honor of sharing our vision for a free and open Indo-Pacific – a place where sovereign and independent nations, with diverse cultures and many different dreams, can all prosper side by side, and thrive in freedom and peace”³. Later, the Trump Administration reconstituted the US military Pacific Command as the Indo-Pacific Command, indicating clearly its seriousness in tackling problems and issues, challenges and opportunities in this geography.

1 Ministry of Foreign Affairs of Japan www.mofa.go.jp “Confluence of the Two Seas” Speech by H.E. Shinzo Abe, Prime Minister of Japan at the Parliament of the Republic of India on August 22, 2007.

2 Ministry of External Affairs, Government of India www.mea.gov.in Foreign Secretary Harsh V. Shringla's speech at Policy Exchange, London on November 3, 2020

3 The White House, www.whitehouse.gov Remarks by President Trump at APEC CEO Summit, Da Nang, Vietnam on November 10, 2017

In the meanwhile, India – United States relations had been transformed by the nuclear deal of 2005 and the two ‘estranged democracies’⁴ had commenced a slow but steady rapprochement which had caught the attention of the world. Many observers and commentators had correctly analyzed the shift from the traditional nomenclature of Asia – Pacific to the new Indo – Pacific aimed at bringing India into the equation and hoping that it would balance out another big Asian state with an authoritarian bent of mind. The India – U.S. Joint Statement of 2 March 2006, at the conclusion of a State visit to India by then US President George W. Bush clearly indicates this by stating, “the successful transformation of the U.S. – India relationship will have a decisive and positive influence on the future international system as it evolves in this new century”⁵.

The recent and early declassification of the Trump Administration’s “U.S. Strategic Framework for the Indo – Pacific” of 2018, makes this role for India even more clear and apparent when it asserts that, “a strong India, in cooperation with like-minded countries, would act as a counterbalance to China”. Amongst the actions it recommends is “align our Indo – Pacific strategy with those of Australia, India and Japan”⁶.

For its part, China assumes that given India’s long colonial experience and impact, it will continue to sustain and give preponderance to strategic autonomy in its policy making which will ensure it balances and stays relatively neutral between the U.S. and China. However, Chinese actions, particularly its provocations on the undemarcated border with India are bound to have repercussions for Indian policy. China’s attempts at military coercion and the so-called ‘salami slicing’ tactics it has undertaken in eastern Ladakh since May 2020 has clearly negatively impacted bilateral India – China ties. Given the asymmetry in national power between India and China, such crude actions by China will not merely agitate Indian public opinion but will also push the Government of India into building the balancing coalitions which are necessary to protect its territorial integrity and preserve its national sovereignty.

4 Dennis Kux, *India and the United States: Estranged Democracies*, National Defense University Press, Washington D.C. 1993.

5 Ministry of External Affairs, Government of India, www.mea.gov.in India – US Joint Statement, March 2, 2006.

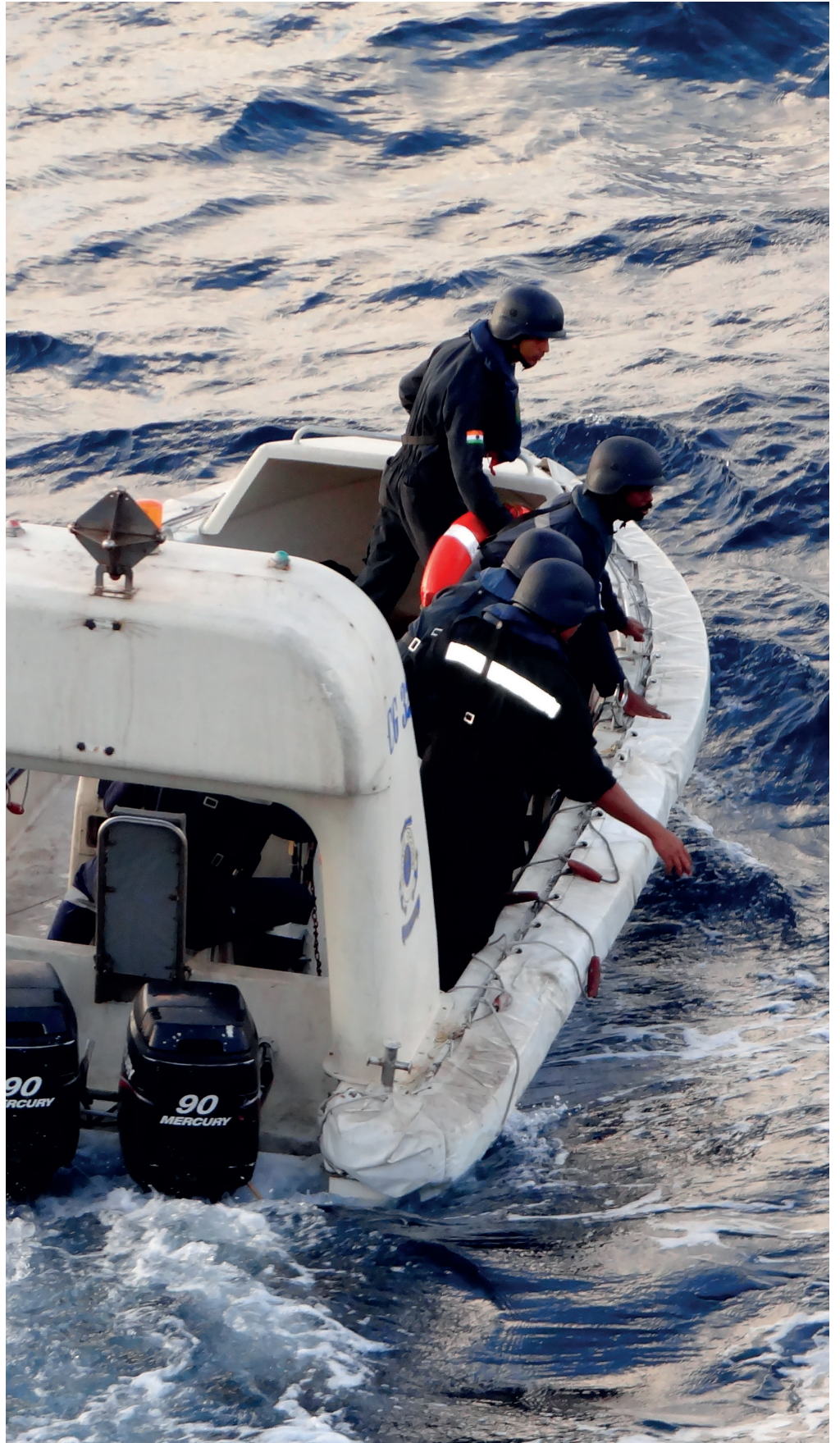
6 The White House, www.whitehouse.gov/wp-content/uploads/2021/01/IPS-Final-Declass.pdf, U.S. Strategic Framework for the Indo – Pacific, January 5, 2021.

India's basic approach to the Indo – Pacific Region (IPR) was first spelt out in a seminal address by Prime Minister Modi to the Shangri La Dialogue at Singapore in June 2018, when he clarified that the “Indo – Pacific is not a strategy or a club of limited members”⁷. Neither is it directed against any country. The important key aspects of India's Indo – Pacific approach are –

- (a) Inclusion
- (b) Openness and transparency
- (c) A common rules-based order for the region evolved through discussion and dialogue
- (d) Peace
- (e) Prosperity
- (f) ASEAN centrality
- (g) Freedom of navigation and unimpeded commerce
- (h) Peaceful settlement of disputes in accordance with international law
- (i) Respect for territorial integrity and sovereignty of all States

It is clear from this enunciation that India stands for a free, open and inclusive Indo-Pacific Region where all can participate in the pursuit of progress, development and prosperity. All countries in the region must follow this approach for it to work. There cannot be other members who do not see things in this light and are willing, able and happy to exclude others. It is a two-way street and all must play by these rules. South East Asia is obviously at the midpoint of the region and hence the centrality of ASEAN is key. The structures for cooperation, coordination and dialogue have already been constructed by ASEAN including the ASEAN Regional Forum (ARF) as well as the East Asia Summit (EAS) process of annual meetings. Once again, for India, peace combined with prosperity are the key goals for the region and this must apply to all countries individually as well as to the global commons. A very basic tenet is that all countries – big and small – have an equal stake in this process and must not merely have their say but must also partake of the fruits of development. There

⁷ Ministry of External Affairs, Prime Minister's Keynote Address at Shangri La Dialogue, 1 June 2018, www.mea.gov.in



is no place here for traditional balance of power politics, a sequential approach to growth or the concept of a hierarchy of nation states based on relative comprehensive national power. Realpolitik must give way to enlightened self-interest.

Flowing from these premises, is the natural corollary that the region must be based on a common rules-based order, which itself evolves through dialogue amongst all nation states of the region as well as those from outside, firmly guided by the concept of equality of states. One power flexing its military muscle in order to have its own way, must be forsaken. Peaceful settlement of disputes in accordance with international law is critical to this enterprise.

Enveloping these ideas and the vision from which it flows, India went a step further to enunciate SAGAR – Security and Growth for All in the Region – thereby fleshing out its philosophy, approach and actions in the IPR. India's policy measures whether with the ASEAN 10, or with the island states of Sri Lanka, the Maldives, Seychelles and Mauritius, or its activities with Japan, Australia and the United States as well as with France and Russia all aim at ensuring security and growth for all countries in the Indo – Pacific Region. In turn, such an approach flows seamlessly from India's vision of the 'World is One Family' or 'VasudhaivaKutumbakam'. If the world indeed is one family, only then, is the good of all the common objective and not the philosophy of 'to each his own' where individuals try to maximise their own gains. This, in turn, is a philosophy based on the brotherhood of humankind.

More recently, an Indo – Pacific Ocean's Initiative (IPOI) has been proposed by India as an open, non – treaty based global initiative with 7 pillars of –

- Maritime security
- Maritime ecology
- Maritime resources
- Capacity building and resource sharing
- Disaster risk reduction and management
- Science, technology and academic cooperation
- Trade, connectivity and maritime transport

Other nations are invited to participate in this cooperative and inclusive framework. Australia has chosen to lead on maritime ecology, Japan on connectivity while India herself has opted to lead on disaster risk reduction and maritime security.

The only lacuna in India's philosophy and approach to the IPR is that it assumes that all nation states within or involved with the region would be interested in a cooperative, all-ships-rise-with-the-same-tide policy. This approach to the IPR pre-supposes an enlightened and visionary mindset from all governments, which may not exist in reality. Given the nature and push of national power, such an approach has the potential to be undermined if one country or a group of countries acting together think they have sufficient strength to capture the large majority of the fruits of development cooperation and that in this way they can politically, economically and militarily dominate the IPR. If such a scenario were to materialize how would India and other nations in the IPR respond?

They would be forced to build balancing coalitions somewhat like the Quad (or Quadrilateral Security Initiative) comprising the United States, India, Australia and Japan and press for their vision of the IPR. Needless to say, India would also work closely with the ASEAN nations in order to ensure that the IPR continues to remain a cooperative framework and not degenerate into being the backyard of one or a group of states.

Therefore, in order to preclude this possibility or to protect against it, India will need to build strong partnerships with many, if not all, players in the IPR particularly ASEAN, Japan, Australia, the United States, Russia and France. These partnerships or even coalitions do not go against the grain of India's foreign policy orientation of strategic autonomy. It must be clearly understood that autonomy in decision making is a means to an end and not the end itself. The end is the protection and promotion of India's national interests. In other words, ensuring that India has the diplomatic space to pursue its own policies which aid India's rise as an important state in the comity of nations and achieve its own domestic goals of removing poverty, hunger and want are the objectives of India's foreign policy. If this has to be done by building strong and strategic partnerships with one or a group of countries there is no diminution in India's strategic autonomy.



Such balancing coalitions would not merely be security oriented but would also need to have a political as well as economic angle in order to provide them with the ballast necessary to push the Indian viewpoint of the IPR. Therefore, India would need to enhance its own economy at an annual rate of 7 to 7.5% GDP growth so that others could also partake of the fruits of such economic and social development. In turn, this would require robust trade, investment and technology transfer mechanisms with these coalition partners. Hence, for India, recovery from the Covid-induced economic recession is a starting point and we are focused laser-sharp on this front.

India has already built the foundations for strong economic ties with almost all nations in the IPR but it needs to implement what it has promised more quickly and efficiently than it has done so far. An example of this is the India – Myanmar – Thailand Trilateral Highway which has taken much longer than visualized at first. Even while such

developmental projects are not to be seen in a competitive framework, the fruits of economic projects need to materialize sooner rather than later, as common people are quite impatient to savor them and realize an improvement in their own living standards.

Clearly, there are many success stories of Indian projects in its neighbourhood such as the Salma Dam in Afghanistan, the Supreme Court building in Mauritius and the Jaffna Cultural Centre in Sri Lanka. They need to become the norm rather than exceptions.

Overall, the importance of the Indo – Pacific Region is immense for us in India and as our External Affairs Minister Dr. S. Jaishankar stated recently, even as “our footprint is increasing, our responsibilities are also growing”. At one level there are differing versions of the region – either free or authoritarian - at another level there is a need to harmonize the individual interests of states with their collective benefit “in ensuring that the global commons is better secured”⁸. Given India’s basic philosophy in international relations that the World is One Family, India will unswervingly pursue policies which result in the greatest benefit to all. As has been argued so ably by Minister Jaishankar such righteousness is an important aspect of the “India Way”⁹ of conducting foreign policy including in the Indo – Pacific Region.

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8 Ministry of External Affairs, Government of India, www.mea.gov.in EAM’s remarks at CII Partnership Summit, New Delhi, December 17, 2020.

9 S. Jaishankar, *The India Way: Strategies for an Uncertain World*, Harper Collins Publishers India, NOIDA India, 2020.

MARITIME MULTILATERALISM TAKES ROOT IN THE INDIAN OCEAN

Dr. Vijay Sakhuja

The Indo-Pacific region encompassing the Indian and Pacific Oceans has emerged as a vital theatre for competitive strategic great power dynamics. Its regional security environment is marked by both substantive and symbolic forward naval presence of expeditionary forces. The competitive infrastructure and connectivity buildup provides for access to dual-capable civilian and military facilities for trade, commerce and security. The extra-regional powers are leveraging their domains of influence and power, and forward deploying their militaries. These developments have not only ramped up geopolitics in the Indo-Pacific, but also accentuated the vital importance of the Indian Ocean itself.

Amid this geopolitical and geostrategic churn, the Indian Ocean littorals continue to acknowledge the critical necessity to develop regional cooperative mechanisms through enhanced bilateral and multilateral politico-military/diplomatic maritime dialogues to address threats and challenges and uphold order at sea. Such cooperation also includes both developing new capabilities for oneself as also building capacities for allies, friends and partners for cooperative stability both in the region and also outside.

In the above context, 'maritime multilateralism' provides a useful tool to build upon convergences and uphold a 'rules-based order' in the region. This paper identifies existing cooperative mechanisms in the Indian Ocean that address maritime security issues. It highlights the role of the Indian Ocean Rim Association (IORA) in promoting maritime multilateralism in the Indian Ocean. The paper also offers recommendations to enhance maritime security in the Indian Ocean Region (IOR).

There are at least three frameworks for maritime security and safety; first, is the classic 'competitive maritime security' which is centered on the State and involves cooperation among allies and coalition partners with common and shared political interests wherein the strategic actors

come together to sustain a favourable balance of power. This is evident in the apparent 'power shifts' between the United States and China which got accentuated in the ongoing COVID-19 crisis. The US surge into the Pacific supported by its alliance partners is a manifesting of the competitive security dynamics.

The second is 'cooperative maritime security' that involves a web of agreements among States who commit to ensure 'order at sea'. Their navies and maritime law enforcement agencies conduct operations with partners and friends to counter piracy, respond to terrorism at sea, prevent drug and gunrunning, and suppress human smuggling and illegal migration. The war on terror and piracy in the Gulf of Aden are good examples of cooperative maritime security for which like-minded States have come together to address common threats and challenges.

The third is 'convergent maritime safety' under which selective elements of cooperation are built-in to develop capacity which enable a State to deliver 'public goods' at sea. These include safety and security issues arising from nature-human induced catastrophes, disasters and emergencies such as tsunamis, cyclones, storm surges, climate change induced sea level rise, etc. and entail search and rescue (SAR) and humanitarian assistance and disaster relief (HADR) operations which are voluntarily undertaken by navies and coast guards. These could even be supported by merchant shipping.

Interestingly, the 2004 Indian Ocean Tsunami disaster, notwithstanding the destruction it caused to life, materials and livelihoods, was a trigger for 'disaster diplomacy'. It has now emerged as a tool of statecraft and foreign policy. States willingly take the lead to build diplomatic estate and join hands and offer assistance to affected people and countries. For instance, India's SAGAR (Security and Growth for All in the Region) is an important policy initiative and was recently operationalized to provide assistance to friendly foreign countries to overcome natural calamities and COVID-19 pandemic. In this context, Indian Navy's Mission Sagar-I (food aid and medicines to Maldives, Mauritius, Seychelles, Madagascar and Comoros), II (food aid to Sudan, South Sudan, Djibouti and Eritrea) and III (flood relief material to Cambodia) are noteworthy.

CONTEXT OF MARITIME MULTILATERALISM

The concept of 'maritime multilateralism' can be credited to Admiral Richard G. Colbert, US Navy who advocated multilateral naval cooperation through naval education.¹ He also established the Sea Power Symposium for foreign flag officers. Although Colbert's 'maritime multilateralism' did not resonate well during the Cold War, but, in the post-Cold War period, the concept has evolved itself as an essential element of naval strategy. The navies take pride in delivering HADR and SAR to countries impacted by natural disasters and calamities.

In this context, it is argued that 'maritime multilateralism' has emerged as a tool for nations, who consider using sea power for developing regional and international cooperation as being in their national interests.² Most maritime States consider 'maritime multilateralism' as a constituent element to policy and are investing in maritime power for use in cooperative agendas. There is therefore a growing level of cooperation among the navies and coast guards across the globe. They are not only collaborating to preserve order at sea, but developing joint operational plans for capacity building of smaller nations. Significantly, 'maritime multilateralism' is applicable to big, medium and small, traditional and nascent maritime powers.

In essence 'maritime multilateralism' enables States to address common security issues with a firm belief that all participants would gain better security by the actions of even a single member. States also believe that a secure maritime environment can be achieved by developing mutual understanding and cooperation among all in the region and ensuring order at sea.

MARITIME COOPERATIVE INITIATIVES IN THE INDIAN OCEAN

The Asia Pacific Region (APR) offers a good example of regional approaches to cooperative security arrangements. Soon after the Cold

1 Joel J. Sokolsky. "The Fraternity of the Blue Uniform: Admiral Richard G. Colbert, U.S. Navy and Allied Naval Cooperation", Naval War College, Historical Monograph Series, No. 8. http://archive.org/stream/fraternityofblue00soko/fraternityofblue00soko_djvu.txt (Accessed 10 January 2021).

2 Vijay Sakhuja. "IBSA Navies: Strengthening Maritime Multilateralism" <http://www.defstrat.com/exec/frmArticleDetails.aspx?DID=191> (Accessed 10 January 2021).

War ended, the Association of South East Asian Nations (ASEAN) took the lead and successfully weaved a web of interactions and engagements with partner countries. In the maritime domain, multilateral institutions and arrangements found favour among regional countries who began to actively participate in the associated activities, dialogues and discussions at the bilateral and multilateral levels. Some of the noteworthy arrangements are the ASEAN Regional forum (ARF), East Asia Summit (EAS), ADMM Plus and the ASEAN Maritime Forum (AMF).³

It is fair to state that Indian Ocean countries are latecomers in developing multilateral structures. This can be attributed to geographical constraints given that the Indian Ocean Region (IOR) is a large maritime space and its waters wash the shores of three continents and are spread out in several sub-regions. There was also lack of interest and therefore the 'political will' to develop Indian Ocean regionalism. Consequently, issues concerning maritime security, search and rescue and disaster management were rarely discussed or debated. Furthermore, the IOR littorals did not think in terms of providing security to smaller Indian Ocean states who were ill-equipped to protect their maritime interests. This resulted in the majority of these countries preferring to engage extra regional powers such as the US, Britain, France and some European countries to help harness the potential of the seas in a safe and secure manner.

Today, however, the Indian Ocean littorals and island States have chosen to consciously develop maritime capacities to harness the potential of the seas and capabilities to safeguard national maritime interests. They have also begun to 'invest in and form' regional institutions and arrangements to address common maritime security threats and challenges. Besides, they have displayed synergy and attempted to pursue cooperative approaches to respond to non-traditional security threats and challenges. They also acknowledge that security cooperation could be the panacea and the best opportunity for economic growth and development of the region. Some of the multilateral structures in the Indian Ocean region are discussed below:

³ "Chairman's Statement of the 10th East Asia Summit Foreign Ministers' Meeting 9 September 2020, Viet Nam", <https://asean.org/storage/2020/09/Final-Chairmans-Statement-of-the-10th-East-Asia-Summit-Foreign-Ministers-Meeting.pdf> (accessed 11 January 2021).

Since its inception as an inter-governmental organisation in March 1997, the Indian Ocean Rim Association (IORA) has fostered cooperation.⁴ In recent times it has spearheaded proactive initiatives to enhance maritime security and safety in the Indian Ocean. The role of IORA in fostering 'maritime multilateralism' is discussed in greater detail in subsequent paras.

Similarly, the Djibouti Code of Conduct (DCoC), signed on 29 January 2009, is a significant example of 'maritime multilateralism' for the Repression of Piracy and Armed Robbery against Ships in the Western Indian Ocean and the Gulf of Aden.⁵ Sub-regional groupings such as the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) and Indian Ocean Commission (IOC) too have set up cooperative agendas to address non-traditional security threats and challenges in the Indian Ocean.

At the operational-tactical level, the Indian Ocean Naval Symposium (IONS), is a voluntary programme to enhance cooperation among the regional navies.⁶ It has been in existence since 2007 and has grown to be a 36-member association that facilitates exchange of views among the naval professionals to evolve common understanding of maritime security issues in the region. The IONS is an important institutional dialogue initiative and can be credited with building naval confidence building measures among the Indian Ocean littorals to augment regional stability.

Indian Ocean States, individually or collectively, have also set up cooperative mechanisms for maritime security. For instance the "Milan" biennial meetings hosted by India are aimed at fostering closer cooperation among navies of countries in the extended neighbourhood of Southeast Asia and as far as Australia. Similarly, India, Maldives and Sri Lanka have established the Trilateral Cooperation on Maritime Security (TCMS) to address common maritime security threats and challenges and

4 "Indian Ocean Rim Association", <https://www.iora.int/en/about/about-iora> (accessed 11 January 2021).

5 For more details see <https://www.imo.org/en/OurWork/Security/Pages/Content-and-Evolution-of-the-Djibouti-Code-of-Conduct.aspx> (accessed 12 January 2021). India joined the Djibouti Code of Conduct/ Jeddah Amendment, as Observer, on 26 August 2020.

6 "Indian Ocean Naval Symposium" <http://www.ions.global/> (accessed 12 January 2021).



enhance security through cooperative measures and engage in Dosti series of exercises in the Arabian Sea.⁷ Similarly, the tripartite anti-piracy memorandum of understanding between South Africa, Mozambique and Tanzania of 2011 is noteworthy.⁸

Non-regional powers and players too have joined regional countries to respond to common threats and challenges. The Shared Awareness and Deconfliction (SHADE) and the Contact Group for Piracy off the Coast of Somalia (CGPCS) are important platforms that offer military commanders of various coalition groups and individual country force commander to share information on threats and share details with several stakeholders including the industry on the ongoing and planned counter piracy operations.⁹

MARITIME DOMAIN AWARENESS

Maritime Domain Awareness (MDA) is one of the many significant issues of contemporary security discourse. It has gained primacy in national policies and finds emphasis in maritime and naval strategy. MDA has also evolved into an effective tool of international relations and states have successfully integrated it into foreign policy at the bilateral and multilateral levels.¹⁰ A number of multilateral institutions and organisations have internalized MDA and the issue is frequently discussed during summits, ministerial and senior officials meetings.

The Information Fusion Centre- Indian Ocean Region (IFC-IOR) has been set up by India in 2018 to support the MDA needs of Indian Ocean littorals. It is the regional hub and presently interacts with 21 countries, 3 multinational organisations and expressions of interest have been sent to another 15 countries and the number of stakeholders could go up to 40. India has also signed White Shipping Agreement (WSA) under which navies of respective countries exchange information on the movement and identity of commercial merchant vessels through the Merchant

7 Vijay Sakhuja, "India, Sri Lanka & Maldives: A Maritime Troika Leads the Way", http://www.ipcs.org/comm_select.php?articleNo=4065(accessed 12 January 2021).

8 "Tanzania Signs up to South Africa-Mozambique Anti-Piracy Agreement", <https://www.futuredirections.org.au/publication/tanzania-signs-up-to-south-africa-mozambique-anti-piracy-agreement/> (accessed 12 January 2021).

9 "Piracy in Indian Ocean", <https://pib.gov.in/newsite/PrintRelease.aspx?relid=94883>(accessed 08 October 2020).

10 Vijay Sakhuja, "Domain Awareness: Maritime or Marine?", <http://www.kalingainternational.com/Vijay-Sakhuja24.html> (accessed 12 January 2021).

Ship Information System-Information Fusion Center (MSIS-IFC). The robustness of the IFC-IOR has been further reinforced by embedding International Liaison Officers who collate information from their areas of interest through their respective maritime security agencies which are then shared with partners. The IFC-IOR also publishes a Monthly Maritime Security Update (MMSU), a compilation of information on various illegal and criminal activities and accidents arising from natural events that threaten merchant vessels, shipping industry, and other maritime stakeholders in the wider IOR.

ROLE OF COAST GUARDS

The Coast Guards are vital for law enforcement and play a pivotal role in maintaining good order at sea and ensuring governance of the maritime domain. Also they are critical for augmenting maritime domain awareness (MDA). Besides, these forces are a value addition in regional maritime cooperation and work better for all countries that are deficient in maritime law enforcement. The Heads of Asian Coast Guard Agency Meeting (HACGAM), a grouping of 22 Member States and multilateral organizations¹¹ in the Asian region is a good example and a useful arrangement for “cooperative and proactive efforts to achieve desired organizational goals i.e. Search and Rescue, Environmental Protection, Preventing and Controlling Unlawful Acts at sea, and Capacity Building by which it facilitates addressing broader spectrum of maritime issues while strengthening and developing own capabilities”.¹²

There are several reasons to set up national Coast Guard. First, Coast Guard units, unlike warships are considered less offensive. They are normally painted white and are more benign in their outlook and the type of armament carried makes them less provocative. Second, the cost of construction of such platforms is less and do not require complex designs and are easy to build and in large numbers. Third, Coast Guard platforms such as the Offshore Patrol Vessel (OPV) types have high

11 Australia, Bahrain, Bangladesh, Cambodia, China, India, Indonesia, Japan, Republic of Korea, Malaysia, Maldives, Pakistan, Philippine, Singapore, Sri Lanka, Thailand, Turkey and Vietnam, its associate member, ReCAAP Information Sharing Centre (ISC) and three observer organizations - Bali Process, France and UNODC.

12 “15th Heads of Asian Coast Guard Agencies High Level Meeting begins in Colombo today”, <http://www.businessnews.lk/2019/10/09/15th-heads-of-asian-coast-guard-agencies-high-level-meeting-begins-in-colombo-today/> (accessed 15 December 2020).

endurance so that they can be deployed for long durations. These are normally provided with helicopters and deployment of UAVs can potentially expand their patrol and surveillance envelope. It has been argued that the “sole purpose of the navy is to prepare for war and the coast guard exists for the purpose of performing duties that are not connected with war but have direct implication for national security”.¹³

IORA AND MARITIME MULTILATERALISM

In 1997, the Indian Ocean countries established the Indian Ocean Rim –Association for Regional Cooperation (IOR-ARC), a regional grouping comprising of 20 countries across Asia, Africa and Australia, six dialogue partners and two observers. This pan-Indian Ocean organization addressed a number of issues relating to trade and investments, science and technology, education and training, etc. In 2014, IOR-ARC was rechristened as Indian Ocean Rim Association (IORA).

The IORA acknowledges that the Indian Ocean region “faces many traditional and non-traditional safety and security challenges including piracy, armed robberies at sea, terrorism, human trafficking, irregular movement of persons, drugs trafficking, illicit trafficking in wildlife, trafficking of weapons, crimes in the fisheries sector such as IUU fishing, degradation of ocean health, unlawful exploitation of marine resources and climate change with its related repercussions on environmental security”.¹⁴

In 2013, the IORA held its first ever Indian Ocean Dialogue (IOD), a stand-alone Track 1.5 discussion on maritime security and safety to enable open and free flowing debate by IORA Member States. This is now an important fixture in the IORA’s annual calendar and provides a platform for the Member States to debate-discuss maritime security and safety issues concerning the region.

Maritime Safety and Security (MSS) is also one of the important six pillars of the IORA. In 2017, the IORA Leaders’ Summit in Jakarta Indonesia, entitled “Strengthening Maritime Cooperation for a Peaceful, Stable

¹³ Prabhakaran Paleri, *Coast Guard In The Maritime Security Of India* (New Delhi: Knowledge World, 2004), pp.48-49.

¹⁴ “Maritime Safety and Security”, <https://www.iora.int/en/priorities-focus-areas/maritime-safety-and-security> (accessed 08 October 2020).

and Prosperous Indian Ocean” acknowledged the importance of strengthening regional cooperation in the Indian Ocean region, and in 2018, the IORA set up a Working Group on MSS (WGMSS) which is currently developing a regional agenda through a ‘MSS Work Plan’

OTHER VISTAS FOR MARITIME SECURITY AND SAFETY

One of the important features of the emerging trends in maritime security is the globalization of security responsibilities and duties. Till very recently, the security of the maritime domain was the responsibility of the State and its arms such as the navies, coast guards and other marine law enforcement forces. These agencies were tasked to undertake operations to provide maritime security. However, the growth of Private Maritime Security Companies (PMSC), which emerged as a response to the rising graph of piracy in the Gulf of Aden, is a new phenomenon at sea. The PMSC personnel carry weapons and ammunition and offer shipping companies attractive options to counter piracy particularly off Somalia. According to market data, in 2019, the global maritime security market was valued at US\$ 19.87 billion and is expected to increase to US\$ 29.91 billion by 2025, which corresponds to a CAGR of 8.51% during the forecast period.¹⁵

At another level, the industry, businesses and corporates have also taken upon themselves to contribute to global efforts to enhance maritime security. There are several examples of such initiatives by the industry such as the (a) Langkawi International Maritime and Aerospace Exhibition (LIMA), Malaysia; and (b) International Maritime Security Exhibition (IMDEX) Asia, Singapore, etc., and involve exhibitions, conferences and warship displays to attract stakeholders such as the military, government, industry and academia. These are occasions to familiarise and update on the current and future maritime security technologies. The events are labelled as ‘must-attend’ and are part of the global naval and maritime security calendar. Other dialogues, the Shangri-La Dialogue, Manama Dialogue and the Galle Dialogue, also contribute to the maritime security discourse.

¹⁵ “Maritime Security Market - Growth, Trends and Forecasts (2020 - 2025)”, <https://www.mordorintelligence.com/industry-reports/maritime-security-market> (accessed 08 October 2020).

RECOMMENDATIONS

- (a) A pan-Indian Ocean maritime security and safety architecture could be developed which includes enhanced dialogue, action plans, information sharing mechanisms and processes.
- (b) The IORA and IONS are good models of maritime multilateralism; however there is no established dialogue mechanism between the two organizations. This is despite the fact that the Somali piracy in the Gulf of Aden had offered a unique opportunity to the IORA and IONS to engage in dialogue over security issues in the Indian Ocean.
- (c) An Indian Ocean Coast Guard Conclave (IOCGC) similar to the Heads of Asian Coast Guard Agency Meeting (HACGAM) and on similar lines as the Indian Ocean Naval Symposium (IONS) can be constituted to deliberate and share best practices among regional coast guards and marine law enforcement agencies.
- (d) Maritime security is a cross cutting issue involving multiple stakeholders and therefore it is important to adopt integrated approaches involving the maritime industry and other stakeholders.
- (e) A study of maritime security dialogue frameworks and mechanisms of other regional groupings should be undertaken to identify the best practices that can be integrated into the Indian Ocean security architecture.
- (f) It needs to be recognized that Western Indian Ocean and the Arabian Sea littoral is even more deficient in subregional cooperative mechanisms as compared to the Eastern Indian Ocean and the Bay of Bengal littoral and will therefore require even greater effort of existing mechanisms such as IONS and IORA.
- (g) To summarize, the existing maritime cooperative initiatives in the IOR are playing an important role and are successful models of cooperation. Common security concerns are being addressed through the prism of 'maritime multilateralism' which is a new paradigm of foreign policy and security strategy.

ABOUT THE AUTHOR

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“POLITICS OF PEACE AND DEVELOPMENT IN IOR: VIEWS THROUGH SDG LENSES” CENTER FOR PEACE STUDIES, SIPG, NORTH SOUTH UNIVERSITY

By Ambassador Md. Shahidul Haque

Let me pay my deepest respect and tribute to our Father of the Nation Bangabandhu, Sheikh Mujibur Rahman, as we shortly step forward to observe the “Mujib Borsho”. Bangabandhu’s vision of Shonar Bangla is intrinsically linked to the evolution of the personality of Bangladesh – as a secular, pluralist, peace-loving, and responsible Bangladesh.

CONCEPT OF PEACE AND DEVELOPMENT

Any deliberation on peace, sadly, cannot start without discussing war or conflict. In fact, the history of humankind has been a history of war and conflict. The 21st century history is unlikely to be a different one. That is why, perhaps back in 1949 Albert Einstein said,

“I know not with what weapons World War III will be fought, But World War IV will be fought with sticks and stones.”¹

The reflections of Einstein on war and peace continue to remain relevant even today. Over the centuries, humankind has unfortunately gained enormous capacity to destroy itself. This year, Davos introduced a new session titled, “How to survive in the 21st century”. With the largest-ever presence of world leaders, Davos’s “survival dialogue” was overwhelmed with identifying risks of Climate Change, technological disruptions, inequality and the geopolitical game. Davos’s dialogue concluded stating that humankind today live in an unsettling time risking long-term peace, stability and survival.

Let us briefly look at fundamental concepts of peace and development. Indeed both are complex and multilayered phenomena. Over time, the

¹ Albert Einstein, in an interview with Alfred Werner, Liberal Judaism 16 (April-May 1949), Einstein Archive 30-1104, as sourced in The New Quotable Einstein by Alice Calaprice (2005), p. 173

idea and manifestation of war have inflicted havoc on many societies, assuming titles such as “hot war” and “cold war”. But simultaneously, it has opened enormous opportunities to design newer architecture for peace, the economy and progress of humanity.

Put simply, peace is the presence of friendship and harmony and/or the absence of hostility, conflict and violence. Johan Galtung articulated peace as the ‘absence of violence’². He categorized violence as two types – personal and structural. Later, he added a third category called cultural violence. Others have defined peace in terms of cooperation, social constructs and social order. In recent times, the Global Peace Index (GPI) has introduced new indices to monitor trends of global peacefulness. In 2019 the GPI report analyzed trends of positive peace i.e., the attitudes, institutions and structures that create and sustain peaceful societies as opposed to negative peace.

As I have said earlier, by nature humankind has the capacity and tendency to commit violence against other humans with significant losses. During World War II, an estimated 60 million people were killed³. The 2019 GPI report further revealed that the economic impact of violence alone on the global economy in 2018 was worth US\$ 14.1 trillion, in purchasing power parity terms. That was equivalent to 11.2% of global GDP or US\$ 1,853 per person. Indeed, a huge loss for our society and economy.

On the other hand, the origin of the concept of development remains ambiguous and disputed. Perhaps its roots lie in the European Enlightenment of the 18th century. The contemporary idea of development is a post-second world war construct. In the 1980s, Professor Mahbub UI Haque⁴ challenged the conventional notion of development by replacing it with the idea of human development⁵. That was further enlarged by Nobel Laureate Amartya Sen through his ‘entitlement approach’ or, as the “people’s choice”. He claimed that development is not so much something that can be done to others, but

2 Galtung, Johan, 1969, Violence, Peace and Peace Research, Journal of Peace Research 6(3), 167-191

3 Done, Adrian, Global Trends: Facing up to a changing World, LSE Business Collection 2012

4 Poverty Curtain, Mahbul UI Haque (Oxford University Press, Delhi, 1980)

5 In 1990, first HRD of UNDP introduced the concept of human development

is instead something that people do for themselves⁶. In his seminal book “Development as Freedom” (1999), Professor Sen views freedom as both the means and the ends of development. Taking the idea further, the World Commission on Sustainable Development, popularly known as Brundtland Commission, (1987) in its report titled “Our Common Future” (2002), attempted to articulate the concept of sustainable development as that which meets the needs of the present without compromising the ability of future generations to meet their own needs. This new idea was then put into practice across development fields, initially the UN system and civil society.

In the Fall of 2015, following three years of consultations and protracted negotiations, global leaders adopted the “2030 Agenda for Sustainable Development Goals” that included 17 Sustainable Development Goals. This ambitious and aspirational Agenda is aimed to bring transformational changes in development thinking and practices, particularly in the context of peace and security.

Agenda 2030, unanimously adopted by all UN members States, accepted that “sustainable development cannot be realized without peace and security; and peace and security will be at risk without sustainable development”⁷. Within this entire context and scheme, the inclusion of Goal 16 was a major breakthrough from the classical notion of development. It not only conceptualized a new notion of development, but it also operationalized the key elements of peace – social justice – rule of law at all levels. Frankly, Goal 16 stood out as the most striking feature of the new scheme compared to previous global development frameworks. It bridged, for the first time, the gap between peace, security, human rights and development within a global Agenda. It has indeed defined a nexus among these ideas with its preamble stating “...a plan of action for people, planet and prosperity....to strengthen universal peace in larger freedom.”

SDG 16 envisages to build a peaceful, just and inclusive society based on effective rule of law and governance. Agenda 2030 is, in fact, directly

6 Barnette, John, ‘Peace and Development: Towards a New Synthesis’ Vol 5, no.1, 2008, pp 75-89. Institutional Peace Research Institute, Oslo

7 UN, Transforming our World: The Agenda 2030 for Sustainable Development (A/RES/70/1), 2015

linked Galtung's idea of negative peace (as absence of conflict) and positive peace (as preventing or ending violence including cultural⁸) as a prerequisite for a prosperous and peaceful global society.

PEACE AND AGENDA 2030

The policy of sustaining a broader peace and wider development should be seen in the context of local and global politics. We know that neither peace nor development functions in a vacuum. Both peace and development evolve within the context of national politics and/or international geopolitics. In that context, politics is often understood as our collective decision to take actions for the wellbeing of our society and economy. Though some have defined politics as a process of maneuvering to assert rival interests⁹, we perceive in this paper politics being associated with governance to achieve larger freedom for all.

The whole nexus mechanism between peace and development is again dynamic especially in the contemporary unsettling times. Lately, both have also been forced to undergo unprecedented transformations. The artificial intelligence-led industrialization termed as “fourth industrial revolution”, coupled with hyper-connected societies and individuals, human security challenges and an impending climate crisis cause us to rethink the nexus between peace and development. Undoubtedly, the nexus has also opened up new frontiers of opportunities to innovate new ways and means for survival.

PEACE AND DEVELOPMENT IN BANGLADESH

The people of Bangladesh have long aspired to create a stable, secure and peaceful Bangladesh. The conviction for peace is derived from the Proclamation of Independence of Bangladesh in 1971 which states, “Commitment of the State to the Charter of the United Nations” and that ...”we may make our full contribution to international peace and cooperation in keeping with progressive aspirations of mankind.” It also laid down the fundamentals of our foreign policy - where Bangladesh stands to protect and advance global peace, human rights, pluralism and

8 Mclaughin, Mathew, “The link between peace and sustainable development. September 26, 2017 (downloaded on 5th February 2020)

9 Thompson, W. (2001). Identifying Rivals and Rivalries in World Politics. *International Studies Quarterly*, 45(4), 557-586. Retrieved February 26, 2020, from www.jstor.org/stable/3096060

social justice. The Bangalees have not hesitated to shoulder burden and responsibilities, in guarding global peace and creating common goods. Our commitment and participation to UN peacekeeping operations emanate from that spirit and value.

The second source of our commitment toward peace and development is Article 25(1)¹⁰ of the Bangladesh Constitution that states “the State shall conduct its international relations based on the principles of peaceful settlement of international disputes, respect for international law and the UN Charter, and strive for social and economic emancipation of peoples.” It also suggests that, as a State, Bangladesh never intends to wage a war or go into a war; and pursues a ‘peace and non-alignment centric’ balanced and pragmatic foreign policy in building relations with other countries.

Inspired by 1971 values, in 1999, Bangladesh mooted the Resolution on the International Decade for a Culture of Peace in the UN General Assembly, which recognized that “...peace not only is the absence of conflict, but also requires a positive, dynamic participatory process where dialogue is encouraged and conflicts are solved in a spirit of mutual understanding and cooperation.”¹¹

Similarly, in March 2001, under the Prime Minister Sheikh Hasina’s Chairmanship of the UN Security Council, Bangladesh conceptualized and steered adoption of the historic Resolution 1325 on Women, Peace and Security¹².

The reflections of our aspirations to attain peace inter alia have been adequately integrated in Bangladesh’s foreign policy exercises. Under the visionary leadership of Prime Minister Sheikh Hasina, Bangladesh is now pursuing a values-oriented, aspirational foreign policy that aims at:

“...establishing Bangladesh as a regional and global responsive and responsible Middle-Income Country with a democratic, secular and inclusive identity, contributing to global peace, progress and prosperity.”¹³

10 Article 25(1) of the Constitution casts an obligation upon the State to have respect for International law and the principles enunciated in the United Nations Charter and the WHO resolution, Constitution of Bangladesh, 1972

11 To promote a culture of peace [General Assembly Resolutions A and B 53/243, of 13 September of 1999, the General Assembly]

12 The Security Council adopted resolution (S/RES/1325) on women and peace and security on 31 October 2000.

13 Statement by Ministry of Foreign Affairs

Despite recognizing early on the value of development and peace, states continue to be confronted by some fundamental questions:-

How can we have a narrative and an innovative scheme balancing our geo-political and geo-strategic interests while pursuing peace and development?

How we can pragmatically balance our national interest with that of international obligation in sustaining global peace and development?

To address these questions, let us try to look at some interrelated sets of factors and forces that often work towards achieving development, rights, peace and governance. I would like to share four such sets of factors with you:-

First: Sustainable peace is primarily determined by equality, governance and human rights. António Guterres¹⁴ UNSG's in his remarks at the opening of the Human Rights Council on 24th February, 2020, states "Every measure to uphold human rights helps ease tensions, deliver sustainable development and sustain peace". Agenda 2030 has identified 5 priority focuses: people — planet — prosperity — peace — partnership. The SDG Target 10.3 further commits to "ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action."

In this context, I would recall what Father of the Nation Bangabandhu Sheikh Mujibur Rahman stated in his maiden statement at the UNGA in September 1972, said while positioning the new nation state of Bangladesh in the global theater:

"The Bangalee people have fought over centuries so that they may secure for themselves the right to live in freedom and with dignity as free citizens of a free country....Bangalee nation fully --- to building a world order, which the aspiration of all men for peace and justice will be realized."

It is out of that belief that Bangladesh has continued to host a large number of forcibly displaced Rohingyas from Myanmar for over 3 decades, now reaching 1.1 million.

¹⁴ António Guterres, UNSG at the opening of Human Rights Council on 24th February, 2020

Second: while working for sustaining peace, we need to focus at the interface between peace - connectivity - and human mobility. It is globally recognized that migration is an integral component of sustainable development. It is one of the oldest tools to ensure human security. On the other hand, the absence of peace and stability hinder realization of human connectivity, resulting in unwarranted manifestations of forced mobility, chaos and obstruction of wider opportunities. In 2018, the UN by adapting two Compacts, one for Refugees and other one for Migrants, has acknowledged that human mobility, if not governed properly, could seriously jeopardize global peace, stability and development. On the other hand, mobility of people across borders with safety and dignity, adds value to societies and economies, as well as creates wealth and other common goods.

Third: Our oceans and seas are key to the 'global common'. Despite the fact that 'Oceanic services'¹⁵ are a key 'public good', we often ignore its potential to create wealth and wellbeing. Our oceanic space is economically-critical and strategically-significant to us. Yet, we are often constrained by 'ultra-sovereignty' considerations in undertaking collaborative ventures. We need to remind ourselves that the ocean is not only for warfare, geopolitics or competitive crowding-out, it is also a reservoir of wealth waiting to be optimized for the greater well-being of human society and economy.

This understanding led Bangladesh to peacefully resolve maritime boundary issues with India and Myanmar. Thus, we unlocked ways to explore enormous economic opportunities in the Bay of Bengal while upholding peace with our neighbors. In projecting our aspirations in unison with all nations of the Indian Ocean region and beyond, Bangladesh Prime Minister Sheikh Hasina called for regional unity and re-focusing on the Blue Economy at the IORA Leaders' Summit in Jakarta in 2017.

The UNCLOS originally aimed at establishing a legal order to promote the peaceful use of the seas and oceans, equitable and efficient use of their resources, conservation of their living resources and to protect and preserve the marine environment. This has been duly incorporated

¹⁵ Marine ecosystem services.

in Agenda 2030 (SDG 14). Now it is widely felt, UNCLOS needs a new supplementary instrument to ensure peace in the high seas. In that context, UN member states have recently begun negotiations to elaborate a legally-binding instrument dedicated to the conservation and sustainable use of marine biological diversity beyond national jurisdiction. This is indeed an area of interest for Bangladesh.

Fourth: SDGs must be seen in synergistic ways – not in ‘silos’. The realization of peace demands that we link ‘equality’ with rights and with ‘governance’ while implementing them. No State can afford to attempt to achieve SDG 16 without ensuring the rights of all, rule of law and justice. We need to explore linkages between reducing inequality with Peace, Justice, and effective institutions. This can be achieved, among others, by pursuing results-oriented ‘partnerships’ without any inhibition or, taboo, or perceptions.

In an effort to draw synergies between and among the SDGs, in December 2018, at the annual diplomatic consultation between the European Union and Bangladesh in Brussels, Bangladesh proposed a “partnership on global governance for sustainable development”. It was a new idea linking Goal 10 (Reduce inequality), Goal 16 (Peace, Justice and Strong institutions) within the broader Goal 17 (Partnership for the goals)¹⁶. Subsequently, the EU requested UNDP to develop a regional project for South and South East Asia¹⁷ linking the 3 goals of the SDGs. Such initiatives, if implemented, could lead to innovative good practices in realizing peace, progress and sustainable development.

So far, we looked at certain important elements and their complementarities in sustaining peace and development. Flagging of some of the principles for engagements between and among countries as well as various stakeholders in achieving peace and development should also be in order:-

First: Upholding peace, freedom and development, as the highest global values of humankind.

¹⁶ MoFA, Non-paper (restricted), submitted by Bangladesh to EU Commission, Brussels, December 2018,

¹⁷ Jahan, Selim, “Sustainable Development Goals. The nexus between inequalities, peaceful and inclusive societies at global partnership. A draft report. UNDP, New York, July 2019

Second: Persuading principle of fairness, equity and justice in our relations and engagements.

Third: Recognizing capacity constraints and limitations, and efforts to address these.

Fourth: Upholding mutual respect and trust towards others' views, values, contributions and traditions.

Fifth: Recognizing and complying with national laws, regulations, decision-making procedures, so as to create a mutually comfortable atmosphere of peace and harmony.

Sixth: Pursuing open, transparent and inclusive inter-state cooperation based on mutual benefit for all.

While discussing interstate relations and cooperation for peace and development, I recall what our Father of the Nation, Bangabandhu Sheikh Mujibur Rahman, said in Kolkata in 1972, while attending a banquet hosted in his honor by the Indian Prime Minister. He said:

Let there be an end, once for all, to the sterile policy of confrontation between neighbors. Let us not fritter away our national resources but use them to lift the standard of living of our people. As for us, we will be wanting to cooperate with all for creating an area of peace in South Asia where we could live side by side as good neighbors and pursue constructive policies for the benefit of our peoples..."

One may indeed note that, just walking out of the Pakistani Jail, Bangabandhu made this visionary statement in 1972 in a bold attempt to chart a new path for Bangladesh towards achieving peace and development. Five decades since, his vision continues to remind us of the significance of peace, justice and an exploitation-free world.

CONCLUSION

In the contemporary “post-human rights” world, undoubtedly, we have a long and difficult journey ahead to achieve a peaceful world. We also need a different mindset and innovative tools to bring about a difference in the life and livelihood of people. Perhaps that is why Alexis de Tocqueville, a long time back, called for a new political science for a new world then. It is time for us to design an innovative hybrid discipline for achieving peace, human security and development in a volatile and increasingly dangerous world. In the IOR, the SDG can be the backbone, where all nations have consensus, and can cooperate to pursue these through a collaborative mechanism that is beneficial to all.

I would like to end my paper on Peace by quoting Francis Bacon¹⁸ (1625). He said,

“Peace is better than war, because in peace the sons (children) bury their fathers (parents) but in war the fathers (parents) bury their sons (children)”

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¹⁸ FRANCIS BACON, *Apophthegms, New and Old* (vol. 13 of *The Works of Francis Bacon*), ed. James A. Spedding, Robert L. Ellis and Douglas D. Heath, no. 149, p. 359

COOPERATIVE AIRPOWER ENGAGEMENT AMONGST IOR COUNTRIES

By Air Marshal Diptendu Choudhury, AVSM, VM, VSM

The last year of the second decade of the twenty first century was tumultuous indeed. A microscopic virus triggered the worst humanitarian crisis since the Second World War, and with it exacerbated the geopolitical transformation the world is undergoing. In these testing times, India's economy dependant growth imperative is underscored by its stated 'policy priority' towards the Indian Ocean Region (IOR) with the strategy of 'Security and Growth for All in the Region'(SAGAR)¹. The recent belligerence of the Dragon, in the current environment of economic discontentment and tenuous international situation, has put India's foreign policy in the spotlight. According to Chinoy – "For India, the disruption caused by China's forays into the Indian Ocean and the South Asia and aggressive actions on its borders will remain its priority"². With over ninety per cent of India's trade flowing through the IOR, it is the wellspring of the nation's growth trajectory towards a five-million-dollar economy, and its great power aspiration in a multi-polar world. In this strategic milieu, the much understated and underestimated Indian airpower will play an increasingly significant role, in the years ahead.

SALIENCE OF ASIAN WATERS

It was only after the collapse of the USSR in 1991, and the consequent securing of its land borders, that China turned its attention to its long coastline. Chinese ports became the hubs of its booming trade and commerce. The need to sustain the economic growth entailed an uninterrupted and ever-growing energy flow through the seas, which propelled China to become an aggressive maritime player in the Asian waters. Economics aside, along its eastern coastline also lie its vulnerable pressure points.³ Its unjustified and coercive foreign policy in the South

1 <http://www.narendramodi.in/pm-modi-at-the-international-fleet-review-2016-in-visakhapatnam-andhra-pradesh-413019>

2 SujanR.Chinoy, India and the Changing Dynamics of the Indo-Pacific, Asia Policy, Vol 15, Number 4, Oct 2020

3 Diptendu Choudhury (2020): Expanding Role of PLAAF in China's National Security Strategy, Strategic Analysis, DOI: 10.1080/09700161.2020.1841100

China Sea (SCS) underpinned by its Malacca Dilemma, has all the regional players deeply concerned. From India's security perspective, since the Malacca Strait also links the IOR to the SCS, the key strategic assessment which emerges is that –“IOR and the SCS are the conjoined twins of Asian waters, and their interdependence is an imperative in any future strategic calculus in the region”.⁴In his book 'Monsoon', Robert Kaplan presciently argues that the world must awaken and reorient themselves to the importance of the regions that span the Indian Ocean. In essence, a game of entente and détente awaits us as the inexorable logic of global commerce melds with military might in the Indian Ocean.⁵

While the wider multi-lateral Indo-Pacific construct by Japan, the USA, Australia and India has gained prominence as the Quad, the IOR remains India's core interest. PM Modi in his Shangri La Dialogue articulated - “The Indian Ocean has shaped much of India's history. It now holds the key to our future”. He also spoke about a comprehensive agenda for regional cooperation in amongst the Indian Ocean Rim Association (IORA), strategic partnership with ASEAN and that - “India's growing engagement is accompanied by deeper economic and defence cooperation”.In the wider context of the Indo-Pacific he committed to – “promote a democratic and rules-based international order, in which all nations, small and large, thrive as equal and sovereign. We will work with others to keep our seas, space and airways free and open”. Regarding the Indo-Pacific region he also said - “We should all have equal access as a right under international law to the use of common spaces on sea and in the air”⁶ It was the first time that air and space were mentioned by an Indian PM in a strategic regional geo-political context. While the maritime strategy has understandably been the focus, an 'air strategy' has a vast unexploited potential as well. To exploit this, Indian airpower capabilities need to be examined.

4 Air Mshl D Choudhury, Saliency of Airpower in Asian Waters, Naval War College Journal

5 <https://gulfnnews.com/entertainment/books/book-review-robert-kaplans-monsoon-1.709298>

6 https://mea.gov.in/Speeches-Statements.htm?dtl/29943/Prime_Ministers_Keynote_Address_at_Shangri_La_Dialogue_June_01_2018

STRATEGIC TRANSFORMATION OF INDIAN AIRPOWER

Indian airpower has undergone transformational changes over the last decade. The mis-perception of its 'escalatory nature' has been finally put to rest as its extensive escalation-controlled employment in the Kargil conflict amply proved. It is truly the first responder which acts with speed, agility, reach and response, within minutes in Air Defence and within hours in all other kinds of contingencies, well inside the decision cycle of the adversary. It provides the vital asymmetric advantage as an instrument of national policy, with its ability to prosecute a vast variety of kinetic and non-kinetic hard and soft power roles. Its inherent strategic agility and flexibility enables execution of tasks and missions across the entire spectrum of conflict, whether deep into enemy territory or across large continental and maritime spaces. While the IAF has long transformed into a strategic airpower, it has not been adequately recognised as so.

Strategic effect, strategic capability and strategic capacity, are the key determinants of a strategic air power. The capability to produce strategic effects or 'outcomes of strategic consequence' has been historically displayed by the IAF from the legendary airlift on 27 Sep 1947 that saved Kashmir, where it flew in a battalion of I Sikh into Srinagar, with a mere handful of Dakota aircraft. More recently, on 26 Feb 2020, when Indian fighter aircraft entered the Pakistani airspace to carry out an airstrike on the Jaish-E-Muhammad training camp, the IAF crossed the Rubicon of new age strategic airpower. For the first time the Indian border was crossed in peace time by its fighters for carrying out a kinetic air strike, not for a military objective but a political one. Offensive airpower was used by the nation in the sub-conventional context, for striking a non-military non-civilian target, sending a firm political message that any unacceptable act of terror on Indian soil would invite swift lethal retribution.

The IAF first displayed its strategic capability with the airlift of 1600 troops in IL76 aircraft with fighter escorts, flying nonstop over 2000 km within just nine hours of the request for help, to avert a coup in Maldives in 1988. The same ability has been reiterated by its regular participation in

transcontinental exercises as far as Alaska (Exercise Cope Thunder 2005, Red Flag Alaska 2015 & 2020), mainland USA in Nellis, Nevada (Red Flag 2007), and the large number of similar deployments to UK, France, the Gulf etc. Accurate live strikes in the Track Islands⁷ in Andaman, and the long-range strikes to the Malacca Straits over a distance of 4000Kms in Ex Gagan Shakti⁸ are classic strategic airpower capabilities.

The strategic soft power capabilities of the IAF has been long utilising its mobility, agility, reach and swift response in Humanitarian and Disaster Response (HADR) for almost two decades - OP Sea Wave, Rainbow and Castor during the Tsunami of December 2004; Airlift of relief material for Hurricane Katrina, USA, September 2005 and for Typhoon Haiyan to Philippines, November 2013; Joint IAF-Indian Navy (IN) OP Neer for transporting potable water to the Maldives, in September 2014; Joint IAF-IN OP Rahat for air and sea evacuation of Indians stranded amidst conflict in Yemen, April 2015; OP Maitri for airlift of critical aid to Nepal after the earthquake in April 2015; OP Sankat Mochan for air evacuation of Indian nationals stranded amidst conflict in South Sudan in July 2016. And, in the recent Covid 19 crisis, the IAF C-17 and C-130 aircraft were used extensively to supply medical and personal protection equipment to many countries internationally, and in bringing back Indian citizens stranded in various parts of the world.

Strategic capacity is 'how much can be done' from a strategic perspective. It inevitably leads to the debate- does the IAF have the capacity of a strategic AF? From a hard-core practitioner's perspective, the current combat inventory of 30 fighter squadrons against the sanctioned strength of 42 squadrons,⁹ is inadequate for a full scale conventional two front collusive war. However, despite the reduced numbers, a close analysis of the current inventory reveals significant airpower capability and employment options. Modern fourth generation versatile platforms like the SU 30, the indigenous Tejas, upgraded MiG 29 and Mirage 2000, and the latest Rafale fighters, all capable of air- air refuelling, along with force enablers comprising of AWACS and AEW&C aircraft and aerial refuellers, have vastly improved the IAF's strategic hard power

7 <https://economictimes.indiatimes.com/news/defence/iaf-successfully-test-fires-brahmos-surface-to-surface-missile-from-mobile-platform/articleshow/71710723.cms?from=mdr>

8 <http://www.chanakya-aerospace-defence.com/topstories/details.aspx?sid=101>

9 <https://www.thehindu.com/news/national/the-hindu-explains-how-is-india-building-up-the-squadron-strength-of-its-air-force/article32053910.ece>

capability. The induction of the C17 and the C130 have greatly enhanced our strategic airlift and mobility. Even with the lowest combat bench strength ever, the IAF capability and capacity today is a cause of serious concern for adversarial militaries, and not just their AFs. It is time that Indian air power capability is no longer underestimated and hyphenated to a limited tactical role of supporting the surface forces in a war fighting construct. Today, while it possesses adequate hard and soft power capabilities to create strategic effects in our areas of national interest, the caveat however is the necessity to expand its strategic capacity. This is an ongoing process in the absence of defined goal posts of 'how much' constitutes an 'adequate' strategic capacity. Meanwhile, it is opportune to exploit the present strategic capabilities for national security and interests. Capacity will follow.

REGIONAL COOPERATIVE AIRPOWER ENGAGEMENT

With its persistent and aggressive actions in the recent years, the People's Liberation Army Air Force (PLAAF) has emerged as an instrument of political signalling, coercion and harassment, while simultaneously expanding its operational capabilities. The maritime and aerial actions by the People's Republic of China (PRC) in the region, have consistently shown little respect for international norms and a rules-based order, with the aggressive and coercive execution of its foreign policy. Having analysed the airpower effects during the Gulf War,¹⁰ the PRC invested heavily on remodelling and strengthening the PLAAF. Without the opportunity to expose and test it in war or any live combat situations, the PLAAF has focussed on exploiting it in the wider political and security context of deterrence, coercion and strategic signalling. The ADIZ declaration in the ECS, long range offensive missions in both ECS and SCS, implementation of Anti-Area-Access-Denial (A2AD) strategy, and creation of airfields capable of undertaking fighter operations in three artificial islands in the SCS, are some examples of a strategic exploitation of the PLAAF. Consequently, it has joined the PLAN as an equal instrument of coercion in the East and South China Seas.¹¹ Ding Laihang, the current PLAAF Chief, believes that a strategic force must go out and declare that

10 Qiao Liang and Wang Xiangsui, *Unrestricted Warfare*, Beijing: PLA Literature and Arts 775 Publishing House, February 1999

11 *Ibid*: *Expanding Role of PLAAF in China's National Security Strategy*, Strategic Analysis, p.14

the PLAAF will continue training over the seas. Arguing in favour of its offensive strategic projection, he stated on the China National Radio: “In the past, our strategies and guidelines focused on territorial air defence. Now we have been shifting our attention to honing our ability in terms of long-range strategic projection and long-range strike”.¹²

Amongst South East Asian countries, Indonesia, Malaysia, Philippines and Vietnam have small Air Forces, with a mix of varying vintage and limited modern combat assets. Only Singapore and Taiwan, have modern AF inventories. Simply put, none of these nations can match up to the PLAAF individually. Yet, all of them are running programmes to modernise their AFs having realised that possibly the only credible conventional deterrence and asymmetric kinetic hard power capability against China, is a strong airpower with a modern inventory. Together however, these AFs can most certainly enable an asymmetric exploitation of airpower for their nations to exercise sovereignty over the contested waters in the region. This is where the IAF being the only regional AF of consequence, can play a significant role in enabling their defensive and deterrent power, ranging from conducting training and exercises to potential joint tasks and missions with them. Regular operations with friendly AFs can provide access to their bases for turn-around facilities. Unlike the erstwhile US strategy,¹³ and lately of China,¹⁴ India does not need to create ‘bases’ but just needs access to ‘places’ in the friendly regional countries.¹⁵ With its vast experience in long range international deployments, IAF’s professional goodwill and strategic reach should be exploited in the national interests. A display of ‘intent and capability’, provides the option of cooperative leveraging of airpower in the, in cooperation with the regional AFs, as a countervailing strategy to Chinese domination of the Asian waters.

Typically, all maritime strategic thought, with a carrier-centric airpower mindset, tends to ignore the significant capabilities that land-based air power brings to the table. The non-involvement of land-based airpower in the Malabar exercises underscores this. Without underestimating the

12 http://usa.chinadaily.com.cn/china/2017-09/05/content_31577141.htm

13 Michael W. Pietrucha, Making Places, Not Bases a Reality, USNI 28 March 2016.

14 Daniel J. Kosteca, Places and Bases, The Chinese Navy’s Emerging Support Network in the Indian Ocean.

15 Ibid, Salience of Airpower in Asian Waters, Naval War College Journal



strategic capabilities of a carrier battle group, its significant preparatory time to sail out and reach a location, can be compensated in the interim with the swifter response of land-based airpower. The current advanced fighter inventory of the IAF with long range stand-off precision weapons, mission packaged with AWACS/AEWC/Maritime Recce and flight refueling ac, enables Indian airpower to be effectively applied across widely separated maritime spaces. Enhancing joint operations between the IAF and IN to enable air power to reinforce maritime power is easily doable. While the PLAN carries extensive patrolling in the IOR, it is not supported by airpower. Since its own carrier fleet cannot make its presence felt everywhere, the long range IAF-IN packages can provide a strong signal of India's joint military capability. Imagine the effects of strategic signaling by Indian airpower with IAF aircraft exercising with the IN and other friendly forces deep in the IOR or along our vital SLOCs. It will not only contribute to the stability in the region by counterbalancing any PLAN task force, it will also signal a strong Indian strategic presence in the IOR.

Building on IAFs HADR image, there is tremendous scope for regular interaction with the regional AFs, especially Japan, South Korea, Vietnam, Philippines, Singapore, Malaysia, Thailand, Indonesia, and Australia. Interestingly, India has defence agreements with all these nations, including Brunei, Cambodia and Laos,¹⁶ and can build on regional cooperation, if not relationships. Undertaking a wide range of interoperability and HADR exercises, military support and training exchanges, and goodwill engagements with these AFs is an unrealized potential. Similarly, we should build on AF-to-AF relations in the West, with Oman, UAE, Kenya and Tanzania, as India has good relations with these nations. Oman, especially, has been a historical pivot of the Arab trade links with 'Al Hind' or India.¹⁷ The IAF already conducts air exercises with Oman and UAE. Building relations with Tanzania and Kenya, both nations with small air forces, by providing training and military support, can give Indian airpower access to the western edge of IOR.¹⁸ Building 'air bridges of friendship and cooperation by increased engagements with AFs on the East and the West, is an under-invested option with immense possibilities.

16 MEA Annual Report 2015-16.

17 Robert D. Kaplan, *Monsoon*, Random House, 2011, p.22-31

18 World Defence Update 2017, Brahmand, Pentagon Press, 2017

END THOUGHTS

The SCS and IOR connect inexorably ties India to the SE Asian region, and puts it in a collision course with China's strategic interests. China's increased regional presence with its string of pearls, stretching from Djibouti (Africa), Gwadar (Pakistan), Hambantota (Sri Lanka), Chittagong (Bangladesh), Sitwe (Myanmar), and future developments in Kyaukphyu (Myanmar), Koh Kong (Cambodia) and the Maldives, further exacerbates India's regional security concerns. In the words of Bertil Lintner – "if an armed conflict emerges from a 'misstep' or a more calculated provocation, it is likely to occur in the Indian Ocean" and "where China's ambitions for regional supremacy are the strongest".¹⁹ Given the current maritime power competition, and the overstretch of responsibilities of the IN, land-based airpower will increasingly be called upon to secure the air space over oceans. China has already stolen the march by increasingly exploiting its airpower coercively as an instrument of its foreign policy in the region. There are definite takeaways from the way PRC has leveraged airpower in its national interests specifically in the ECS and the SCS, and expanding it into the Indo-Pacific region.

India's leadership is already seized of the new great game in the IOR, and has indicated the trajectory of its strategy – which is inclusive in the common pursuit of progress, prosperity and security, towards a rules-based regional order. The PM's vision is inclusive of the maritime and air domains. In the complex regional geo-political milieu of the future, the strategic capabilities of Indian airpower today enable a range of hitherto unexploited options. Strategic signalling, greater regional aerial presence, increased synergised operations with the IN, furthering of cooperative engagement with regional Air Forces in training, regional security exercises, HADR drills and exercises, are some of the many options. These airpower options, if exploited, will provide an additional asymmetric leverage in furthering the SAGAR strategy, bolstering regional stability and cooperation, thereby securing India's Strategic interests in the IOR.

¹⁹ Bertil Lintner, *The Costliest Pearl: China's Struggle for India's Ocean*, Context, Westland Publications Pvt Ltd, Chennai, 2019

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INDIAN NAVY ENHANCES S.A.G.A.R: ANYTIME & ANYWHERE

By Commodore O. Johnson

“India’s goal is to seek a climate of trust and transparency; respect for maritime rules and norms for all countries; sensitivity to each other’s interest; peaceful resolution in maritime issues; increase in maritime cooperation. We seek a future for Indian Ocean that lives upto the name of ‘SAGAR’ – Security and Growth for all in the Region”

Foreign Minister of India, S. Jaishankar

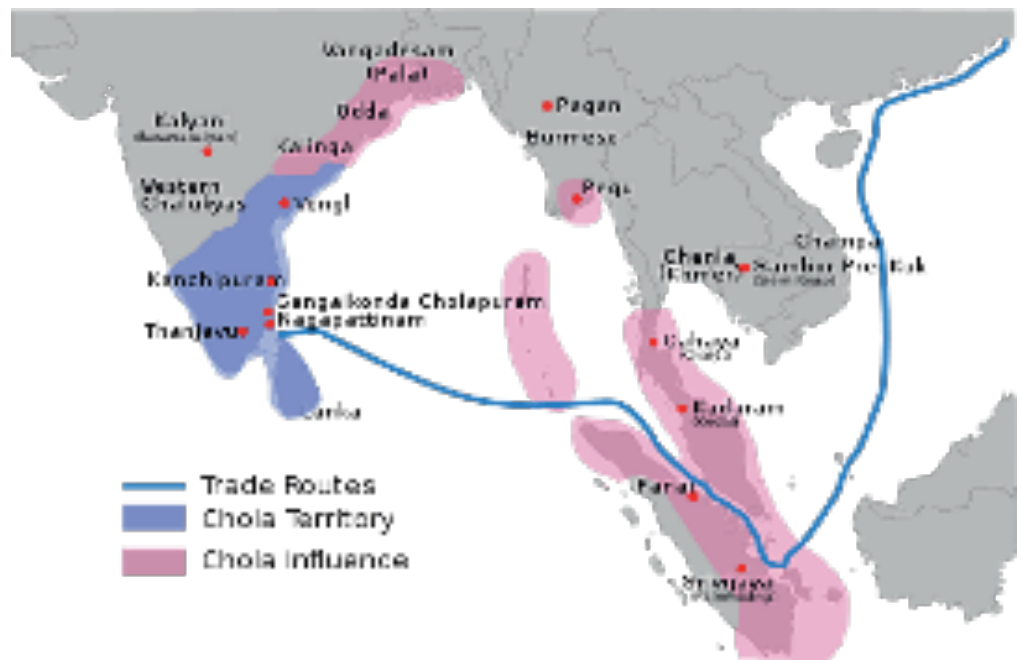
India has a multi-millennial history of maritime influence across the Indian Ocean traversing culture, commerce and connectivity, in a largely conflict-free journey. This influence has continued even post-independence, with the Indian Navy playing a key role in major military operations and disaster relief operations after 1947. In the Golden Jubilee Year of Indian humanitarian intervention of 1971, which led to the birth of the maritime nation of Bangladesh, it is apt to commemorate application of maritime power to usher peace and good order at sea.

India’s contemporary approach to the Indian Ocean is encapsulated by the concept of SAGAR (Security and Growth for All in the Region). While each element of SAGAR requires equal attention, developing an effective response mechanism to address humanitarian crises and natural disasters is one of the most visible elements in India’s evolving Indian Ocean strategy. The Indian Navy has time and again demonstrated that it stands strongly by its IOR partners in times of need.

THE CHOLA NAVAL EXPEDITION AND GULF OF ADEN DEPLOYMENT

India’s prowess in naval warfare can be traced to the pre-modern era Chola empire that ruled the southern part of ancient India (984-1042 CE). While Raja Raja Chola was the first king with a naval fleet, his successor Rajendra continued expansion of the empire in the far East. Raja Raja, in his twenty-ninth regnal year, captured the Twelve Thousand Islands - the Maldives. In 992-3CE, he invaded Sri Lanka and captured the

city of Anuradhapura and thereafter extended his naval expedition to Southeast Asia. The growing menace of piracy in the waters of Malacca and Singapore Straits were fuelled by littoral support and an abdication by the surrounding territories from intervening to curb piracy. RajaRaja launched a successful expedition to resume a peaceful use of the seas, which is the legacy on which India's pioneering initiative in 2008 to deploy naval ships to the Gulf of Aden was built, to collaboratively address the threat from Somali pirates.



Map showing the extent of the Chola empire at its peak and the sea trade routes

NAVAL POWER TO MITIGATE A GENOCIDE

Every year, 04 December is commemorated as the Indian Navy Day to commemorate the audacious attack on the Karachi harbour by Indian Naval missile boats during the 1971 Bangladesh liberation war. This was a humanitarian intervention in response to brutal suppression of legitimate Bengali nationalist protests in the then East Pakistan, and subsequent genocide unleashed by the Pakistan Military. The events that led to Bangladesh's liberation in 1971 and the role played by the Indian Navy, forever changed the course of the sub-continent history.

Late Capt MNR Samant, MVC and Sandeep Unnithan, in their book "Operation X" showcase a series of operations undertaken under the meticulous planning, direction and knowledge of the key planners,

Admiral SM Nanda, then Chief of Naval Staff, Captain MK Roy, then Director of Naval Intelligence (later Vice Admiral) and with express knowledge of the apex leadership. Innovative sabotage missions, which were classic deltaic and riverine naval operations, decisively swung the advantage towards the suppressed locals, with minimal losses.



Operation Jackpot, Chittagong port

'Operation Jackpot', under the direct stewardship of Capt Samant, sank and damaged about 60,000 tonnes of shipping. Twenty-five ships were sunk in the span of just one hour on August 14, 1971. The action by the naval commandos supported by airborne strikes from aircraft carrier INS Vikrant, impaired the transport of men and material using waterways across the strife-torn province, and also scared away foreign vessels bringing ammunition from Pakistan.

INDIAN NAVY AS THE INSTRUMENT OF RELIEF: TSUNAMI 2004

Navies in the post-modern era have been deployed to address non-traditional threats and mitigate effects of natural disasters. From anti-piracy to anti-trafficking, counter-terrorism and migration control, the scope of unconventional security tasks undertaken by maritime forces in recent years has expanded significantly. That intervention, post the Indian Ocean tsunami in December 2004, saw Indian Navy undertake disaster relief missions at a regional scale, despite severe impact of the same on its own coast. This was a multi-national disaster with the affected

Indonesia, Sri Lanka, India, Thailand, Malaysia, Myanmar amongst others, stretching all the way across to the East coast of Africa.



The Indian Navy has regularly participated in HADR missions in South Asia, West Asia and even the South China Sea, carrying out relief operations, search and rescue and emergency evacuation of people in need of urgent assistance. The international community has also acknowledged India's capabilities and the navy has registered its presence as a compassionate power, capable of helping its neighbours even when India itself was affected.

DISASTER MITIGATION AND PREVENTION - MT DIAMOND & MV WAKASHIO

As we fast forward to the current year, the proactive contribution of Indian Navy in the Vande Bharat Mission under code name "Samudra Setu" enabled many Indian diaspora to return to the motherland amidst the pandemic induced restrictions. Even as this article goes to print, "Mission Sagar II" is providing relief to countries affected by disruption of essential logistics, including vital food grain [Mission Sagar I was conducted earlier in the year].

Mention must also be made of Indian Navy reaching out to provide assistance to mitigate a marine disaster in Mauritius and also preventing a disaster off Sri Lanka. The Japanese freighter 'MV Wakashio' ran aground on Mauritius' coral reefs on 25 July this year. It remained stuck and started breaking apart 13 days later on 6 August, releasing 1000 of its estimated 4000 tons of heavy bunker fuel into the pristine waters of the Indian Ocean, as a large gash started appearing on the side of the vessel.



Mauritius Oil Spill, 2020



INS Nireekshak at Mauritius for Disaster Assistance, 2020

Indian Navy provided assistance by sending INS Nireekshak, a specialised Diving Support Vessel, which provided diving assistance, seaward security and medical cover at the site.

A few months later, Indian Navy stepped up for disaster relief response to douse a fire onboard vessel MT New Diamond on 3 September. MT New Diamond was damaged off the Sri Lankan coast, posing a grave

threat to the environment and maritime ecosystem of the region. Indian Navy led by INS Sahyadri initiated a multi-sectoral response to rescue the stranded crew and gain control of the fire, which threatened a regional disaster. India's assistance was in line with its SAGAR policy to extend humanitarian assistance and disaster relief to its neighbours in the Indian Ocean region. The urgent assistance reflected the close bonds of friendship maintained by India and its abiding commitment to be 'First New Responder to Urgency'.

CONCLUSION

Addressing non-traditional threats in the Indian Ocean Region (IOR) is one of Indian Navy's most prominent roles. Over the past decade, higher instances of natural disasters and regional instabilities have necessitated increased deployment of Indian Navy for undertaking Humanitarian Assistance and Disaster Relief (HADR), Non-Combatant Evacuation (NEO), and Search and Rescue (SAR) Operations. The Indian Navy continues to be at the forefront of HADR operations in coastal areas, both in India and in the maritime neighborhood.

The Indian Navy has repeatedly demonstrated its capability as a "First Responder to Urgency" along the Indian Ocean littorals. By contributing its resources to prevent or mitigate regional or international crises, the Indian Navy continues to showcase not only its ability to sustain long deployments across the IOR, but also engenders 'Collective Maritime Competence' and shores up India's credentials as a responsible power of significance on the global stage.

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Rajta, Suhash. "1971: Indian Navy owned Indian Ocean." The Tribune, September 1, 2019. Retrieved from, <https://www.tribuneindia.com/news/archive/book-reviews/news-detail-826018>

Roy, Probir. "A 1971 Bangladesh war hero fades away, quietly." Firstpost, April 5, 2019. Retrieved from, <https://www.firstpost.com/india/a-1971-bangladesh-war-hero-fades-away-quietly-6393751.html>

Captain M.N.R Samant and Unnithan, Sandeep. "How Indian Navy operated a secret commando group and spooked Pakistan in 1971." The Print, August 24, 2019. Retrieved from, <https://theprint.in/pageturner/excerpt/how-indian-navy-operated-a-secret-commando-group-and-spooked-pakistan-in-1971/281523/>

Singh, Abhijit. "The Indian Navy's humanitarian impulse." Livemint, June 14, 2017. Retrieved from, <https://www.livemint.com/Opinion/5yMHleapeZianzdanLf9JN/The-Indian-Navys-humanitarian-impulse.html>

Commodore Bhaskar, Uday. "Tsunami Reveals Indian Military's Humanitarian Response Capability." IDSA, January 8, 2005. Retrieved from, https://idsa.in/idsastrategiccomments/TsunamiRevealsIndianMilitarysHumanitarianResponseCapability_CUBhaskar_080105

Mishra, Abhishek. "India's vision of SAGAR: Humanitarian assistance and disaster relief operations in the Indian Ocean Region." Observer Research Foundation, February 3, 2020. Retrieved from, <https://www.orfonline.org/expert-speak/indias-vision-of-sagar-humanitarian-assistance-and-disaster-relief-operations-in-the-indian-ocean-region-61000/>

Singh, Ashish. "India sends helicopters, ships and machines to help Mauritius combat oil spill." The Daily Guardian, August 20, 2020. Retrieved from, <https://thedailyguardian.com/india-sends-helicopters-ships-and-machines-to-help-mauritius-combat-oil-spill/>

Siddiqui, Huma. "Mauritius Oil Spill: Made in India sponges being used in the clean-up; First responder Indian Navy provides assistance." Financial Express, August 29, 2020. Retrieved from, <https://www.financialexpress.com/defence/mauritius-oil-spill-made-in-india-sponges-being-used-in-the-clean-up-first-responder-indian-navy-provides-assistance/2068929/>

Purkayastha, Shorbori. "Was Shivaji The 'First Indian Ruler' to Build the Navy?" The Quint, February 20, 2018. Retrieved from, <https://www.thequint.com/news/india/was-shivaji-the-first-indian-ruler-to-build-the-navy>

INDIA- MALDIVES RELATIONS – SYMBOL OF MUTUAL TRUST AND RESPECT

By Sunjay Sudhir

“Our interests in the region are vast, and our engagement is deep. In the Indian Ocean region, our relationships are becoming stronger. We are also helping build economic capabilities and improve maritime security for our friends and partners.”

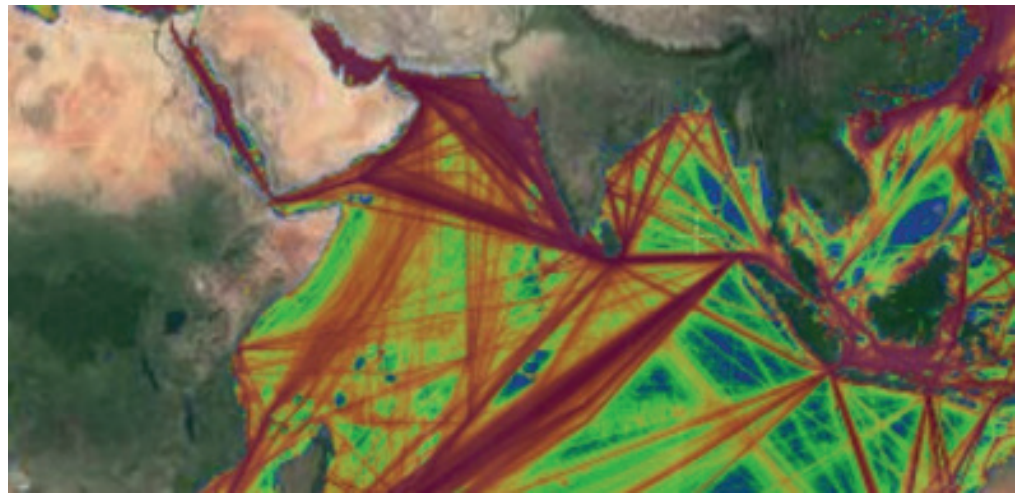
- Prime Minister Modi at Shangri-La Dialogue (2018)

The Republic of the Maldives, arguably the most strategically located in the Indian Ocean Region (IOR), is an archipelagic island nation in the Indian Ocean - Arabian Sea area, consisting of a double chain of twenty-six atolls, oriented north-south, that lie between Minicoy Island (the southernmost part of Lakshadweep, India) and the Chagos Archipelago. With an area of 300 sq km; an area equal to the Indian city of Pune, this ‘little’ country is the smallest in Asia and ninth smallest in the world. However, despite the small land mass, it has a ‘big’ EEZ of almost 923,000 sq km which is as much as the size of the landmass of Nigeria, and to the surprise of many, its EEZ is more than that of the largest country in Asia.

Indo Maldivian Relations. India and Maldives share ethnic, linguistic, cultural, religious and commercial links steeped in antiquity. Except for a brief period between February 2012 to November 2018, relations have been close, cordial and multi-dimensional. India was among the first to recognize Maldives after its independence in 1965. Bilateral diplomatic relations are as old as the independence of Maldives. India has a pre-eminent position in the Maldives, with engagement extending to virtually all areas. ‘India First’ has been a stated policy of the Government of Maldives. This is reciprocated in equal measure by India’s ‘Neighbourhood First’ policy. The two are complementary to each other.

Maldives’ Geography. Maldives is geographically positioned strategically between the western Indian Ocean chokepoints of the Gulf of Aden and the Strait of Hormuz on the one hand, and straits of Malacca, Sunda and

Lombok, on the other. 50% of India's external trade and 80% of India's energy trade transits through these international sea lanes. This vantage location with less than 1% land and above 99% water straddling the three vital sea lanes: 8degree channel, 1 ½ degree channel and Equatorial channel, overlooking almost all the trade and oil passing east-west from Bab el Mandeb, Hormuz and the East coast of Africa to the oil hungry East and South East Asian countries has made Maldives a very important nation in the IOR.



Density of International Sea Lanes around Maldives



Maldives' EEZ – a comparative picture

ENHANCING COOPERATION

POLITICAL RELATIONS. India's relationship with the Maldives is free of any politically contentious issues. Nov 2018 was a watershed in propelling relations to a new trajectory with President Ibrahim Mohamed Solih assuming office. Uptill then relations were steady without being spectacular. Relationship building with maritime neighbors has only recently got the attention that it deserves. Things changed with Security and Growth for All in the Region (SAGAR) being announced as a doctrine of maritime cooperation in the Indian Ocean region by Prime Minister Narendra Modi in March, 2015. In the words of External Affairs Minister Sh Jaishankar, "this is expressed in terms of sharper political visibility, higher process attention and more project investments. An integrated view has to be built up covering trade, tourism, infrastructure, environment, blue economy and security." Prime Minister Modi attended the inauguration ceremony of President Ibrahim Mohamed Solih on 17 November 2018 as the only serving HoS/HoG. He also held bilateral discussions with President Solih just after his swearing-in ceremony, in which he conveyed India's desire to work closely for the realization of Maldives' developmental priorities. Foreign Minister of Maldives Abdulla Shahid paid an Official visit to India in November 2018 along with a full Ministerial delegation. On his first overseas visit after assuming office, President Solih paid a State Visit to India from 17-18 December 2018, during which India announced a economic package of US\$1.4 billion and also offered additional 1000 scholarships over the next 5 years.

Defence Minister Mariya Didi accompanied by Chief of Defence Force Major General Shamaal visited India in January 2019, during which the 2nd Defence Cooperation Dialogue was also held. The visit helped put the bilateral defence relations back on track. Former EAM Late Smt Sushma Swaraj visited Maldives on 17-18 March 2019 and met the President, Speaker and 10 Ministers. President Solih paid an unofficial visit to Bengaluru on 21-22 April 2019 to witness the IPL match between Chennai Super Kings (CSK) and Royal Challengers Bangalore (RCB) as well as to discuss broad contours of capacity building of cricket in the Maldives and training of the Maldivian cricket team.

PRIME MINISTER'S VISIT – 09 JUN 2019. Prime Minister Modi, on his first overseas visit after taking oath of the office for his second term, visited Maldives on a state visit on 8-9 June 2019. He had one on one meeting with President Solih which was followed by delegation level talks. PM Modi also addressed a session of the newly constituted People's Majlis. He met Vice President Faisal Naseem, Speaker of People's Majlis Mohamed Nasheed, Minister of Foreign Affairs Abdulla Shahid, former President Maumoon Abdul Gayoom, former speaker Qasim Ibrahim and Minister of Home Affairs Imran Abdulla. Several MoUs were signed including:-

- (a) MoU on cooperation in the field of Health.
- (b) MoU on establishment of Passenger cum Cargo service by sea.
- (c) MoU for cooperation in Customs' capacity building.
- (d) MoU between Maldives Civil Service Commission and NCGG, Mussoorie.
- (e) MoU on cooperation in the field of Hydrography.
- (f) Technical Agreement on exchange of White Shipping Information between IN & MNDF.
- (g) Both the leaders jointly inaugurated Composite Training Facility (CTC) facility of MNDF in Maalifushi and Coastal Surveillance Radar System by remote links. Both sides agreed for resumption of the NSA level trilateral mechanism (India – Maldives - Sri Lanka) on marine security and constitution of a Joint Working Group on Counter Terrorism.

ECONOMIC PACKAGE - US\$ 2.2BILLION.

As the Prime Minister said at Shangri-La Dialogue (2018), "India's growing engagement is accompanied by deeper economic and defence cooperation." During State Visit of President Solih to New Delhi on 17-18 December 2018, Gol announced a US\$ 1.4 billion financial package in the form of budgetary support (US\$50 million), buying of treasury bills (US\$ 150 million), currency swap (US\$ 400 million) and concessional Line of Credit (LoC) (US\$ 800 million) to fulfill the socio-economic development programme of the Maldives. The projects being undertaken as a part of LoC include Water and Sanitation Project in 34 Islands, Addu

Development Project (Roads and Reclamation), expansion of MIFCO (fisheries) facilities, Cancer Hospital at Hulhumalé, Gulhifalhu Port project, expansion of Hanimaadhoo and Gan airport and the Hulhumalé Cricket Stadium. These are big projects of vast socio-economic impact. Another US\$ 750 million package including US \$ 500 million (\$400 million LoC and \$100 million grant) for the Greater Malé connectivity Project (GMCP) and US\$ 250 million budgetary support were announced in August 2020. GMCP is a key project – it will connect Malé with the three close by islands through a 6.8 km long bridge, road and causeway link. It will be a new economic lifeline connecting Gulhifalhu, where a Port is being constructed through a LoC, and the industrial zone in Thilafushi.

OTHER PROJECTS. India is not only implementing big infra projects, but also a plethora of relatively smaller projects spread across the islands. India is implementing 30 High-Impact Community Development projects across the atolls with a total financial outlay from India of MVR 200 million (USD 13 million). These projects promote socio-economic development, particularly creation of infrastructure in education, health and community development sectors. The highlight of these projects is that such projects are fully conceived, tendered and implemented by Local Councils. This has given rise to domestic capacity building. The tendering, execution and monitoring is all done at the local level. The range of areas include health, energy, coastal protection, sports, transportation, strengthening local council infrastructure and others.

DEFENCE COOPERATION

“India Armed Forces, especially our Navy, are building partnerships in the Indo-Pacific region for peace and security, as well as humanitarian assistance and disaster relief. They train, exercise and conduct goodwill missions across the region.”

- Prime Minister Modi at Shangri-La Dialogue

Defence partnership is a key element of India - Maldives relations. Since 1988, India has adopted a very flexible and accommodative approach in meeting Maldivian requirements of defence training and equipment. A comprehensive Action Plan for Defence was signed in April 2016 to consolidate defence partnership. The partnership has subsequently been

marked with understanding in various capacity building and capability enhancement schemes between the two nations.

TRAINING. India provides the largest number of training opportunities for Maldivian National Defence Force (MNDF), meeting around 90% of their defence training requirements. Almost 1250 MNDF trainees have been trained in India during the last decade. India had also funded construction of the Composite Training Centre (CTC) at Maafilaa fushi Island in Lhaviyani Atoll, which was completed in May 2016 and is now the main training academy for MNDF. The CTC project was inaugurated by PM Modi and President Solih on 8 June 2019. India is now funding enhancement of these facilities further.

EXERCISES AND HARDWARE. There are presently three major joint exercises with Maldives. Exercises are regular and dates are decided in mutual consultation. 14th edition of Maldives-India-Sri Lanka Joint Coast Guard Exercise “Dosti” was held in Maldives from 25-29 November 2018. The 15th edition planned in Nov 2020 had to be postponed in view of COVID-19 pandemic. The 10th edition of Indian Army-MNDF Joint Exercise “Ekuverin” was held at Pune from 7-20 October 2018. 4th edition of Indian Navy-MNDF Marines-MNDF Coast Guard Joint Exercise “Ekatha” was planned in Maldives in April 2020, has also been postponed due to COVID-19 pandemic. MNDF also regularly participates in Humanitarian Assistance & Disaster Relief, Search & Rescue, Pollution Control, Sambandh and MILAN exercises organised by Indian Armed Forces. India has majorly contributed to MNDF defence requirements by provision of ships Huravee, fast interceptor craft Kaamiyaab and a Landing craft; Ammunition and riot gear and pollution control material. In addition, technical and medical assistance is provided by Indian military personnel that facilitate capability enhancement of MNDF. India has also facilitated MNDF in setting up their CG Aviation Wing with two Advanced Light Helicopters and a Dornier aircraft to assist MNDF in search & rescue, medical evacuation of critical patients and surveillance. So far, over 300 lives have been saved by these aircraft and helped India earn a lot of goodwill from the local populace.

ASSISTANCE IN SURVEILLANCE. One of the biggest challenges for the Maldives is to ensure surveillance of the vast EEZ and 1192 islands.

That's where Indian Navy has stepped in to facilitate capacity building by training, provision of hardware and setting up of infrastructure in Maldives. The Coastal Surveillance Radar System (CSRS) that was ceremonially inaugurated by PM Modi and President Solih in June 2019 is being augmented with more radar stations so as to cover the entire length of Maldives. Once all radar stations are operationalised, this system is expected to greatly decrease instances of smuggling which usually pass undetected in Maldivian waters. Joint EEZ surveillance programme with MNDF has been carried out continuously since September 2009, except for a brief period in 2018. Technical Agreement for Exchange of White Shipping Information was signed in June 2019 during visit of PM Modi.

OTHER DEFENCE SUPPORT. India has facilitated the setting up of Senahiya Military hospital in Malé in 2012. Indian AFMS doctors and paramedics have been deputed at this MNDF Hospital and provide support in treating not only MNDF personnel but also civilians. In addition, MNDF doctors and paramedics are trained in Indian Defence Medical establishments. Indian Navy has also supported MNDF in hydrographic surveys since last 15 years. In addition, GoI is also facilitating the construction of the new Ministry of Defence (MoD) building in Malé.

INDIA AS FIRST RESPONDER IN ANY EMERGENCY SITUATION IN MALDIVES

On numerous occasions, India has demonstrated that in times of any emergency situation in the Maldives, India will always provide assistance as the first responder. The successful operations have established time and again that India has the capability, commitment and proximity to assist a friendly neighbour in times of crises. This is a point generally appreciated by the government and people of the Maldives.

OP CACTUS. India's prompt assistance in the form of Operation Cactus, during the 1988 coup attempt, when the Indian Military landed at Malé within 16 hours of request for assistance from GoM, led to development of trust and long-term and friendly bilateral relations with the Maldives. The successful operation demonstrated our commitment to support the sovereignty and territorial integrity of the Maldives. The immediate

withdrawal of our troops when they were no longer required (exactly one year after the coup) assuaged fears of any Indian dominance or territorial aspirations.

OP CASTOR & OP NEER. India was the first to assist Maldives during the 2004 Tsunami (Op Castor) as well as the water crisis in Malé in December 2014 (Op Neer). Under Operation Castor, Indian Navy deployed Indian Navy ships Mysore, Udaygiri & Aditya for assistance to Maldives. During Operation Neer, India rushed bottled drinking water to Malé utilising Naval ships Sukanya & Deepak and Air Force aircraft C17s & ILs. These incidents (in 1988, 2004 and 2014) established the advantages of India's proximity and capacity to come to Maldives' rescue in distress vis-à-vis any other country and are widely acknowledged by the government and people of Maldives.

SUPPORT DURING COVID-19 PANDEMIC. Assistance during COVID-19 pandemic again highlighted a whole of Government approach from the Indian side to assist the Maldives in perhaps the worst crisis ever with major impact on human and economic level. India's assistance was prompt, sizable and suited to the needs of the Government and people of the Maldives.

All nine Maldivians were extracted from Wuhan by Indian flights in Feb 2020. Maldives was the first country for which India carried out operations during the pandemic. A Medical team consisting of doctors, nurses and paramedics assessed the state of Maldivian preparedness, supported them for the same and recommended incorporation of best practices to ensure a robust organisation in Maldives. Under Op Sanjeevani, 6.2 Tons medicines ordered by GoM on Indian vendors was supplied to GoM on 02 Apr 20 through an IAF aircraft despite the lockdown in India. Indian Navy ships IN Jalashwa, IN Magar and IN Airavat carried out evacuation of Indians (especially the ill and needy who desperately needed to be evacuated) from Malé and under 'Mission Sagar'. INS Kesari delivered 580 tons of much needed relief food assistance. India has also announced that it will accord priority to the Maldives in providing COVID vaccine.

CONCLUSION

The frequency, number and diversity of threats other than war have increased significantly in the recent past. Notably, most of these crises; both manmade and natural, are occurring in the economically relevant (resource rich/ huge markets/ strategic locations) of the developing world, specifically in the IOR. Also, these areas have been subject to a number of disturbances, both manmade and natural that have led to avoidable adversities. It would therefore, be prudent to assume that in the near future, the need for capacity building, capability enhancement and humanitarian assistance and disaster relief will continue to grow in these nations in the foreseeable future. India has also used various platforms like MILAN, IORA, IONS, to keep the IOR nations involved on a common platform. Consolidating Defence Capabilities of IOR Countries for Security of Global Commons is the need of the hour. India has been a very reliable partner for IOR nations towards achieving this aim, especially in defence and security. Maldives has a strong, stable and democratic government and a professionally agile MNDF. India will endeavor that both countries move together and increase peace and prosperity in their countries and jointly take on the challenge of transnational crimes and ensure a safe and stable IOR. In 2015, in Mauritius, Prime Minister Modi described India's vision and commitment in one word – SAGAR, which means 'ocean' in Hindi and SAGAR stands for Security and Growth for All in the Region. The External Affairs Minister, Sh Jaishankar elaborated SAGAR further during his keynote address at Indian Ocean Conference at Maldives on 03 September 2019, which encapsulates the essence of what we need to do for "Enhanced Peace, Security and Cooperation in the Indian Ocean":

"Premised on the belief that advancing cooperation and using our capabilities for the larger benefit would help India. SAGAR has four key elements. The first is to safeguard our mainland and islands, defend our interests, ensure safe, secure and stable Indian Ocean and make available our capability to others. The second focus is on deepening economic and security cooperation with our maritime neighbors and strengthening their capacities. The third envisages collective action and cooperation to advance peace and security and respond to emergencies and the fourth

seeks some more integrated and cooperative future for the region that enhances sustainable development.”

As a time tested friend, India will continue to work with the Maldives as a trusted and reliable partner.

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ENSURING GOOD ORDER AT SEA IN THE INDIAN OCEAN: INDIA'S COLLABORATIVE POLICY FRAMEWORK

By Commodore Abhay K Singh (Retd)

Strategic relevance of Indian Ocean matters more than ever in the current era of interconnected and interdependent economies. In addition to its relevance as a strategic highway of global maritime trade, Indian Ocean Region is also considered to be an engine for global economic growth with a high concentration of the fastest growing economies in its littorals which are both market and resource providers for the global economy. Developing economies in the region are on the cusp of critical economic transition which remains critically dependent on a stable maritime environment. Maintaining stability in the region is, therefore, critical to regional as well as global prosperity.

In the last three decades, the Indian Ocean has evolved from an international thoroughfare of trade and energy into a major global intersection for economy, resources and environment. An additional edge to the issue of security in the Indian Ocean is caused by the fact that the world's centre of geopolitical gravity has shifted with the economic centre gravity eastward to the Indo-Pacific region in which Indian Ocean rim states and Indian Ocean's sea lane of communications have emerged as a critical factor. At the same time, Indian Ocean shores are also home to nexus between terrorism, piracy, anarchy along with ever present threats from natural disaster and environment change.

In addition to the prevailing concerns of broader geopolitical tensions and uncertainties of world politics at the traditional end of threat spectrum, a diverse set non-traditional safety and security challenges in the region includes piracy, armed robberies at sea, terrorism, human trafficking, irregular movement of persons, drugs trafficking, illicit trafficking in wildlife, trafficking of weapons, crimes in the fisheries sector such as IUU fishing, degradation of ocean health, unlawful exploitation of marine resources and climate change with its related repercussions on

environmental security. Lurking beneath the fortuitous and fragile calm in Indian Ocean at present, there exists eminent threats from a rather potent symbiotic combination of piracy and terrorism. Even though the threat from Somalian piracy has somewhat receded, Gulf of Guinea has emerged as a serious hotspot. In addition, terrorists and extremist organisations are attempting to create a presence around the Red Sea and East African littorals.

Maritime security issues transcend clear boundaries of governmental responsibility or state competence. The high seas are, by definition, a transnational environment, over which sovereignty is shared, and where the state is but one actor among many. In this context, the management of maritime insecurity must inevitably incorporate a range of different actors and agendas, including those of the littoral states concerned, local communities and fishermen, flag states, multinational shipping or fishing interests, resource extraction and tourism industries, and sometimes private security companies. The geopolitical framing of maritime security challenges in the Indian Ocean has become more complex in the absence of overarching security architecture and overall security environment is critically dependent on circumstances in littoral states especially around choke points. Limited institutional capacities of littoral states has increased the risks of security in the Indian Ocean. Absence of an overarching security architecture and the lack of a comprehensive institutional framework is another serious hurdle in ameliorating maritime security risks.

The imperatives of the extensive maritime interests of the littorals and the vital importance of IOR SLOCs mandates a focussed approach towards ensuring 'Good Order at Sea' in the regional maritime domain. As a concept, good order at sea ensures the safety and security of shipping and permits countries to pursue their maritime interests and develop their marine resources in accordance with agreed principles of international law. The key pillars of 'Good Order at Sea' are 'Rule-Based order' and the quintessential principle, of the freedom of the seas. Good order at sea is an important, yet deceptively complicated concept. While all nations seek a stable rule-based order at sea, the twin factors of nationalism and resources hinder progress towards a collective,

collaborative and comprehensive approach to preserve and protect 'good order at sea. Simmering geopolitical tension and the selective and motivated interpretation of rules and norms have emerged a more serious challenge.

In the broader Indian Ocean 'good order at sea' is under strain as a consequence of several different, and interlinked factors of the maritime security environment. While all nations seek a stable rule-based order at sea, the twin factors of nationalism and resources hinder progress towards a collective, collaborative and comprehensive approach to preserve and protect 'good order at sea. Absence of an overarching security architecture and a robust institutional framework for collaborative approach further impede evolution of pragmatic solutions.

However, a sliver of a silver lining in the larger dark and grim stormy cloud hovering over turbulent regional maritime milieu is the increased awareness and growing concern, within the region and beyond, about the strategic challenges in the maritime domain. Maritime security cooperation has become the cornerstone of the institutional framework of bilateral and multilateral cooperation in the region. Progressively, there is growing cooperation and coordination of efforts in the region for addressing the relatively softer non-traditional security challenges- viz. piracy, humanitarian assistance, disaster relief, search and rescue (SAR) and the threat of maritime terrorism – both at a bilateral level among states and also through the sub-regional and regional institutional frameworks. Similarly, efforts for preventive diplomacy and confidence-building measures for mitigating risks are also intensifying. Indian Ocean Rim Association (IORA) and Indian Ocean Naval Symposium (IONS) have emerged as two key pillars in shaping inter-region and intra-region agenda for collective and collaborative approach towards ensuring good order at sea in the Indian Ocean.

While strategic stability in the Indian Ocean matters for all nations, India has a vital stake in the evolution of a stable maritime order in the IOR as the main resident power in the Indian Ocean region. India's central location and peninsular configuration provide it with required reach and flexibility to deploy its military assets within IOR in crisis or for collective security tasks. There exists a bipartisan consensus on strategic priority

and foreign policy at the national level. India has been conscious of its regional obligations and progressively has shown a willingness to share a larger burden of security responsibilities. The Indian Ocean remains a foremost priority for the Indian government, India's vision towards the Indian Ocean has been aptly described by Prime Minister Modi through acronym 'SAGAR' which stands for "Security And Growth for All in the Region". A five-fold framework, for India's maritime engagement with the Indian Ocean littorals, was outlined by Prime Minister Modi during his visit to Mauritius in March 2015 :-

- India will do everything to safeguard its mainland and defend its interest. At the same time, India will work to ensure a safe, secure and stable Indian Ocean Region.
- India will deepen its economic and security cooperation with its maritime neighbours and island states.
- India will support and strengthen the regional mechanism for maritime cooperation for collective action and cooperative approach towards advancing peace and security in the region.
- India will seek a more integrated and cooperative future in the region that enhances the prospects for sustainable development.
- Indian Ocean states hold the primary responsibility for peace, stability, and prosperity in these waters. At the same time, there is a need to recognise the stake of other nations.

India has been contributing to capability and capacity enhancement of IOR countries through training assistance and material support. Over the past four decades, the Indian Navy has trained more than 11,000 foreign naval, coast guard and marine police personnel from about 40 countries. Material assistance has included the transfer of ships and aircrafts by means of gift, sale, lease or attachment along with technical assistance which includes assistance for maintenance and support in the operation of vessels. India also regularly deploys its maritime assets in support of countries in the region based upon their request. These include EEZ surveillance and patrols; coordinated patrols (CORPAT); anti-piracy operations; humanitarian assistance and disaster relief operations; non-combatant evacuation operations; Maritime Interdiction Operations (MIO); Peace Support Operations.



The scale and scope of the white commercial maritime activities in the Indian Ocean make it untenable for individual countries to keep track of the grey foreign vessels or the black illegal vessels. One of the key initiatives of India's SAGAR doctrine has been collaborative efforts to reduce gaps in maritime surveillance through cooperation towards enhancing regional Maritime Domain Awareness (MDA). In Dec 2018, India established an Information Fusion Centre for Indian Ocean Region (IFC-IOR) to collate, fuse and disseminate intelligence on 'White Shipping' in the Indian Ocean and inputs on six broad categories of maritime threats: Piracy/Sea Robbery/Sea Theft, Maritime Terrorism, Contraband Smuggling, Irregular Human Migration, Illegal Unreported Unregulated (IUU) Fishing and Maritime Incidents.

In addition, India has been pursuing an ambitious Coastal Surveillance Radar System (CSRS) project to enhance international maritime domain awareness network establishment. The CSRS includes eight surveillance radars each in Seychelles and Mauritius, six in Sri Lanka, and ten in Maldives, all linked to over 50 sites on the Indian coast with a primary objective of coastal surveillance including small vessels that escape traditional radars. Recently, in October 2019, Bangladesh signed a pact

for India to develop a coastal surveillance system. A similar arrangement is also supposed to be on the way with Myanmar and Thailand.

Indian Ocean region as India's extended neighbourhood is a priority area for diplomatic, economic and security engagement. Emerging policy contours indicate India's greater willingness for a more active role in shaping the maritime environment for stability through a cooperative and collaborative approach in order to establish a concert of common principles and best practices for ensuring maritime harmony in the Indian Ocean region.

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CHAPTER 2

SECURITY



MARITIME SECURITY CONCERNS IN THE INDIAN OCEAN

By Admiral Ravindra C Wijegunaratne

“To be secure on Land, we must be Supreme at Sea”

- Jawaharlal Nehru

1. The world depends heavily on sea-borne trade for its continued existence and allowing all countries to participate in the global marketplace in the high seas. Undoubtedly, the economic and political affairs of South Asia have been dominated by the sea. Indian Ocean covers 20% of earth and ranks in third largest water coverage of the world. Indian Ocean Region comprises 38 littoral states, 24 Ocean territories and 17 landlocked countries. Two adjoining seas are connected with the Indian Ocean, the Arabian Sea and the Red sea, covering an area of 169,000 Sq. miles through the strait of Bab El Mandeb, and Persian Gulf, through the straits of Hormuz.
2. Indian Ocean is possessed with vast natural resources, minerals, fish, marine products, oil resources and natural gas. It also provides home to many choke points, such as the Straits of Hormuz, Straits of Malacca, Lombok and the Sunda Straits. Any disruption in traffic flowthrough these points can have disastrous consequences. The disruption of energy flows in particular is a considerable security concern for littoral states, as the majority of their energy lifelines is sea based. Since energy is critical in influencing the geopolitical strategies of a nation, any turbulence in its supply has serious security consequences.
3. Sri Lanka's geographical location has, traditionally, represented a significant point in the Indian Ocean region. Since ancient history, maintaining a maritime domain has become an important factor to Sri Lanka as it is an island nation and lies near to a regional superpower and also lies near the main sea route connecting West to East of the world. Further it is observed that two regional powers - China and India have made their presence in Sri Lanka in various methods such as ports, aviation and power plants constructions therefore it is paramount important to be aware of maritime domain. It has

enabled Sri Lanka to serve as a hub port to most of the countries around.

4. The powerful phenomenon of globalization has highlighted the criticality of Indian Ocean sea lanes for trade and energy security. Oil and gas- laden ships travel from the Persian Gulf transit via the Strait of Hormuz, around Sri Lanka through the Malacca Straits or Indonesia's archipelagic sea lanes into the waters of South China Sea. Reciprocal traffic, carrying finished goods, comes from China, Japan, Korea and Taiwan the other way. During the voyage they run the gauntlet of piracy, maritime terrorism and inter-state conflict. This is what worries many nations whose economies are dependent on trade and energy.
5. The strategic location of Sri Lanka as well as the Indian Ocean was amply highlighted in a letter that was written by Admiral Raeder, the German C-in-C in a report to Hitler dated 13 February 1942, state;
6. "Japan plans to protect this front in the Indian Ocean by capturing the key position of Ceylon, and she also plans to gain control of the sea in that area by means of superior naval forces. Fifteen Japanese submarines are at the moment operating in the Bay of Bengal, in the waters off Ceylon and in the straits on both sides of Sumatra and Java..."
7. "Once Japanese battleships, aircraft-carriers and submarines and the Japanese Air Force are based on Ceylon, Britain will be forced to resort to heavily escorted convoys if she desires to maintain communications with India and the Near East. Plans to strike westwards into the Indian Ocean and seize Ceylon had been prepared by the staff of the Japanese Combined Fleet".

ECONOMIC IMPORTANCE OF INDIAN OCEAN REGION

8. In general terms, maritime economic activities cover the production, distribution and consumption of goods and services involving the sea. Economic importance of the Indian Ocean is immense. Following are few facts which can be brought up in this regards:-
 - (a) About 30% of world trade is handled in the ports of the Indian Ocean.

- b) Half of the world's container traffic passes through Indian Ocean.
- c) Continental shelves cover about 4.2% of the total area of the Indian Ocean and are reported to be very Rich in minerals including Tin, Gold, Uranium, Cobalt, Nickel, Aluminum and Cadmium although these resources have been largely not exploited, so far.
- d) 40 out of 54 types of raw materials used by U.S. industry are supplied by the Indian Ocean.
- e) Several of the world's top container ports, including Port Kelang and Singapore, are located in Indian Ocean as well as some of the world's fastest growing and busiest ports.
- f) Indian Ocean possesses some of the world's largest fishing grounds, providing approximately 15% of the total world's fish catch (approximately 9 million tons per annum).
- g) 55% of known world oil reserves are present in Indian Ocean.
- h) 40% of the world's natural gas reserves are in Indian Ocean littoral states.

SECURITY CONCERNS/CHALLENGES OF THE INDIAN OCEAN REGION

9. The international security environment is dynamic and uncertain, with recurring disputes, crises, and conflicts in many regions, and endemic conflicts in regions of particular importance to the security of Sri Lanka. Concern over Sea lane and choke point security is one that any maritime nation cannot ignore in the present day scenario. Interdependence between nations for the smooth movement of global maritime trade cannot be denied, disruption of which will affect all nations and could be critical to some. For this reason it is paramount that the maritime community is prepared to meet any contingency that may arise from these vital sea lanes, chokepoints and narrow seas coming under threat or siege.
10. Unlike the past, the present day enemies are dynamic, irregular, networked and unorthodox. Security of this ocean can be threatened by means of terrorist threats, nation/state threats, transnational

criminal and piracy threats, pilferage etc. Illegal and unregulated fishing activities in these waters have become a prominent challenge not only to the security of Sri Lanka but also to the other regional countries.

MARITIME TERRORISM

11. Maritime terrorism was active in the region and Indian waters in particular since mid 1980's due to absence of effective maritime safety mechanism. South Asia and its surroundings constitute the hub of terrorist activities, and there is greater connectivity among terrorist groups. Cross-border terrorist networks are operating across the middle-East, Central Asia, South Asia, and South East Asia. Among the few terrorist organizations which have acquired maritime capabilities, the Liberation Tigers of Tamil Eelam (LTTE) stood as the most effective group. The LTTE played a pioneering role in the development and the wide use of suicide bombing as a terrorist weapon.
12. The military defeat of the LTTE and the dismantling of its military infrastructure have considerably reduced security threats in South Asia. The LTTE became a threat not only to Sri Lanka but also to other countries in the sense that its techniques were widely used and copied by other terrorist organizations. It had maintained close connection with other terrorist groups which used its shipping network. Pakistan and the Maldives experienced another type of maritime terrorist attacks: the use of the sea coast by terrorists to gain access to the land for asymmetric warfare against state actors.
13. On November 26, 2008, a group of terrorists launched a series of shooting and bomb attacks across Mumbai, India's financial capital, killing 164 people (including 26 foreigners). Group of militants from Lashkar-e-Taiba, traveled by sea from Karachi across the Arabian Sea and reached a fishing village called Machchimaar Nagar in Mumbai. Later, Union Home Minister P. Chidambaram stated in the Lok Sabha, "the Mumbai terrorist attacks have brought into sharp focus the vulnerability of our coastline that extends to 7,500 kms and the imperative need to enhance maritime and coastal security".

DRUG TRAFFICKING AND ARMS SMUGGLING

14. Drug trafficking and arms smuggling is an important aspect whilst considering maritime security. Due to huge profits, drug trafficking is become one of the most money-spinning means, which is used to finance terror networks and arms trafficking. Due to Sri Lanka's proximity to 'Golden Triangle' and 'Golden Crescent', Sri Lanka had become a major transit point for heroin to Europe and other Western countries on an organized scale. Heroin is routed via Sri Lanka from Pakistan or India on a big scale by sea by containers and mechanized fishing craft. This sea route takes two forms. One is from Pakistan to Mumbai (facilitated by underworld dons in the city), then to Tuticorin or Rameshwaram and then to Sri Lanka by sea, on from Pakistan to southern India.
15. Gunrunning by sea is also the safest means for transferring arms and ammunition worldwide. Arm smuggling can lead to interstate conflicts or disputes. The link between drug traffickers and arms smugglers is prominent and avowal fact worldwide. In national level drug trafficking and arm smuggling can influence the government. Moreover small arm smuggling can challenge the local government such as military takeover of the civilian government as we have well experienced during recent past in regional countries. Nullifying drug trafficking and arm smuggling is one of surpassing security challenges which is in front of Sri Lanka.

MARITIME PIRACY

16. Sea piracy since 2007 has become a significant impediment to global maritime commerce. The estimated annual cost of piracy to the global economy is around USD 7 to 12 billion. The projected cost of piracy by 2014 is USD 13-15 billion. In 2010, 86% of piracy activities worldwide were committed by Somali pirates. The numbers slightly decreased in 2011, but remained alarming at 62%. According to the International Chamber of Commerce (ICC), there were 439 pirate attacks worldwide in 2011 and up to middle of September this year it was 225. The instability prevailing in inland Somalia has transcended to the high seas including West coast of India and South as Mozambique Channel.

17. Maritime piracy is an expected security challenge to Sri Lanka. Even though there are no reported piracy actions in Sri Lankan waters there were a number of incidents in Indian Ocean. Right now there is no direct impact on Sri Lanka but it affects the entire global maritime trade and thereby Sri Lanka also can be affected. Dondra traffic separation schemes can have a little risk of piracy.. A Somalian seaman who apprehended off Dondra head sea accelerated the imagination and fear of piracy in Sri Lankan waters.

ILLEGAL UNREPORTED AND UNREGULATED FISHING

18. There have been problems relating to the illegal unreported unregulated fishing activities all over the country's EEZ. To name a few, bottom trawling, use of illegal fishing nets and use of explosives and poisons etc. It's the responsibility of the Navy to safeguard fishery wealth of the country. Sharing of fishery resources with neighboring countries.

19. Eradication of the terrorism from the country provided a greater leeway for the fishing in territorial waters. Sri Lanka should be capitalized in this regard and should dominate the northern waters which are enriched with the fishing wealth. Sri Lanka Navy should assist the security of fishing to a greater extent will be an opportunity to solve the cross boundary fishing problem over the years.

HUMAN TRAFFICKING

20. From a Sri Lankan perspective illegal migration is committed mainly for economic reasons. With the annihilation of the LTTE on ground in Sri Lanka, terrorists may also be illegally migrating encouraged by their foreign networks and may also be engaged in trafficking of their cadres across borders.

21. Also Geographical location of the Sri Lanka is one of the closest reasons for rising human trafficking. In the past, many illegal asylum seekers used Thailand and Indonesia as transit points. But presently it has changed. Sri Lanka has been identified as a transit point by human smugglers. The increasing incidents of foreigners using Sri Lanka to get on boats resulted in a number of locals taking the same risky route. During the year 2012, 10 to 12 months the Sri Lanka Navy

arrested over 2,000 illegal immigrants to Australia and arrested a large number of fishing boats which were used.

REGIONAL INTEGRATION; THE KEY TO SUCCESS

22. There are various viewpoints that have been presented on the theme. Out of the above areas that I have mentioned here in terms of using them as tools to address challenges in our region, effective 'Regional Integration' can be sighted as the most important pillar in finding solutions.
23. One country can be more powerful in terms of military, wealth or in size. But unless that country is a strong link in the regional integration process, the mere survival of that country is questionable. As a region which is fast becoming the attention of the whole world by gradually taking the center stage of geopolitics, we can surely improve the regional security cooperation and coordination of regional institutes. The regional integration need to focus on building up a cooperative security dialogue and effective apparatus. In developing such a mechanism we could always consider the involvement of extra regional assistance as our aim should be to establish a global reach. Some sources have sighted lack of homogeneity and lack of common identity in the region.
24. This regional integration is important to be expanded through strong defence cooperation measures aimed at being proactive to events such as natural disasters, Search and Rescue Operations and marine pollution incidents with close coordination with the regional navies and Coast Guards. Such formation of defence cooperation measures necessarily require going beyond the traditional models and concentrating on improved collective Indian Ocean Region cooperation and action.
25. There is also an important role that various organizations in the region can play in this regard. As many tend to view the Indian Ocean Region as a collection of Sub-regions, there is a need for Region-wide institutions too. Various Organizations/institutions such as Indian Ocean Rim-Association for Regional Cooperation (IOR-ARC), the ASEAN Regional Forum (ARF), South Asian Association for Regional

Cooperation (SAARC), Council for Security Cooperation in the Asia Pacific (CSCAP), Asia Pacific Economic Community (APEC), South Asia Regional Port Security Cooperative (SARPSO), Indian Ocean Naval Symposium (IONS) and even the Galle Dialogue among many other initiatives can be of immense value in bridging this much wanted bridge in the Indian Ocean Region.

26. Hence the 'Cooperative Approach' by way of 'Regional Integration' can be seen as the most ideal tool that can help our way forward when viewed through the Sri Lankan perspective to find solutions to maritime security concerns in the region.

We can never leave behind the famous prophesy of Alfred Mahan and his saying when we discuss issues related to Indian Ocean and security;

“Whoever controls the Indian Ocean dominates Asia. This ocean is key to seven seas. In the twenty-first century, the destiny of the world will be decided on its waters”.

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THE VALUE OF INDIA'S MARITIME MILITARY-DIPLOMACY

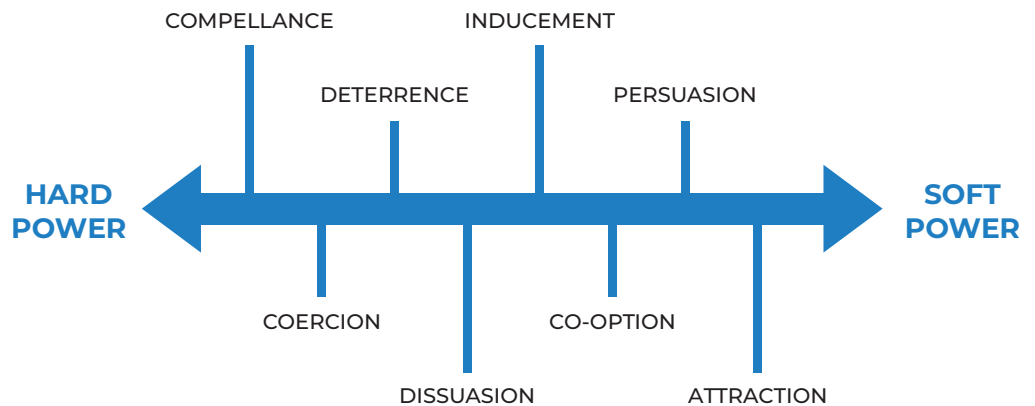
*By Vice Admiral Pradeep Chauhan,
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The value addition that military diplomacy provides within a country's geo-political manoeuvre space — that is, across its 'strategic geography' — is widely recognised across an overwhelming number of nation-states of the contemporary world. India is no exception and there is ample evidence of India's increasingly deft and dextrous use of military diplomacy as a tool of its foreign policy.

It is no exaggeration to state that the prospect of engaging in military exercises with India's regular armed forces, which are recognised as being amongst the world's most substantive and substantial, is one that is keenly anticipated by almost all countries whose maritime interests encompass or include the Indian Ocean. Thus, not only is there a growing stream of officers, officials and other personnel travelling to and from India, but official announcements — echoed and amplified by not just the mainstream print and electronic media, but also the many platforms through which social media maintains its ubiquitous presence and influence — of one or another military exercise being undertaken by India with a variety of foreign army, navy, marine and air forces have become commonplace.

Naval exercises in particular tend to dominate both headlines and analyses, lying as they do outside the gaze and direct experience of the vast bulk of the populace, and hence carry with them a distinctly attractive whiff of the exotic. Naval exercises are a preferred form of engagement also because they are, for the most part, inured from the day-today scrutiny that attends land-based or air-centric ones. Perhaps the most well-known contemporary example is that of the 2020 edition of the MALABAR series of naval exercises, in which the Royal Australian Navy, after a gap of some 13 years, re-joined the navies of India, Japan, and the USA, in wide-ranging exercises spanning both the seaboard of India. Why are exercises between India and foreign militaries gaining so much traction? The answer lies, as do so many others, in the fundamentals of

maritime power. It bears little elaboration that power, per se, denotes the ability of a given individual or collective entity to get 'another' to do what the practitioner of power wants the other to do. As Professor Joseph Nye's famous spectrum of power (slightly adapted or modified in the following depiction) succinctly shows, power can take many forms, both sequentially as well as simultaneously.



Joseph S Nye Jr., "Bound to Lead: The Changing Nature of American Power" (Basic Books, New York, NY 10022-5299, 1990 Edition, 267)

The exploitation, by the practitioner of power, of the various forms, shapes and manifestations of military institutions, which are primary sources of 'Hard Power', to 'persuade' or 'convince' (rather than 'coerce') the recipient State — especially its government — that what the practitioner wants is also what the recipient actually wants, is what 'military diplomacy' is all about. In other words, military diplomacy is a nation's skilful and dextrous utilisation of its primary instrument of hard power (the military) to exercise soft power (diplomacy) upon the government of another nation so as to shape the latter's thinking and institutions in a manner designed to yield a desired strategic result.

Military diplomacy is often simultaneously at play at the strategic level as well as the level of 'operational art' — the latter is the deployment of tactical assets in sequences of time and/or space and/or event to achieve a desired strategic result.

Indeed, the strategies adopted by a nation in its pursuit of predominantly geoeconomic goals frequently involve a complex mix of the two principal instruments by which a nation executes its foreign policy, namely, 'diplomacy' and the (usually peaceful) deployment of 'military force'. This international political interaction in the international arena is, of course, what is called 'Geopolitics'.

Driven by the need to pursue, preserve, promote, and protect India's core national interest which, derived from the Constitution, is "to assure the societal, economic, and material well-being of the People of India", India's approach is encapsulated by the vision of 'SAGAR', a word that in Hindi means 'Ocean' but is also an acronym that expands to "Security and Growth for All in the Region". This vision espouses India's belief that India can neither be secure nor grow without its maritime neighbourhood also being secure and prosperous. In other words, the Indian economy cannot ride on a crest while the economies of its maritime neighbourhood are wallowing in some trough. Growth cannot be separated from security and both have to be regionally inclusive pursuits.

Contemporary conflicts, such as those in Afghanistan, Syria and Iraq, as also the moves and countermoves in areas with a strong potential for conflict, such as the South China Sea, the Sea of Japan, and even the northern Arabian Sea, all offer strong evidence that military strength alone may not be sufficient to arrive at the desired socio-political end-state. Consequently, there is, today, a growing realisation that even in future inter-State armed conflicts, imposing one's will through organised military violence might not lead to success unless it is preceded, accompanied and succeeded by the shaping of behaviour — of friends, adversaries, and most importantly, global opinion-makers. This shaping of behaviour is what military diplomacy most effectively does.

There are a number of manifestations of military diplomacy. These include, inter alia, bilateral and multilateral officer-exchanges; periodic or regular exposure of personnel to foreign military and defence civilian organisations, structures, platforms, and units; periodic or regular contacts amongst senior officers and civilian officials; the appointment of defence attachés in foreign countries; bilateral defence cooperation agreements; the training of foreign military and civilian defence personnel; sharing of expertise and advice on the control and management of defence assets and organisational structures; warship visits; and 'combined' (as well as 'combined' and 'joint') military exercises.

Exercises with foreign militaries are a classic means of the exercise of military diplomacy. However, for them to be true to the aforementioned definition of military diplomacy, they must be designed to yield, over time,

a desired strategic result. The terms 'Joint' and 'Combined' ought not to be used interchangeably. 'Joint' Exercises/Operations imply exercises or operations conducted by two or more military/paramilitary agencies of the same nation. Examples of the correct use of the adjective 'Joint' would include 'IN-ICG Joint Exercises/Operations', 'IN-IAF Joint Exercises/Operations', 'IA-IAF Joint Exercises/Operations', and so on. 'Combined' Exercises/Operations, on the other hand, imply exercises or operations conducted by one or more military/paramilitary agencies of two or more different nations. Examples of the correct use of 'Combined Exercises might include 'IN-USN Combined Exercises', 'IAF-USAF Combined Exercises', 'IN-RSN Combined Exercises', and so forth. It is, of course, possible for 'Combined' operations/exercises to also be 'Joint'. Within the Indian context, Exercise TIGER TRIUMPH (conducted in November of 2019) between the Indian and US militaries, is a typical example of this. As one moves from 'combined' to 'combined and joint' exercises, the degree of complexity increases very substantially. Therefore, 'combined' exercises are the preferred option.

The following tabulation offers some illustrative (but not exhaustive) examples of exercises involving navy-centric manifestations of India's military diplomacy.

SI No.	Series Name	Participating Countries	Remarks
1	AUSINDEX	India, Australia	Annual
2	VARUNA	India, France	Annual
3	IND-INDO BILAT	India, Indonesia	Annual
4	IN-MN TTX	India, Malaysia	Annual (Table-top Ex)
5	IN-MN BILAT	India, Myanmar	Annual
6	NAESEEM-AL-BAHR	India, Oman	Annual
7	INDRA (Navy)	India, Russia	Annual
8	SIMBEX	India, Singapore	Annual
9	IBSAMAR	India, South Africa, Brazil	Once every two years
10	SLINEX	India, Sri Lanka	Annual
11	KONKAN	India, UK	Annual
12	MALABAR	India, USA, Japan, Australia	Annual
13	HABU NAG	India, USA	Annual Joint & Combined exercise, USMC, USN, IN, IAF, IA, Amphibious, HADR and Non-combatant Evacuation
14	RIMPAC	India, USA, countries of the Pacific Rim and selected Invitees	Joint & combined exercise, Once every two years (India's maiden participation: 2016)
15	SIMTEX	India, Singapore, Thailand	Annual (wef 2019)

facets of that term. This is not limited to technical interoperability alone. Tactical interoperability, too, is essential if a level of 'capability' is to be developed that would enable the optimisation of available 'capacity'. It is, as always, necessary to distinguish between 'capacity' (by which is meant material wherewithal, such as ships, submarines, aircraft, etc.) and 'capability' (by which is meant the creation, sustenance and practising of training and organisational skills — all of which involve the skilling of human beings — that would enable the maximisation of whatever 'capacity' is available. The degree of interoperability generated by naval exercises is certainly not limited to combat operations alone. It finds invaluable application in multinational naval operations for the provision of Humanitarian-Assistance and Disaster-Relief (HADR), or the evacuation of casualties (CASEVAC), or Non-combatant Evacuation Operations (NEO) — any or all of which could involve movements either from or to warships that may well belong to different navies. As India actively seeks and nurtures partnerships that would enable the provision of 'public goods' across the maritime common, interoperability generated through combined exercises will become more and more critical.

India's Prime-Ministerial statement-of-intent to be a net "security-provider in the Indian Ocean and beyond", where the term 'maritime security' implies not merely 'military security' but, the freedom from threats arising in the sea, from the sea, and, through the sea — irrespective of whether these threats have causes that are natural, manmade, or a hybrid mix of both. Towards this end, the concept of 'Constructive Engagement' is foremost amongst the various strategies that India has adopted and it is precisely this strategic concept that underpins India's espousal of the Indo-Pacific Oceans Initiative (IPOI), which was announced by Prime Minister Narendra Modi in November of 2019, at the 14th East Asia Summit (EAS). It is entirely fitting that amongst the seven pillars or spokes of the interconnected web of public goods that India seeks to promote through this initiative (Maritime Security; Maritime Ecology; Maritime Resources; Capacity Building and Resource Sharing; Disaster Risk Reduction and Management; Science, Technology & Academic Cooperation; and, Trade Connectivity and Maritime Transport), India has offered to take the lead in terms of 'maritime security' which,

it is germane to once again reiterate, involves 'holistic' security — the development of common approaches to common challenges.

India — and the Indian Ocean Region (IOR) — are fortunate in that they already possess an 'executive structure' by means of which the myriad activities that require to be done at sea to promote holistic security can actually be done. This 'structure' is the "Indian Ocean Naval Symposium" (IONS). In February of 2008, the heads of the principal maritime-security agencies of very nearly all the 38 'littoral' States of the IOR gathered in New Delhi at the invitation of the Indian Navy, and launched the IONS as the Twenty First Century's first significant international maritime-security initiative. These heads of the principal maritime-security agencies — most typically (but not exclusively) navies — were, of course, wise and experienced enough to recognise that while overarching challenges to maritime security might well be common across the IOR as a whole, the specific challenges that predominated in one segment of the IOR may not enjoy the same degree of primacy in another segment. Hence, it was decided that the IONS as a whole would focus upon each 'segment' in sequential fashion, with the 'conclave of the heads/chiefs' concentrating their collective focus upon a given segment and, thereafter, shifting its concentration to a new segment. To ensure that this could be done smoothly, the chairmanship of the IONS was made rotational, with a given chief of navy (or the head of the principal maritime-security agency concerned) holding the chairmanship for a period of two years. The inclusivity inherent in this pattern has proven to be hugely advantageous to the region as also to the continued relevance of the IONS construct itself.

The littoral countries of the IOR have accordingly been grouped into four 'littoral segments', as tabulated below:

East African Littoral		South-East Asian & Australian Littoral		South Asian Littoral		South-East Asian & Australian Littoral	
1	Bahrain	1	Comoros	1	Bangladesh	1	Australia
2	Iran	2	Djibouti	2	India	2	Indonesia
3	Iraq	3	Egypt	3	Maldives	3	Malaysia
4	Israel	4	Eritrea	4	Pakistan	4	Myanmar
5	Jordan	5	France	5	Seychelles	5	Singapore
6	Kuwait	6	Kenya	6	Sri Lanka	6	Thailand
7	Oman	7	Madagascar	7	UK*	7	Timor Leste
8	Qatar	8	Mauritius				
9	Saudi Arabia	9	Mozambique				
10	UAE	10	Somalia				
11	Yemen	11	South Africa				
		12	Sudan				
		13	Tanzania				

**Added subsequently, presumably on account of the British Indian Ocean Territory (BIOT)*

So as to provide the 'principals' with a range of analyses, each biennial 'Conclave-of-Chiefs' is supplemented by an IONS Seminar, which the Chiefs also attend, along with a galaxy of luminaries in various disciplines relevant to security within the maritime domain. The second rotation through all segments of the IOR is currently underway. Thus, attention at the apex levels of the navies/ principal maritime-security agencies has been focussed sequentially upon the four segments, with the chairpersons of the IONS having been from India (2008-2010), the UAE (2010-2012), South Africa (2012-2014), Australia (2014-2016), Bangladesh (2016-2018), Iran (2108-2020). The current chair is France (2020-2022). Growing recognition of the relevance of the IONS construct and the value of its feature of regional inclusivity in overcoming bilateral or dyadic challenges is evident from the fact that Pakistan, which participated for the first time at the level of its Naval Chief in 2014, is as valued a partner and member as any other.

In common with much of the world, countries of the IOR have been struggling with the several adverse impacts upon economic activity including maritime trade and maritime connectivity, as also the physical



and psychological stresses to which human populaces have been and continue to be subjected as a result of the ongoing COVID pandemic. In ameliorating the regional suffering being imposed by the pandemic, maritime facets of military diplomacy have increasingly become the instrument-of-choice of several littoral States and here, India's political leadership and that of the Indian Navy has a great deal about which to be very proud. To begin with, longstanding investments made over decades by India in maritime manifestations of military diplomacy have resulted in a high degree of acceptability of port-calls by Indian warships in most if not all countries of the IOR, whether for HADR tasks or NEO missions.

Thus, the "Vande Bharat Mission", involving the deployment Indian warships to repatriate Indian nationals stranded by COVID-induced travel-restrictions, had its maritime manifestation in "Operation SAMUDRA SETU" (meaning 'sea-bridge') and this was a hugely successful example of the effectiveness of maritime military diplomacy.

India demonstrated impressive displays of both capacity, and capability, making it abundantly clear that it genuinely cared for all those who bore its nationality, whether at home or abroad. In so doing, India was visibly stitching together the 'DIME' (Diplomatic, Information, Military and Economic) components of its 'Comprehensive National Power', embodied by the Ministry of External Affairs (MEA), the three Integrated Headquarters of the Ministry of Defence (MoD), civilian assets under the Ministry of Civil Aviation (MoCA) and the Ministry of Shipping, and, the country's fiscal resources administered by the Ministry of Finance. As the principal maritime manifestation of the sovereign power of the Indian republic, it was to the Indian Navy that the nation turned, charging it to bringing its countrymen and countrywomen 'home' — a worthy exercise of military diplomacy, carried out with commendable speed and abundant professional expertise.

There was not a single case of COVID infection throughout the massive evacuation-cum-repatriation operation. And yet, New Delhi made it abundantly clear that it did not subscribe to the "I-me-myself" approach that was being propounded in some parts of the world. Yes, Indian nationals were critical, but not exclusively so. Thus, hot on the heels

of “Operation SAMUDRA SETU” came “Operation SAGAR”. While the former had emphasised NEO, the latter was all about HADR, as India once again deployed its navy, this time to provide assistance to five IOR island nations: Maldives, Mauritius, Seychelles, Madagascar and Comoros. Both operations underscore the value of maritime military diplomacy and, in keeping with the vision of SAGAR and the IPOI, strengthen the position of India as a net provider of security, with the Indian Navy as the principal maritime agency and first responder within the maritime domain of the IOR.

For a large and competent navy such as that of India, the ‘diplomatic role’ is an extremely important one in times of peace and/or external-tension. India’s ‘naval diplomacy’ supplements her larger ‘maritime diplomacy’ and supports the application of India’s very considerable soft-power in terms of reassuring, strengthening, and persuading States within the IOR, especially those that may be facing challenges that can be addressed by the deft application of benign, cooperative and collaborative maritime power

Finally, however, it must be remembered that the effectiveness of ‘diplomatic-signalling’ by a navy is directly proportional to prevailing perceptions of its military capability and hence, the efficacy of maritime military diplomacy is functional upon the continued development of the navy as a whole.

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MULTILATERAL AIRPOWER EXERCISES WITHIN IOR: A STRATEGIC IMPERATIVE

By Air Vice Marshal PM Sinha, AVSM, VSM

“Whoever controls the Indian Ocean will dominate Asia, the destiny of the world will be decided on its waters.”

- Alfred Mahan

1. The Indian Ocean Region (IOR) expanse is from the Eastern coast of Africa to South East Asia with the continent of Australia in the south east. The warm waters of the Indian Ocean account for one of the most critical and busiest naval transportation links in the world. Almost a hundred thousand ships pass through it in a year, carrying almost half of the world’s container shipments, one-third of the world’s bulk cargo traffic and two-thirds of the oil shipments. Due to the vast amount of trade passing through its waters, Indian Ocean has gained vital importance well beyond the shores of the littoral states. Location of the Indian landmass in the centre of IOR, necessitates that India plays a vital role in the security and stability of the IOR.

ROLE OF AIR POWER TOWARDS STABILITY IN THE IOR

2. In addition to the littoral countries, a number of foreign players have also been constantly increasing their presence and influence in the IOR. Due to its location in the centre of the IOR, along with its capability to intervene and influence events, India is now showcasing itself as the net security provider in the Indian Ocean Region. While the soft power of India has made a mark in the IOR since a long time, the military power of the country has also proven itself a number of times. Some of the prime examples would be Operation Cactus (Maldives-1988), relief operations including Operation Rainbow for Sri Lanka (2004), Operation Castor and Operation Neer (2014) for Maldives. These examples highlight the role and importance of air power in the maritime domain. Since India has a potent air power, it

is could engage and exercise with regional as well as foreign forces transiting through the IOR towards achieving common goals of safety, security and mutual growth.

INCREASING CHINESE INFLUENCE IN IOR

3. China has concerns with respect to IOR in terms of the security of its energy supply lines. The meteoric rise of Chinese economy may be understood from the fact that its economy has grown manifolds since 1979. It became the world's largest exporter in 2009 and largest trading nation in 2013¹. It is at present competing with the USA for superpower status. To support its rapidly expanding economy, China has entered into long-term agreements with countries for import of fossil fuels, iron ore and other raw materials to process and it has evolved into the 'world's factory'². With the supply lines running across the IOR, China is concerned about the interdiction of its energy supplies through the Malacca Straits. China has undertaken numerous initiatives under BRI in the IOR littoral countries to strengthen its foothold through infrastructure development of ports, roads, pipelines and economic corridors. These alternative routes would ensure continuity in energy and raw material supply and would overcome the 'Malacca Dilemma'³. These infrastructure development projects aimed towards resolving the energy supply crisis have also been considered as the "string of pearls" in the IOR⁴. The CPEC joining Gwadar port of Pakistan to mainland China, Hambantota in Sri Lanka, and development of Naval base at Djibouti, facilities at Seychelles and Mauritius and other BRI projects in Myanmar, Bangladesh and other littoral nations are examples of increasing Chinese influence in the region.
4. The unexpected magnitude at which China has increased its presence in the IOR has only led to apprehensions and concerns amongst the littoral countries⁵. The increasing presence of Chinese

1 The Guardian 2014/Jan/10 China surpasses US as world's largest trading nation | Business | The Guardian

2 Gateway house China in IOR: 'peaceful rise' no more - Gateway House

3 IIT Madras China Study Centre IIT Madras China Studies Centre

4 Chinese String of Pearls The Chinese String of Pearls or How Beijing is Conquering the Sea – De Re Militari (drmjournal.org)

5 Arun Prakash, 'Introduction', Bhaskar C Uday and Agnihotri Kamlesh K (Eds.), 'Security Challenges Along the Indian Ocean Littoral-Indian and US Perspectives', Matrix Publishers, New Delhi, 2011, p.3.



Shipping lanes

Naval ships in IOR has certainly given rise to security concerns and this has resulted in closer security collaboration amongst various nations to ensure peaceful growth of the region.

ENHANCING COOPERATION WITH OTHER NATIONS

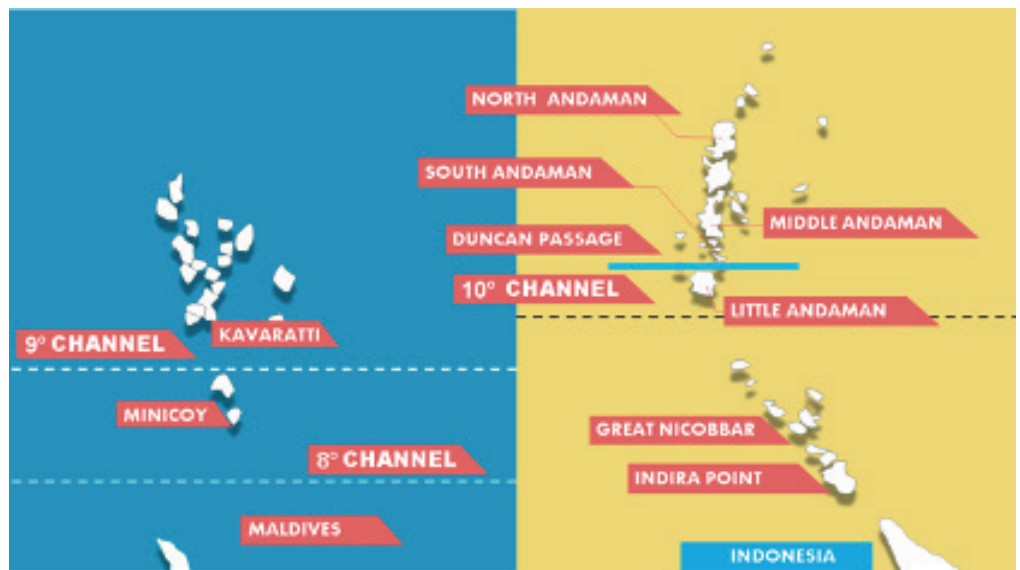
5. India took a lead step in 2008 through IONS (Indian Ocean Naval Symposium) to discuss various maritime issues with the littoral states so as to enhance cooperation and coordination within the participating nations. This has been further progressed by other institutions like IORA (Indian Ocean RIM Association) and IOR-ARC. (Indian Ocean RIM Association for Regional Cooperation). The Maritime policy highlighted by SAGAR (Security and Growth for All in the Region) has further enhanced initiatives through which various nations in the region can work towards regional cooperation and coordination. The first edition of the BIMSTEC Disaster Management Exercise was hosted by India in 2017 with the focus on testing the region's preparedness and resilience towards effective activation of inter-Governmental interaction/dialogue/agreements for immediate deployment of regional resources for disaster response⁶.

Arvind Dutta, 'Role of India's Defence Cooperation Initiatives in Meeting the Foreign Policy Goals', Journal of defence studies, Vol 3. No 3. July 2009, p. 31.

6 BIMSTEC BIMSTEC (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation). - INSIGHTSIAS (insightsonindia.com)

AIR POWER : FASTEST RESPONDER IN IOR

6. The fastest response against any form of aerial and surface threat in the IOR or for any HADR mission would be through Air Power due to its reach and responsiveness. The unique location of the Indian Peninsula in the IOR itself provides the capability of air power to influence remote locations within the region. The reach can be further enhanced by operating from airfields located in the Andaman and Nicobar Islands in the East and Lakshadweep Islands in the West. Long range aircraft supported by AAR along with Long Endurance UAVs operating from these forward island territories would be able to cover the entire expanse of the IOR from African Coast to the Malacca Straits. This would also provide security to the sea lines of communications (SLOCs) passing through the 9 deg, 10 deg and 6 Deg channels. Operations like ISR, Maritime patrolling, SAR and HADR can be undertaken by air assets when operating from the mainland and from friendly nations airfields located in the IOR. Effective Air power utilisation would certainly pave way for freedom of Navigation for all and at the same time be able to tackle any threat that develops in the IOR⁷.



9 Deg and 10 Deg channel in the IOR⁸

7 Brewster David. "An Indian Sphere of Influence in the Indian Ocean?" Security Challenges, vol. 6, no. 3, 2010, pp. 1-20, JSTOR, www.jstor.org/stable/26459796, accessed on 17 June 2019.

8 10-channel-duncan-passage-8-channel-and-9-channel_orig.png (1280×720) (shaktiiasacademy.com)

7. Therefore, there is a need to consider enhancing mutual cooperation between friendly countries in terms of sharing of resources, assets, facilities and bases in the IOR. Towards increasing the cooperation and coordination between these countries, bilateral and multilateral air power exercises could be conducted. The exercises can be undertaken towards enhancing the following capabilities: -
- (a) MARITIME SURVEILLANCE AND ISR. Airborne assets could be utilised to provide Maritime Surveillance and ISR in the IOR. Towards this, manned and unmanned assets of friendly nations can be coordinated for joint operations along with sharing of surveillance data on a regular basis. This would certainly enhance Intelligence collation as well as provide a check against piracy in the IOR. It is needless to say that surveillance by air assets of such a vast expanse of waters would require friendly nations to have a joint plan based on resource sharing and mutual benefit.
 - (b) HUMANITARIAN ASSISTANCE AND DISASTER RELIEF (HADR) MISSIONS. The IOR has faced a number of natural calamities as well as humanitarian crisis arising out of conflicts. Cooperation and preparation towards providing HADR in the region would prove to be extremely beneficial in dealing with any future crisis. A well-planned procedure for HADR oriented exercises could be coordinated and established. Nations participating in HADR exercises could have access to operating from each other's bases in the affected zone. Towards this formal agreements could be jointly formulated and this would greatly improve interoperability amongst the Air Forces in the IOR and common SOPs and charters of responsibilities could be promulgated.
 - (c) SEARCH AND RESCUE (SAR). Search and Rescue through joint operations using air assets as well as surface vessels towards various contingencies could be practiced regularly in multilateral exercises. Such multilateral exercises would ensure that SAR equipment of various air forces become compatible and interoperable. SAR missions are also linked to HADR operations and these air exercises would immensely benefit all participating countries. Such air exercises would bring nations together for a common humanitarian cause, building mutual trust and friendship.

(d) NON-COMBATANT EVACUATION (NCE) MISSIONS. Given the various situations of conflicts in the region like civil unrest in Yemen and even towards the recent Corona virus outbreak, air forces are required to take on large scale evacuation of civil population from far off locations. Thus, frequent exercises and drills simulating contingencies for large scale evacuation missions could be considered and planned jointly by countries in the IOR. Cooperation between various friendly nations would ensure efficient conduct of these missions.

8. MUTUAL UTILISATION OF AIRFIELDS IN IOR. There are a number of airfields in IOR and mutual utilisation of these airfields would enhance the range and reach of air power assets to cover the IOR. During the conduct of exercises, airfields of friendly nations with mutual reciprocation could be utilised. For example, the Cocos Keeling Island and Christmas Island (Australian dependencies) located midway between India and Australia have 8000 and 7000 feet runways respectively and are fit for operations by all kind of aircraft⁹. However such endeavours would require formal agreements between countries. Upgradation of Coastal and Island Airfields at A&N and L&M Islands would also assist in increasing the strategic reach of air power from Malacca Straits to the Gulf of Hormuz.
9. JOINT MULTILATERAL AIR EXERCISE PLATFORMS. Considering all the possible air exercises between air forces in the IOR we could look at increasing air power engagement exercises in the IOR. As the interoperability increases between air forces, we could also consider carrying out exercises with naval ships of other countries along with their air elements during their transit through the region. Towards this, a multilateral platform of IOR nations for joint aerial exercises based on various contingencies could be established. The frequency of exercises and number of participating countries could be decided by a formal committee and area of operations be kept variable so that the entire IOR is covered. Such air force interactions would boost the security paradigm of the IOR significantly and lead to common good of the people, especially during natural disasters.



Cocos and Christmas islands¹⁰

10. Exercises with SE Asian Countries. Countries in the Eastern IOR could be engaged on regular basis on multilateral themes. ASEAN holds a very important place in India's 'Act East' policy. Enhanced engagements between air forces will promote this policy and help in achieving greater trust and cooperation. Singapore, Indonesia and Malaysian air forces have been participating in exercises with the IAF and the frequency could be increased across the entire spectrum of exercises. Other important and friendly countries like Vietnam, Taiwan, Thailand, and Myanmar too could participate in mutually beneficial air exercises. The IOR is prone to Tsunamis and Cyclones and HADR can be main theme of multilateral air exercises. In these air exercises air forces could refine SOPs and rescue drills so that in times of crises the joint response is quick, especially during inclement weather, to save human lives. The multilateral exercise named 'Samvedna' in 2018 was the first composite HADR exercise in the South Asian Region and involved representatives from air forces of Sri Lanka, Bangladesh, Nepal and the UAE.

AGREEMENTS FOR MUTUAL SUPPORT:

Agreement on the line of Logistics Exchange Memorandum of Agreement (LEMOA)/ Mutual Logistics Support Agreement (MLSA) could be initiated with friendly countries in the IOR such as Sri Lanka, Mauritius, Maldives, Indonesia, Malaysia, Seychelles and Oman. Bilateral agreement with the IOR rim nations as well as countries in the Indo Pacific region could be put in place for usage of each other's airfields and facilities by military aircraft. Towards this, the IAF has been undertaking regular bilateral exercises with countries like Singapore Australia Oman and UAE. Building an air-bridge of friendship through air power diplomacy would provide an outreach for all friendly nations in the IOR.

CONCLUSION

Air Power can play a significant role in the IOR due to its inherent characteristics of reach and responsiveness. With cooperation of friendly foreign countries, both located in the IOR and those transiting through it, air power can contribute effectively to ensure safety, security, freedom of navigation and mutual growth for all. While a number of steps have been undertaken for formation of various forums for dialogue and cooperation, Air Power cooperation would certainly go a long way in ensuring stability in the region and at the same time provide response in a quick time frame. These multilateral air exercises would help in establishing SOPs, interoperability of systems and communication protocols. The operational lessons shared and learnt during these exercises would assist in preparing an air power umbrella in the IOR with mutual participation by all stakeholders. It is considered that the time has come for air forces of friendly IOR nations to cooperate and exercise together. This would lead to a secure environment based on mutual respect and cooperation.

COASTAL SURVEILLANCE NETWORK – AN EYE INTO THE SEA

By Deputy Inspector General MM Syed

INTRODUCTION

1. India being a maritime nation has the world's fifth largest coastline of 7516 kms with about 1295 islands. The coastline of India, harbours Nine Coastal States and four Union Territories all of which are clearly at the forefront of exponential growth and development. Three out of the four major metro cities of the country are on the coastline and acting as India's financial nerve centre. Moreover, India's globally admired economy is highly dependent on ocean trade, over 90% of India's trade by volume is through seas. The maritime trade and shipping is flourishing in the country through initiatives such as Blue Economy and Sagarmala. Both initiatives are aimed to provide a major economic boost to the country and the same is possible only when we have a surveillance system which ensures safer coasts and seas.
2. India's strategic Geo-political location in Indian Ocean and growing importance of India in Indo-Pacific Region further provides India an opportunity to be a global economic power in future. Therefore, in such a changing global equation and shifting of economic power from west to east, safeguarding and protection of India's Coastline, Maritime Zones and country's interests within these zones further becomes paramount for the growth and development of the nation.
3. Terrorist attacks like 26/11 on Mumbai, not only lowers the morale of countrymen, but it also has a cascading effect on the economy. Thus protecting India's coastline and maritime interest against such attacks is critically important for Growth and Development of the country.

NECESSITY OF ELECTRONIC SURVEILLANCE

4. With the opportunities there are challenges in ensuring safety of India's vast coastline and its Exclusive Economic Zone (EEZ) which extends up to 200nm from the coast, encompassing an area of

roughly two million Sq kms which is approx 2/3rds of our land mass. The Security of a vast coastline is the prime challenge in the existing multi threat maritime environment. Sea route was utilised by terrorists for landing explosives and hijacking Indian fishing boats during 1993 bomb blasts and infamous attack of 26/11 in Mumbai. Usage of sea route by terrorists for entering into Mumbai laden with weapons and heavy explosives has highlighted vulnerability and the porous nature of our coastline. The attacks of such nature created a necessity to review and strengthen the Coastal Security and Surveillance mechanism.

5. The security of vast Maritime Zones and the huge coastline of India with the help of 24X7 physical presence of Ships and Aircraft is nearly an impossible task. To achieve Situational Awareness Which encompasses identification, monitoring and constant tracking of vessels to prevent any potential threat at sea is also exceedingly difficult by means of physical surveillance. This is because detection of a target out at sea and its identification are difficult especially for small vessels. As the seas are vast, the increasing merchant vessels traffic and fishing activities poses challenges for identification and differentiating friend from foe and from neutrals who by virtue of the right of innocent passage or freedom of navigation, legally use the sea areas of our EEZ and coastal waters. The sea-areas of interest becomes highly opaque in adverse meteorological conditions and therefore detecting a small boat/craft at night in rough seas and in adverse weather conditions is an arduous task.
6. Seas by its very nature are open and unlike land territory it cannot be closed or marked. Since such clear demarcation of seas by boundaries, pillars and flags is not possible, there is always a resistance on the part of the fishermen for entering into a prohibited zone or jurisdiction. As a result of such activities and ethnic similarities with neighbouring countries, it becomes easier for terrorists alike to cross-over these areas with ease. Therefore any of the tens of thousands of vessels that return from sea each day to any point on the long coastline may be a threat vector. In the existing maritime scenario, even if surface and air platforms are heavily deployed for surveillance or monitoring of vast seas, achieving complete situational awareness is near to

impossible. Moreover, such deployment of assets for surveillance is clearly an expensive proposition both in terms of Capital and Operational costs. Hence alternate cost effective methods for maritime surveillance for monitoring vast coastline is a necessity.

GENESIS OF COASTAL SURVEILLANCE NETWORK

7. Kargil Review Committee (KRC) first emphasised on strengthening of Coastal security and accordingly a proposal for setting up of static radar sensor was initiated. Post 26/11 attacks on Mumbai, the Cabinet Committee on Security (CCS) issued various directives to enhance the coastal security, wherein real time intelligence sharing and optimum use of technology by setting up of Coastal Surveillance network was one of the recommendations. Since then there has been a paradigm shift in the maritime security apparatus of India and increased emphasis on electronic surveillance has been provided, and accordingly a pending proposal for setting up of static radar sensors all along the coastline was approved.
8. As part of Coastal Security mechanism, a surveillance system called Coastal Surveillance Network (CSN) comprising of Chain of Static Sensors having Radars, Automatic Identification System (AIS), Electro-Optic Sensors and Met Sensors at 46 locations along the coastline and Islands have been established by the Indian Coast Guard. In order to achieve near gap-free surveillance of the entire coastline, 38 additional Radar Stations and Eight Mobile Surveillance Systems apart from Vessels Traffic Management System (VTMS) connectivity at Gulf of Kutch and Gulf of Khambat, are already approved and are planned to be installed as phase-II in near future. These 38 additional Radar Stations will further ensure near gap free and robust electronic surveillance of the entire coastline including Islands and will certainly strengthen the Coastal Security of India.
9. CSN has a robust networking system for monitoring and providing real time information all along the coastline from entire 46 locations (36 on mainland, six in Lakshadweep Islands and four in A&N Islands) to nearest Remote Operating Stations (ROS) at Coast Guard District Headquarters (CGDHQs). All these ROS are equipped with Multi

Function Displays for monitoring activities at Sea and Very High Frequency (VHF) trans receivers for establishing communication with merchant vessels and fishing boats. ROS are further linked to Coast Guard Regional Headquarters located at Mumbai, Chennai, Gandhi Nagar and Port Blair as Remote operating Centres (ROC) which in turn are connected to a Control Center (CC) at Coast Guard Headquarters (CGHQ) in New Delhi. All these monitoring stations are manned 24X7 by trained Coast Guard personnel and Standard Operating procedures (SOPs) has been established for monitoring and investigation of all contacts at ROS and ROCs. Noting that guarding the Indian coastline is a challenging and herculean task, implementation of the Coastal Surveillance Network (CSN) has enhanced electronic surveillance capability of the Coast Guard and has tremendously improved situational awareness of Indian Coast Guard.

10. Indian Coast Guard also provides feed of the Static Radar Sensors to Information Management and Analysis Centre (IMAC) which has been established by Indian Navy at Gurugram. At IMAC data from various sensors and databases is aggregated, correlated and then disseminated to various stations for enhanced awareness.

CSN AS A TOOL FOR ENSURING COASTAL SAFETY AND SECURITY

11. The Coastal Surveillance network has proven to be Eyes and Ears for the Coast Guard in recent times for enhancing MDA. Personnel manning ROS and ROCs are able to investigate and monitor approx 180 to 200 vessels everyday thereby ensuring safety to seafarers all along Indian Coastline against any kind of threat and mishap. The CSN has been effectively used for warning fishermen during cyclones. Radar Stations have been extensively used for transmitting warning and safety messages on VHF in local languages during cyclones and in adverse weather conditions which has helped in saving precious lives and property.
12. CSN has become an effective tool for coordinating and vectoring ICG ships and aircraft to datum for real time operations at sea. CSN is very efficiently used in relaying information and issuing



guidelines to ships which are involved in real time operations at sea by experienced officials from Headquarters after monitoring and analysing the real time scenario through ROS and ROC. Safety Security of all Coast Guard Ships is remotely monitored during their routine deployments at seas through CSN. In the recent past, CSN has been used during Coastal Security Exercises for increasing efficiency of all stakeholders. Suspicious vessels and Specific areas of interest viz harbour mouth, anchorage point, fish landing point, highly sensitive and high traffic density areas are continuously monitored and tracked by CSN using sensors to avert security lapses on Indian coastline and EEZ. Oil spills and its spread pattern near shores may also be monitored using CSN and necessary action may be initiated by ICG and concerned agencies to avoid a major oil pollution and loss of precious marine life at sea.

COASTAL SURVEILLANCE NETWORK IN IOR

13. Although several measures have been taken to enhance situational awareness and coastal surveillance in Indian waters and its coastline, a similar structure is necessary for Indian Ocean Region (IOR) because in today's interconnected world, security issues in one country have the potential to affect not only its neighbours but the wider region as well. This is especially true in the maritime domain where control of important choke points can severely affect

the economic affairs of a developing country like ours. Therefore Safeguarding merchant traffic and maritime interests of India including enhanced situational awareness of the maritime activities in the entire Indian Ocean Region is also a necessity.

14. In order to achieve real time surveillance, monitoring, tracking and enhanced situational awareness in IOR, India has used collaborative approach with friendly Island Nations through capacity building measures by Setting up similar Coastal Surveillance mechanism having Static Radar Stations with AIS and Electro – optic sensors. The setting up of such surveillance network in Island Nations is in line with India's Island Diplomacy and with the vision of our Hon'ble Prime Minister, Shri Narendra Modi towards Security and Growth of All in the Region (SAGAR).

CONCLUSION

- 15 .In the aftermath of 26/11 Mumbai terror attacks, a lot has been achieved in optimum use of technology and setting up of Coastal Surveillance network to improve coastal security framework and safeguarding Maritime interest of the country. Utilisation of CSN for coastal surveillance has helped in reduced physical deployment of surface and air assets resulting in cost effectiveness by limiting recurring expenditure on maintenance of CG operational assets, fuel and precious man-hours.
16. Exploitation of CSN has helped in providing complete situational awareness of maritime activities to Indian Coast Guard for undertaking more focused and synergised operations at sea. Further, CSN has helped in ensuring navigational safety of vessels out at sea. Data available at ROS/ROC has been used as evidence for deciding responsibility and lapses in cases of maritime incidents. CSN in future may be utilised in filling the connectivity gap between intelligence agencies and security agencies for further strengthening the coastal security of India. Optimum utilisation of CSN has proven to be an eye for Indian Coast Guard into the sea and setting up of another 38 similar stations will further enhance the coastal surveillance, maritime safety and security of India.

A COOPERATIVE APPROACH TO A SAFE, SECURE, AND STABLE MARITIME ENVIRONMENT

By Commander Anand Kumar

“Our goal is to seek a climate of trust and transparency; respect for international maritime rules and norms by all countries; sensitivity to each other’s interests; peaceful resolution of maritime issues; and increase in maritime cooperation”

Shri Narendra Modi - Prime Minister of India

The wellbeing and survival of mankind is intertwined with the surrounding oceans since time immemorial. The Indian Ocean Region (IOR), a region blessed with bountiful natural resources, rich culture of peace, prosperity and thriving intercontinental trade dating back to early civilization has gradually lost its glory and finds itself engulfed with a host of traditional and non-traditional maritime security threats. The region has witnessed many crests and troughs in the course of history and is once again experiencing a dangerous ‘ocean churn’ which if not managed may affect the wellbeing of the entire region.

The ocean acts as a continuum, like an invisible bridge connecting continents, thereby putting eastern African coast in the immediate Neighbourhood of the western American coast. Incidents-good or bad, creates ripple effects across the continents. A safe, secure, and stable maritime environment is, therefore, critical for the regional and global security. ‘VasudhaivaKutumbakam (ancient Indian philosophical underpinning of considering the whole world as a ‘family’) is perhaps most pronounced in the nature of the oceans-common heritage of mankind.

THE COMMON THREAD

India and the Littorals are bound by shared history and common developmental challenges and experiences with similar aspirations. Over decades, both have shared a common understanding over many global issues viz colonialism, neo-colonialism, apartheid, and socio-economic

struggles. Since the beginning of mid-twentieth Century, both India and the littorals have changed significantly, however, the importance of, and for each other remains ever so inviolate. The paper explores the underlying challenges and opportunities for developing a cooperative approach for a safe, secure, and stable maritime environment which can usher the region in a glorious future-mirroring the glorious past, when the region was synonymous with peace, thriving trade and leading light of the human civilization. A peaceful and vibrant region will ensure a holistic maritime space facilitating 'distributive social justice', sustainable development and free, open, and rule-based order at sea.

MAJOR CHALLENGES IN THE REGION

As discussed earlier, the notion of the region with a glorious history of peaceful and well-integrated economic and cultural arena have gradually faded with time, and the present is faced with a plethora of issues ranging from traditional security challenges to non-traditional threats, climate change, weak governance structures and unsustainable exploitation of ocean resources. These issues imperil human security in all its dimensions-affecting basic human rights, breakdown of law and good order, destabilizing governments and in-turn making the entire region susceptible to big power rivalry. Moreover, the COVID-19 pandemic and its attendant consequences have exacerbated the entire situation and calls for even greater and quicker solutions to the issues dodging the region. The challenges faced by the region can be grouped into four major categories: Distributive injustice, Maritime security, inter-state rivalry and Environmental Security.

DISTRIBUTIVE INJUSTICE

Distributive injustice arises from the circumstances wherein, every person is not able to enjoy the same level of material goods (including burdens) and services, and the most disadvantaged people bear, and will continue to bear the consequences of overexploitation of resources. Thereby, negatively affecting the 'Right to Life' and 'Right to Livelihood' guaranteed by 'Article 3' of the Universal Declaration of Human Rights. The national and personal wealth is unevenly distributed across the region, the region hosts five of the G-20 members together with some of the poorest countries of the world. The abundance of youth populace and

poor economies give rise to unrest, violence, instability, and uncertainty in the domestic and political environment.

MARITIME SECURITY

Maritime security in the region has been afflicted with a range of traditional and non-traditional security challenges, largely coming from the seas. The issues range from insurgent conflict, trans-national crimes like terrorism, piracy, maritime based illicit trafficking of drug, arms, and human trafficking coupled with political instability in many of the States. Maritime crimes have a destabilising effect, weakening the State's authority and undermining the chances for sustainable development and economic growth in the region. Maritime security concerns generate the need for a cooperative approach to deal with non-traditional security risks that are beyond the capability and mandate of any single nation-state or collective entity to address.¹

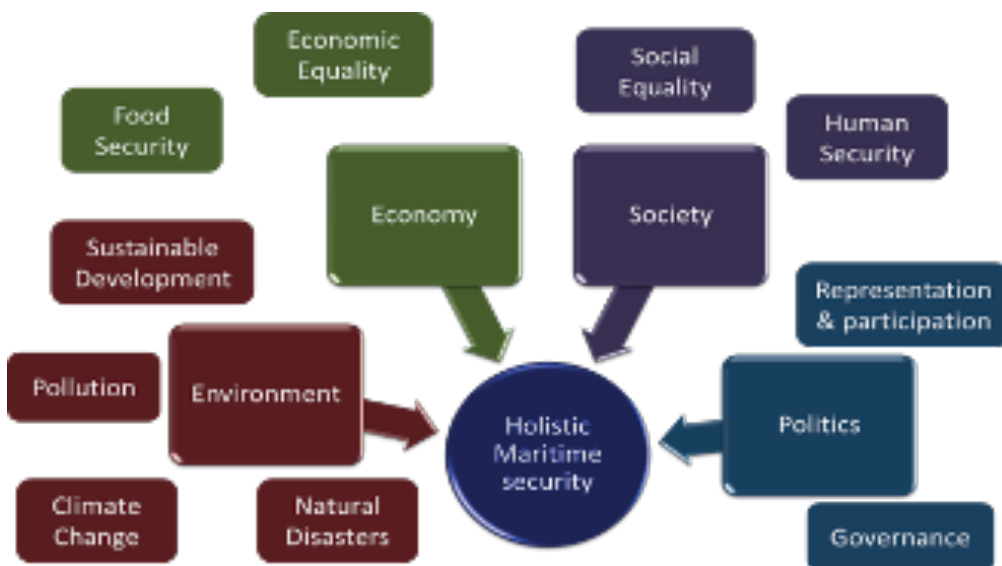


Fig 1: Elements of Holistic Maritime Security. (Source-Author)

INTER-STATE RIVALRY

Inter-State competition in the maritime domain owing to lack of political will and understanding of legal rights and responsibilities (of the law of the Sea), are resulting in overexploitation, and surrendering of legitimate control of the State's EEZ to the extra regional players by way of licensing agreements for fishing and tacit approval for waste dumping at sea.

¹ Lee Cordner (2014) Indian Ocean Maritime Security Cooperation needs coherent Indian leadership, Journal of Defence Studies, Vol. 8, No. 3, July-September 2014, pp. 31-56.

ENVIRONMENTAL SECURITY

Environmental security incorporates the steps taken to minimise the likely threats to the society, and the economic wellbeing of the country from threats that might arise as a direct or indirect consequence of natural disasters or resource scarcity (for instance potable water scarcity). These environmental security issues, if not addressed, will lead to increase in human conflict and, may result in wide scales spread of disease, poverty, and death. The region is already witnessing the effects of climate change resulting in increased severity and frequency of cyclones, extreme heat waves and storm surges. Another important aspect is of the rise in marine pollution and navigational accidents. Apart from creating a disaster for the marine ecology-they also can affect the free flow of trade and shipping. Ports and areas affected by such incidents must be bypassed by ships-leading to economic losses by the shipping companies.²

THE RAISONS D'ÊTRE

In depth analysis of the above issues bears the following salient aspects: -

- SHARED DESTINY. Majority of regional (and extra-regional) actors share the universal objectives of economic and social development, environmental wellbeing, territorial integrity, and comprehensive maritime security. The risks to these objectives are being shared to varying degrees and many common vulnerabilities transcend national borders through the maritime domain. In a way the entire region shares a common destiny.
- SEA BLINDNESS. Many of the littorals ignore the importance of sea into public policy and governance paradigm. The region has a noticeably young population, relatively poor economy, rampant unemployment coupled with abject apathy towards coastal communities. A combination of these factors is proving to be fertile ground for social unrest.
- MONITORING, CONTROL AND SURVEILLANCE (MCS) APPARATUS. The littorals lack strong MCS capacity and capabilities, which has led to near absence of an effective and coherent Maritime Domain Awareness (MDA) in the region.

² Dr PK Ghosh, Maritime Challenges in Indian Ocean Region – Indian Response Strategies and Cooperative Approaches, pp.4-5.

- LIMITED LAW ENFORCEMENT CAPACITY AND CAPABILITY. Most of the littorals possess limited investigative and forensic capacities (in terms of skills, expertise, staff, and equipment) to proactively and efficiently investigate and adjudicate maritime crimes. The failure to prevent or punish maritime crimes means the sea is becoming a place where risk is low and reward is great.³ The organized criminal groups behind these maritime crimes are operating in an increasingly sophisticated manner, exploiting jurisdictional and law enforcement gaps and weaknesses.
- NON-EXISTENT SECURITY APPARATUS. The existing security arrangement in the region is characterised by lack of a functional region wide security regime, weak subregional security apparatus and greater reliance on bilateral rather multilateral commitments.⁴
- THE DEBT-TRAP DIPLOMACY. The littorals are being lured into debt-trap diplomacy in the garb of infrastructure development and there seems no let up to that.

A COOPERATIVE APPROACH: THE RUNWAY TO A BILLION OPPORTUNITIES

The COVID-19 pandemic and its devastating consequences have accelerated the need to forge a meaningful and sustainable plurilateral/multilateral cooperation. India is in a unique position to take a lead role in advocating and upholding the ideals of ‘distributive justice’, ‘maritime security’, environmental security’ and rule-based order at sea’ that facilitates ‘Security and Growth to All in the Region’ (SAGAR). Based on the detailed analysis of the challenges afflicting the region and their drivers, it is recommended to develop a cooperative framework of ‘Community Led Whole of Government Approach’ amalgamating the vision of SAGAR and the seven pillars of IPOI. The proposed cooperative approach is enumerated below: -

- Plurilateral/ Multilateral Cooperation. Promotion of open, non-treaty-based plurilateral/ multilateral cooperation against non-traditional

³ Action document for Critical maritime Routes Law Enforcement Agencies Phase III (CRIMLEA III) <<https://ec.europa.eu/transparency/regdoc/rep/3/2020/EN/C-2020-5016-F1-EN-ANNEX-3-PART-1.PDF>> accessed 18 Dec 2020.

⁴ Lee Cordner (2014) Indian Ocean Maritime Security Cooperation needs coherent Indian leadership, Journal of Defence Studies, Vol. 8, No. 3, July-September 2014, pp. 31-56.



*Fig 2: Indian Navy deployed in Anti-piracy Operation, somewhere in Gulf of Aden.
(Source-Livefirstdefence.com)*

security threats, including transnational crimes, piracy, drugs and weapons smuggling, human trafficking.

- Indian experience of deployment of naval assets for maritime security and anti-piracy operations in the Western Indian Ocean and Gulf of Aden since 2008 and Gulf of Oman since 2019 may be utilised to develop coherent security structures based on equity and mutual respect.
- The Indian Navy and Coast Guard may participate in plurilateral and bilateral exercises to promote maritime safety and security in the region and simultaneously develop requisite confidence, achieve interoperability, and evolve common SOPs. Indian Navy's world class Hydrographic survey expertise may be utilised by offering hydrographic survey and making nautical charts for the littorals of the region.
- Defence Capacity Building. Defence industry co-operation to enhance the maritime defence capacity of the littorals. Indian shipbuilding industry has matured to a level where it can build complex ships, ranging from the Aircraft carrier to Fast Interceptor Boats (FIBs) and submarines ranging from Nuclear powered to conventional ones.



Fig 3: Indian Coast Guard offshore patrol Vessel, built by M/s Goa Shipyard Limited



Fig 4: Indian Navy ASW Corvette, built by M/s Garden Reach Shipbuilders and Engineers, Kolkata

- The Indian shipbuilding industry may be encouraged to proactively market their cost effective and world class products among the littorals.
- Maritime Domain Awareness. Holistic maritime security in the region can be enhanced multi-fold by improving the Maritime Domain Awareness (MDA) in the region.
 - The Indian Navy’s Information Fusion Centre-Indian Ocean Region (IFC-IOR) provides a holistic picture of the entire Indian Ocean and facilitates exchange of information among countries in the IOR to create a common MDA picture on a real-time basis.
 - The centre coordinates and facilitates exchange of information
 - with its partner nations and stakeholders in incidents of piracy, illegal fishing, drug smuggling, human trafficking, maritime terrorism, environmental hazards, and natural disasters, among other things.⁵
- HADR and Marine Pollution Response. The emerging concept of India as a “first responder” reflects the country’s growing capability and increasing willingness to assume the role of the ‘first responder’ in the region. By contributing its resources to prevent and mitigate regional and international crises, India is demonstrating its commitment as a responsible actor in the international order.
 - After the 2004 Tsunami, India deployed 14 Navy vessels, nearly 1,000 military personnel and several dozen helicopters and airplanes to Sri Lanka. In 2007, in the aftermath of cyclone Sidr, India was one of the few countries to provide relief to Myanmar

⁵ MsDarshana M. Baruah, India in the Indo-Pacific: New Delhi’s Theater of Opportunity, Carnegie Endowment for International Peace, June 2020



Fig 5: Coastal Security Workshop for BIMSTIC member Countries at IFC-IOR, 2019

and provided critical rice supplies to address food emergencies. In 2014, the Indian Navy was the first to arrive in the Maldives to provide fresh drinking water to more than 1,50,000 of its citizens facing an acute supply crisis.⁶ Providing Covid relief to Maldives, Mauritius, Madagascar, Comoros and Seychelle, as also to the Pacific Islands by the Indian Navy Ships is the latest in that line. Most recently, the Indian Coast Guard (ICG) deputed a 10-member specialist pollution response team along with pollution response equipment (30 tons of technical equipment and materials onboard C-17 Globemaster of the Indian Air Force) to Mauritius for supplementing international effort to contain oil spill from bulk carrier MV Wakashio. India is also the lead country in the creation of Coalition for Disaster Resilient Infrastructure (CDRI), announced by Prime Minister Shri Narendra Modi at the 2019 UN Climate Action Summit. India has also taken the lead in evolving common guidelines on HADR and common SOPs for Search and Rescue in the Indo-Pacific Region. India is currently finalising the guidelines on HADR cooperation within IORA and is working on evolving similar guidelines within the East Asia Summit.⁷

6 MEA, Responding First as a Leading Power <https://mea.gov.in/Portal/IndiaArticleAll/636548962666860480_Responding_First_Leading_Power.pdf> accessed 18 Dec 2020.

7 EAM's remarks at CII Partnership Summit 2020, 17 Dec 2020.



Fig 6: Operation 'Sagar'-COVID relief Operation. (Source-Author)



Fig 6: ICG's 10-member team to contain Oil spill from MV Wakashio off Mauritius Coast



Fig 6: The Defence Minister gifts two Fast Interceptor Boats to Mozambique

- Capacity Enhancement of Law Enforcement Agencies. The overall objective of this cooperative initiative is to enhance the capacity and capability of the law enforcement agencies by providing Fast Interceptor Boats (FIBs), Off-shore Patrol Vessels (OPVs) and imparting training to the national law enforcing agencies and other agencies (with a law enforcement function) involved in combating organized crimes.
 - In July 2019, India gifted 44 SUVs and two Fast Interceptor Boats (FIBs), during the Indian Defense Minister Shri Rajnath Singh's visit to Mozambique.⁸
- Training of Maritime Forces and Law Enforcement Agencies. The littorals of the region are at different stages of their development and therefore their capacity and the resulting needs vary from one State

8 Dr Jagannath Panda, India's "Africa Adventure" in the Indian Ocean Commission, Fletcher Security Review, 2020 Edition, Vol.7 No. 1.

to another. Some States require for instance more capacity building in terms of provisioning of ships and patrol vessels whilst others require training in the basic investigation skills, law enforcement action at sea (both equipment and techniques).

- Currently India is involved in anti-piracy patrols and training of Mozambique defense and intelligence personnel.⁹ The Indian Navy's and Coast Guard's Veteran community may be called upon to impart training and cross-fertilization of Standard Operating Procedures (SOPs), best practices, and establish training units at respective countries (this will be cost effective and will help build trust among the local communities).
- Sustainable Development of Marine Resources. This is one of the focus areas of SDG-14 and India has taken a lead in this field. This involves sustainable management of fish stocks, preservation of species diversity, action to combat Illegal, Unreported and Unregulated (IUU) fishing, conservation of Marine Protected Areas (MPA).
 - India and the littorals of the region can collaborate and form a joint team towards the formulation of an International legally binding instrument under the United Nations convention on the Law of the Sea on the conservation and sustainable use of marine Biological diversity of areas Beyond National Jurisdiction (BBNJ) and in Areas Beyond National Jurisdiction (ABNJ).
- Coastal Community Development Programme. Community development is the engine of human development, and so is the case with coastal community as well. Coastal community capacity development programmes aim to empower individuals, organisations and societies to achieve and maintain the ability to decide and achieve their own development objectives over time.
 - India can take a lead role in designing and providing tailor made community development and skill development programmes akin to the existing United Nations development Programme (UNDP) to the littorals of the region.

⁹ Dr Jagannath Panda, India's "Africa Adventure" in the Indian Ocean Commission, Fletcher Security Review, 2020 Edition, Vol.7 No.1

- Training Modules for the Law of the Sea. Training modules for enhancing knowledge pertaining to the key aspects of the law of the Sea may be developed for the policy makers and the academia to develop critical mass for effective advocacy of 'open and rule-based order at sea' at various national and international forums.
- India is well equipped to provide quality resource personnel with substantial experience in the field of Public International Law.



Fig 7: Proposed Cooperative approach to a safe, secure, and stable maritime environment. Source-Author

CONCLUSION

The Indian defence forces, including the Navy, have evolved into a capable, professional, and dependable force with considerable experience in multinational operations. India is willing, and can be instrumental, particularly in the maritime domain, by developing mutually beneficial structures, providing maritime-military aid and assistance, capacity building, joint naval exercises, EEZ patrolling, logistics, intelligence sharing and naval training, thereby, strengthening the spirit of cooperation and shared destiny.

ABOUT THE AUTHOR

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IMPORTANCE OF THE IAF IN THE IOR

By Wing Commander Vikas Kalyani

History has proven that the oceans have always carved the path of all civilisations. The Indian Ocean has been and will remain a source of potential growth, not only for India but for all countries in the Indian Ocean Region (IOR) and many more beyond the region. Preservation of a rule-based order and free movement of goods and vessels in the global commons gains significance in this strategic domain. India, in partnership with other oceanic neighbours, bears the responsibility to keep the IOR as safe and secure as possible.

To achieve the goal of ensuring security and mutual growth, India has always projected and cultivated a well-rounded relationship with its neighbours as well as with countries beyond the IOR. The Armed Forces of India have a major role to play in this holistic outreach and form an important component in projecting India's foreign policy on the world stage. The range, nature of exchanges, increased frequency, strengthening older associations and fresh interactions with other nations are gaining significance as part of military diplomacy. All the three services either individually or collectively are strengthening India's role as a peaceful and responsible nation. Along with various types of defence cooperation, international exercises with the defence forces of like-minded countries have enhanced India's military diplomacy on a global platform.

The exercises by India's armed forces underscore the mutual interests by enhancing understanding, cooperation and interoperability both bilaterally and multilaterally. The exercises provide the participating militaries with an opportunity to expand cooperation in training, understanding, capacity building and imbibing current technologies, showcasing military hardware and software, building relationships and incorporating best practices. India's enhanced international interaction in the form of military exercises can be understood with the help of a few charts and figures. Partner countries for international military exercises that India conducted or was part of, from 2012 onwards are depicted in

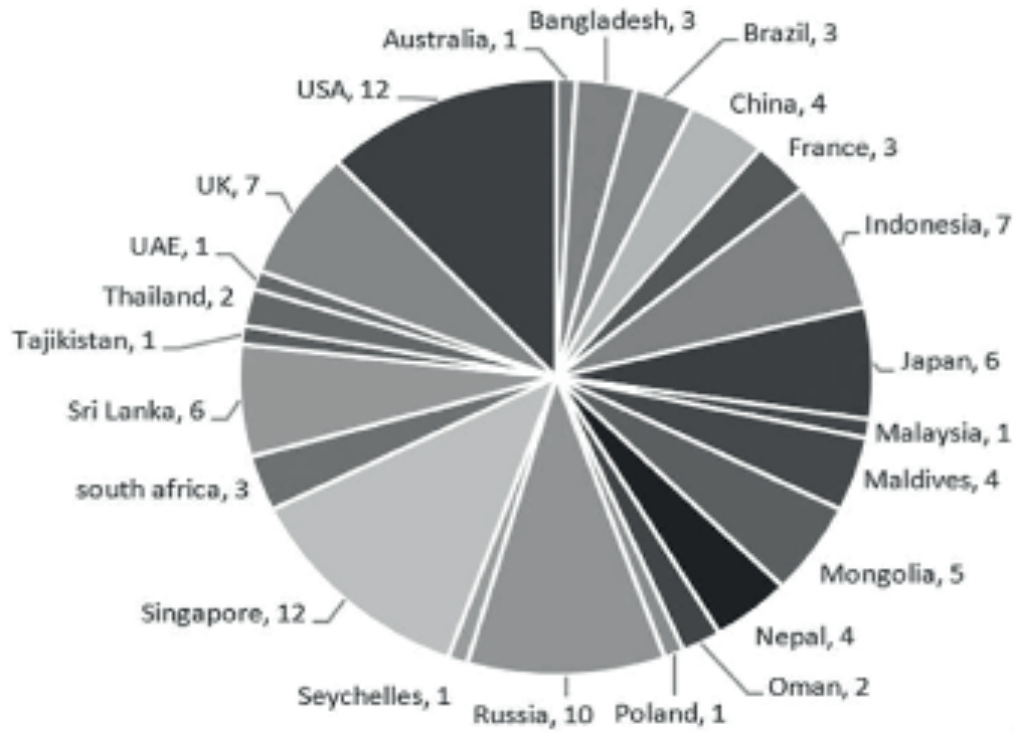


Figure 1 Depicting Countries Engaged by the Indian Defence Forces in Military Exercises since 2012 along with Frequency Source: Ministry of Defence, Annual Reports (2011-12 to 2015-16).

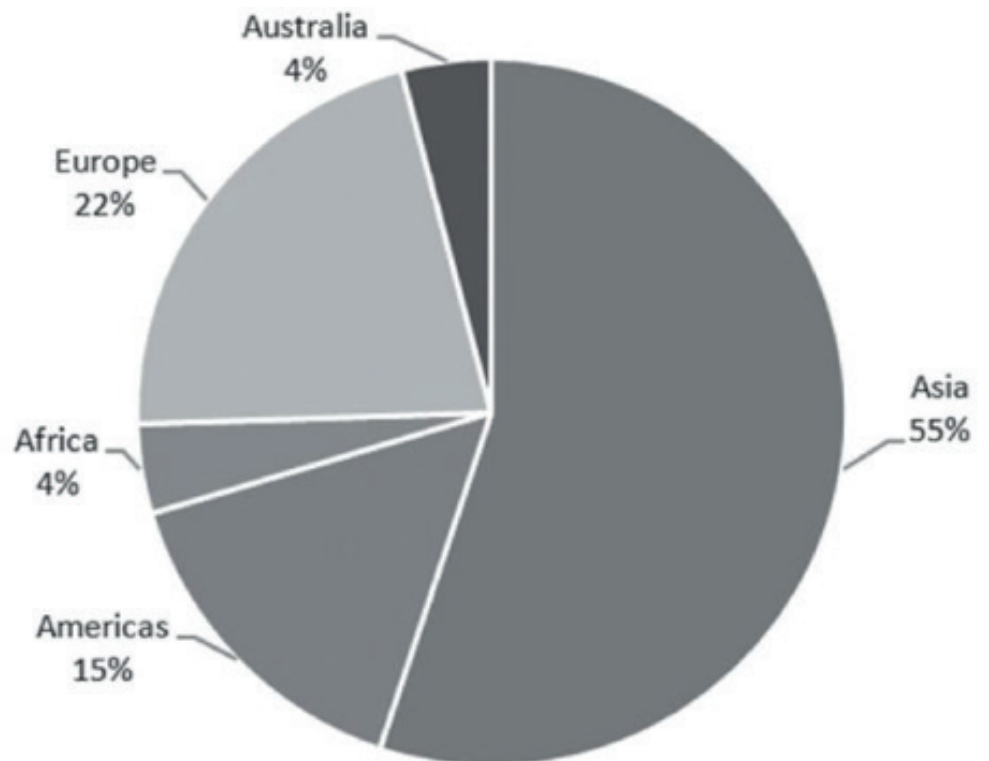


Figure 2 Continent-wise Share of International Military Exercises by India since 2012 Source: Ministry of Defence, Annual Reports (2011-12 to 2015-16).

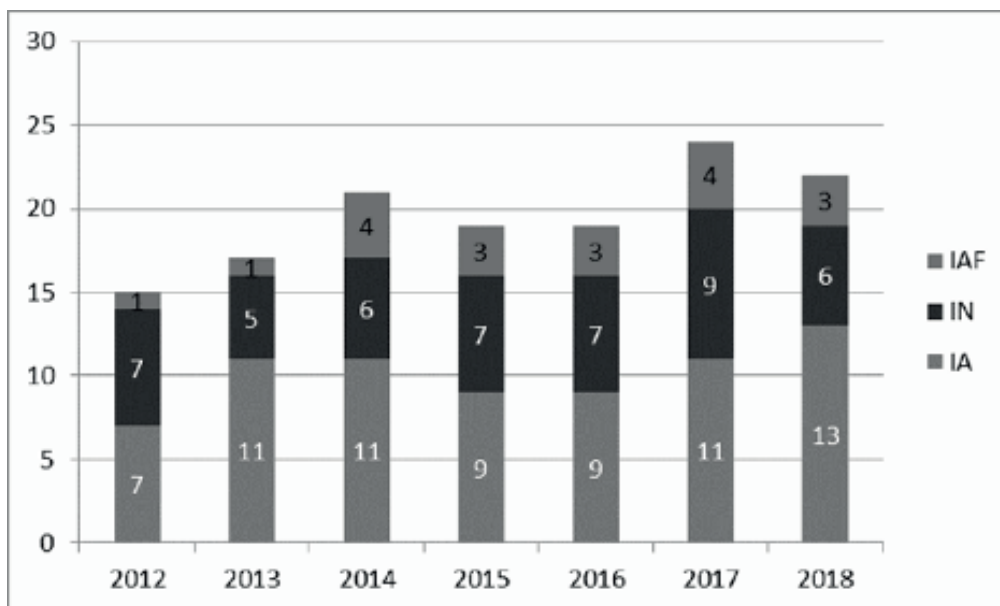


Figure 3 Depicting Year-wise Share of the Three Services in Participation in International Military Exercises since 2012 Source: Ministry of Defence, Annual Reports (2011-12 to 2015-16) and Year End Review- 2017, 2018: Ministry of Defence, Press Information Bureau

Singapore and the US head the list with 12 engagements each from 2012 to 2016 amongst the list of 23 countries in this category.

The Indian policy of engagement through defence exercises with neighbours is depicted in Figure 2, which indicates 55 per cent share for Asian countries in international military exercises.ⁱⁱ It brings out the fact that while Indian forces are engaging countries across all continents it is equally paying attention to countries in neighbourhood.

A look at the participation ratio of the three services from 2012 to 2018 brings out that the Indian Army is, on an average, participating in 10 international exercises annually; the Indian Navy in seven exercises besides PASSEX; and IAF averages three to four per year as depicted in Figure 3.

EXERCISES IN YEAR 2019

The Indian Armed Forces participated in or conducted maximum international exercises in 2019. According to a report from a Delhi based think tank, the Indian military participated in 32 bilateral and five multilateral exercises.^{iv} In these 32 bilateral exercises (10 with IOR countries), participation from Army, Navy and IAF was 18, 9 and 3 respectively whereas two were tri-service exercises.

INTERNATIONAL EXERCISES BY THE IAF

The IAF has come a long way after its first international exercise with participation of fighter aircraft, Exercise Garuda-I with France, in India in 2003. Other exercises in various formats have also been conducted since then. These include: Exercise Cope Thunder, later renamed Exercise Red Flag (Alaska), Exercise Red Flag (Nellis) and Exercise Cope India (with the USA since 2004); Exercise Golden Eagle (with South Africa since 2004); Exercise Indra Dhanush (with the UK since 2006); Exercise Desert Eagle (with the UAE since 2008); Exercise Eastern Bridge (with Oman since 2008); Joint Military Training (JMT) (with Singapore since 2007); Exercise AviaIndra (with Russia since 2014); and Exercise Siam Bharat (with Thailand since 2016). In 2018, for first time the IAF participated with its fighter aircraft in Exercise Pitch Black (Australia) as well.

EXPOSURE OF THE IAF IN THE IOR

Indian government has increased the engagement in the IOR and Indo Pacific bilaterally and multilaterally in the last few years, focused on capacity building and capability enhancement of neighbouring countries in the IOR. The IAF has engaged with IOR countries like Australia, Indonesia, Israel, Malaysia, Oman, South Africa, Singapore, Thailand and UAE; and there are plans to engage with more countries of this region and beyond. The IAF also has interacted with Japanese Air Self Defence Forces (JASDF) in exercise Shinyuu Maitri in 2019 which involved C-130 aircraft of both the forces. The recent visit of the Chief of JASDF and his meeting with Chief of the Air Staff, IAF indicates greater cooperation between the two forces in near future. Other than air exercises, IAF contingents from other branches like GARUDS (special forces) have participated in international exercises with many countries.

The multilateral exercise named 'Samvedna' in 2018 was the first composite HADR exercise in the South Asian Region and involved representatives from air forces of Sri Lanka, Bangladesh, Nepal and the UAE. This exercise was spearheaded by the IAF as the first step by air forces of the region to practice and evolve a joint Humanitarian Assistance and Disaster Relief (HADR) capability.

The Multilateral exercise was organised by the Southern Air Command of IAF. It showcased the disaster preparedness of IAF's Rapid Action Medical

Team (RAMT) as well, which was equipped with modern 25 bedded transportable tent based Medical Shelters which include ICU, Operation Theatre, X-Ray and Laboratory.vii The aim was to help in putting in place a basic framework for conducting joint Air HADR operations, which will be further refined by subsequent exercises.

ROLE OF THE IAF DURING DISTRESS SITUATIONS

The role of the IAF has been distinctive in all kinds of operations because of its efficiency to respond fast along with its inherent characteristics of range, mobility and flexibility. Other than countless rescue missions within the country, many nations have benefitted from the HADR and Non Combatant Evacuation (NCE) mission capabilities of the IAF. The successful evacuation of 111,711 Indian citizens from Iraq, Kuwait, and Jordan in 1990 by operating 488 refugee flights over a period of 59 days by Air India and IAF has been a world record. Similar missions were carried out from Lebanon in 2006 (Operation Sukoon) and in Libya in 2011. The Indian Air Force (IAF) also carried out 'Operation Rahat' (Yemen Evacuation 2015), when Yemen faced a civil war situation in 2015.

Since the outbreak of the Covid-19 pandemic, the IAF has been tasked by the Indian government to provide assistance to neighbouring countries as well as supply medicines and medical equipment within the country. One of the first steps taken by India was to evacuate citizens of different countries along with its own citizens from Wuhan, China, the epicentre of the first COVID-19 outbreak. Those evacuated by Air India and the IAF as compassionate cases included citizens from IOR countries such as Bangladesh, Madagascar, Maldives, Myanmar and South Africa. India not only evacuated these people, but also quarantined them in India (even at IAF bases) as a precautionary measure before sending them to their respective countries.

India has sent medical help to many countries including Mauritius, Seychelles, Maldives, Nepal, Iran, Malaysia and Myanmar. In this war against Corona, the 'air warriors' of the IAF have been at the forefront extending continuous support to the nation and other countries, immaterial of the dangers they face themselves from this pandemic

SCOPE OF ENHANCED ENGAGEMENT

The Indian defence forces are not mandated to be relief providers but when the situation demands, they are proficient to perform such tasks. This requires joint planning to use mutually complementing attributes of each service to overcome a situation. The unique attribute of swift response through the medium of air makes the air force best suited for some situations. For example, in case of natural disaster in any nearby IOR nation, rescue teams of Indian Army or National Disaster Relief Force (NDRF) can be dispatched in a much shorter time by IAF's C-17 aircraft along with relief material. These aircraft can also evacuate people who are in urgent need of medical help followed by quick re-supplies. The Indian Navy ships can follow the HADR assistance subsequently and provide further help. The capability of the IAF to be the first responder in such situations is proven and effective. Inter service exercises based on HADR and evacuation themes have the potential for expansion and exchange with neighbouring countries.

The theme may be used as a base of other air force to air force exercises in the region like it was in Ex Samvedna. With more such exercises on bi-lateral or multilateral basis, participating countries with mutual interests can look into using air and space assets to do tasks of air patrolling, surveillance of the EEZs, HADR operations, protection against piracy, hijacking, appropriate actions against sea borne identified threats, providing immediate medical assistance etc. This will insure assistance in any eventuality which can ultimately be a threat to peace and growth of the IOR.

CONCLUSION

Participation of the IAF in international air exercises assumes importance in view of the continued engagement with friendly foreign countries especially in its Area of Responsibility (AOR). All these practices will help in area familiarisation, air space familiarisation and procedure familiarisation and thus enhance air force to air force relations. The technical capabilities possessed by the IAF in terms of surveillance aircraft and radars as well as integrated communication systems are other force multipliers to enhance overall security dimension in the IOR. The ISR

assets including space capabilities of India can be used to ensure safety of the IOR. The operational lessons shared and learnt by IAF during these exercises will assist not only the IAF in adding teeth to its overall defence capabilities and assist in improving interoperability with friendly forces but iKhera also helps in preparing an air power umbrella in the IOR with mutual participation by other stakeholders. By enhancing air power practices amongst the nations of the region, the aim of creating a secure environment around Indian maritime domain as well as around other friendly IOR nations can be achieved.

ABOUT THE AUTHOR

Wing Commander Vikas Kalyani is Visiting Senior Research Fellow at India Foundation. His area of research is defence and strategic studies and international relations. He is currently studying the relations between India and IOR countries.

NOTES

1. Khera Kishore Kumar, 'International Military Exercises: An Indian Perspective', *Journal of Defence Studies*, Vol. 11, No. 3 July-September 2017, pp. 17-40.
2. Ibid.
3. Ibid, p. 28.
4. India's Military Bilateral & Multilateral Exercises in 2019 – A Compendium, VIF, <https://www.vifindia.org/sites/default/files/India-s-Military-Bilateral-and-Multilateral-Exercises-in-2019.pdf>
5. Khera, Op. cit., p. 26.
6. PIB, Joint Military Exercises, <https://pib.gov.in/Pressreleaseshare.aspx?PRID=1539020>
7. Business Standard, 16 Mar 2018, 'Multilateral air exercise concludes', https://www.business-standard.com/article/pti-stories/multilateral-air-exercise-concludes-118031601046_1.html accessed on 15 Dec 2020



INDIAN NAVY: DELIVERING MARITIME SECURITY AND CONTRIBUTING TO NATION-BUILDING

By Commodore Susheel Menon

The use of oceans, seas and waterways is as old as human existence itself. They have been the medium through which humanity, culture, ideas and trade have travelled across the globe. This would not be a counterintuitive idea given that two-third of the globe is covered with water. It is said that while borders on land divide, the oceans of the world unite. This quality of the oceans brings great significance to all nations, more so to a maritime nation such as ours.

The history of the world is replete with examples of seafaring and maritime nations that progressed and gained ascendancy by powering their national progress through the oceans. It was in the late 19th-early 20th century that Alfred Thayer Mahan (1840 – 1914) articulated the concept of the 'maritime virtuous cycle'. This comprised three variables: industrial and agricultural production; merchant and naval; and markets. The maritime virtuous cycle operates within these elements with the merchant marine carrying goods to and from trading nations, creating national wealth and engendering national prosperity. As trade expands, the prosperous nation funds and maintains a naval force, which in turn ensures and protects national commerce.

The basic tenets of the maritime virtuous cycle have not changed in the hundred years since it was postulated. However, the maritime environment is very different today. As oceans facilitate access and create the global commons for humanity, being unregulated and unowned they also become the medium of source for threats to national security and prosperity. Historically, this has been well documented – be it the arrival of the Portuguese in the Indian ocean in the late 15th century or the ensuing loss of control of our oceans for the next three hundred years to the present day, when our coastal cities remain vulnerable to a few marauders in a small boat, albeit with support from inimical nations.



With the articulation of the maritime vision of India as SAGAR – Security and Growth for All in the Region – our maritime awakening is indeed well on its way. While we move outwards from our coast to reach out to our maritime neighbours, as we have done for many centuries before colonial rule, the spectrum of challenges our nation faces from the sea has also multiplied.

The Navy Day is celebrated every year on 4 December to commemorate the pivotal role of the Navy in the 1971 war with Pakistan. While this is the commemoration of a military victory at sea, the Navy is and must be seen as much more than a security force. It is a force for nation-building and contributes to strengthening our nation in many ways, in addition to providing a safe and secure maritime environment for the socio-economic prosperity of our citizens.

Often repeated facts about our maritime domain are that India has a coastline of about 7,500 km with more than 1,100 islands and an Exclusive Economic Zone (EEZ) of over 2 million sq km with a vast seabed area that is rich in resources. Over 97 percent of our national trade is carried by

sea routes –this in itself calls for a modern, mission-capable and forward-deployed Navy.

The manner in which the Navy contributes to both the hard and soft power of our nation is best understood by an examination of the various roles of the Navy. In simple terms, the Indian Navy, and indeed most navies of the world, have four predominant roles: Military, Diplomatic, Constabulary and Benign. While the military role is easily seen and understood, the latter three roles are as important and are a significant measure of national power.

It is said that it takes a lifetime to build a Navy. And our naval planners have always created a force structure keeping in mind the roles the Navy will be called upon to perform in service to the nation. Today, the Indian Navy is the preeminent element of our national diplomatic outreach in the Indo-Pacific Region, enabling and supporting the amalgamation of like-minded nations facilitating a convergence of ideas on maritime security and national prosperity. With regard to the constabulary role, the Indian Navy is the agency tasked with coordinating national coastal defence and has also been at the forefront of providing constabulary support to our friendly maritime nations through coordinated patrols and EEZ patrols, on request. Thus, not only does the Navy keep our own maritime environment safe, it also extends the umbrella of security to other maritime nations.

The benign role of the Navy has been in the news in the recent past, with Operation Samudra Setu, bringing home many thousands of our stranded citizens when the world was in lockdown as the pandemic raged incessantly. With Operation Sagar, the Navy also reached out as a nation to maritime neighbours and extended a helping hand to their own national efforts in dealing with the COVID-19 pandemic. The Navy's will, cooperative posture and national outreach have earned the nation and the Navy the rightful sobriquets of 'Preferred Security Partner' and 'First Responder' in our maritime neighbourhood.

The contribution of the Indian Navy in nation-building can be expressed in more tangible terms too. The Navy today is a force comprising over 90,000 men and women in uniform and supporting staff. The Indian Navy,

therefore, provides the opportunity to our citizens to serve the nation with pride, thus creating generations of skilled and disciplined men and women who continue to maintain and uphold high professional and moral ideals that reflect the ethos of the Navy.

As mentioned earlier, it takes a lifetime to build a Navy and this where the Indian Navy has been a most significant contributor to nation-building through shipbuilding. Even a cursory look at the maritime nations in the world will reveal that shipbuilding is the backbone of a nation's maritime strength. This significance did not escape our naval planners who have, since Independence, focussed on indigenous shipbuilding to build our navy. Today, the Indian Navy is proud to be a 'builder's navy' rather than a 'buyer's navy'. The link of shipbuilding with nation-building is not as tenuous as would be believed. As a fully mission-capable navy, the Navy's shipbuilding efforts are focussed on indigenous shipbuilders. More than 60 percent of the Navy's budget is reserved for creation of assets and almost 70 percent of this is spent on indigenous shipbuilders – who in turn create an ecosystem of smaller industrial enterprises. Thus, the Indian Navy's focus on indigenous shipbuilding spurs economic growth, engenders industrial skilling and creates strategic outcomes by sharing shipbuilding capacity with our friendly maritime neighbours.

The Indian Navy comprises a patriotic, motivated and capable cross-section of our nation's youth and is cognisant of the nation's faith in the Service. The investment of national resources in the Navy is significant and the Navy remains committed to plough back this investment to the maximum extent to the nation. The Indian Navy stands prepared and willing to rise to the nation's defence no matter the cost, and to deliver help and support to our citizens across our entire maritime domain. While the oceans span outwards from our shores, the Navy not only keeps a firm eye on the maritime environment but has always been ready and willing to contribute to nation-building in the aftermath of calamities.

On the occasion of Navy Day 2020, the Indian Navy rededicates itself to the service of the nation and I conclude with the Vedic expression 'Sha No Varunah' – may the Lord of the Seas be auspicious unto us – a reminder of our rich maritime heritage.

OCEAN PEACE-KEEPING THROUGH COLLABORATIVE APPROACH : NEED FOR REGIONAL COOPERATION IN IOR

By Deputy Inspector General Yogender Dhaka

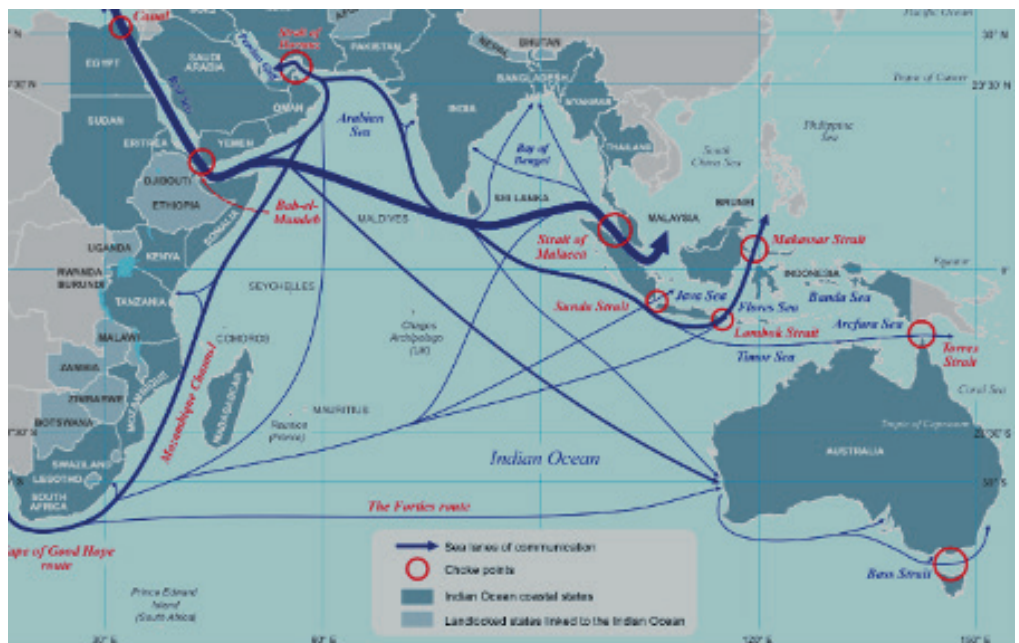
INTRODUCTION

1. The well-being of mankind is organically imbibed with that of its oceans. Global economy, rapid and frequent travel, international cooperation and a world of precious resources, are made possible and sustainable only by the oceans. The marine ecology which has awed and nurtured us for ages and opened up new vistas of growth and opportunities for mankind is under threat today. The intensified pressure from a growing population, implication of climate change and advances in technology and pressures on this pristine and plentiful natural resource, has led to its overdrawn and exploitation. Added to this is the international competition for claiming the limited resources leading to regional tensions, latent aggression, illegal trade and in humanitarian conduct.
2. United Nations Convention on the Law of the Sea (UNCLOS), a result of long term engagement of the UN, concluded in 1982 and replaced the Vienna Convention, 1958. Conceived and wielded as an entailing initiative to ensure the essence of UNCLOS, Ocean Peace-Keeping (OPK) is essentially preventive in nature, emphasising not only a judicious and sustainable use of marine resources to maintain "Safe, Secure and Clean" marine environment by the member countries but also avoiding and averting any armed conflict by encouraging regional cooperation and support amongst nations. India's OPK initiatives derive their strength from UNCLOS for commitment towards free, open and secure IOR through a cooperative and consultative framework.
3. This article aims to provide a glimpse of the existing state of affairs in the IOR vis-à-vis OPK by talking about India's and especially Indian Coast Guard's efforts towards OPK to navigate the IOR into a

peaceful and collaborative future. It will talk about the initiatives and policies that India has employed to display its commitment to OPK with some examples from the ICG's supporting work with the littoral nations and other allies as well as enumerate certain challenges in the way of meeting the cause. As a way towards strengthening these efforts and bringing in improvements in this direction, the article will make a number of helpful suggestions.

INDIAN OCEAN REGION OVERVIEW

4. Indian Ocean Region (IOR) is a wide maritime region, engaging interests of countries like India, Japan, France, United States, Australia, Indonesia and South Africa. The emergence of IOR as a geopolitical hotbed and recent advances by China (String of Pearls, CPEC) in India's peninsular seas and the vulnerability posed by the Choke points⁶ (Panama Canal, the Turkish Straits, Bab-el-Mandeb Strait, the Suez Canal and the Straits of Malacca and Hormuz) necessitates India's constructive involvement with the Regional



SLOCs and Choke Points in IOR Region

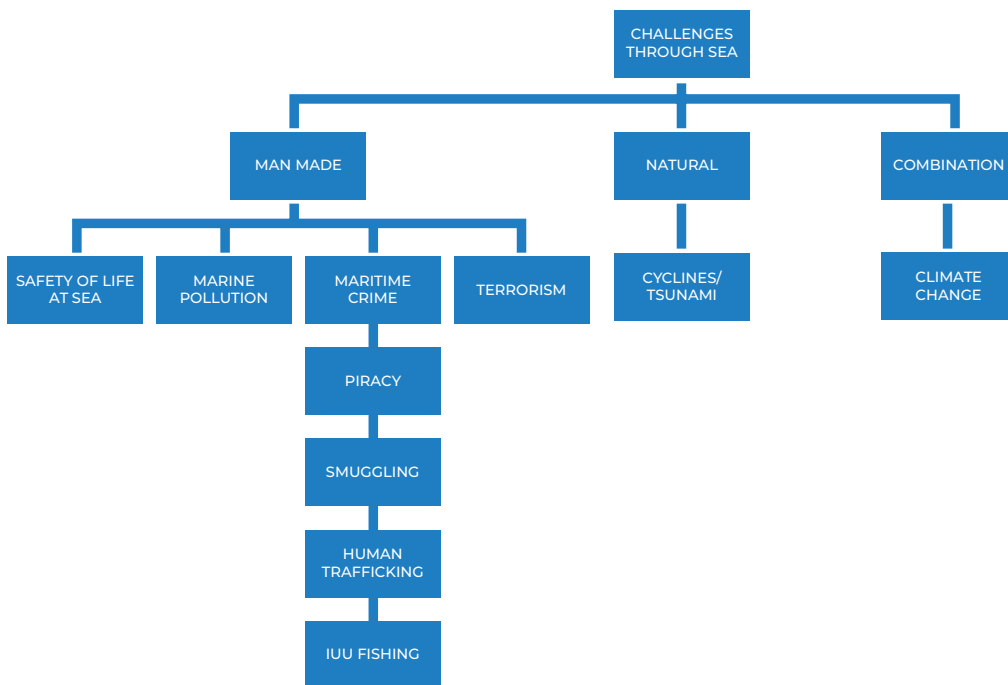
Coast Guards. To pre-empt the escalation of a palpable tension in the region by training and capacity building. The uncertainty and vulnerability simmering in the IOR, makes it a ripe ground for urgent OPK efforts. India's unique geo-political situation in the region and its commitment to a free and open Indo-Pacific necessitates that

it takes up leading, mitigating and humanitarian initiatives for the benefits of all its allies in the region as well as for its own long term interests in the area. As the power shifts from Bipolar to Multipolar alliances in Asia, India's strategy and security architecture needs to keep up with the evolving scenario to move towards a thriving 'web of allies' to further its interests.

MARITIME SECURITY CHALLENGES AND OUTLOOK

5. As much as the security challenges in the IOR have grown manifold, they have simultaneously opened up unprecedented avenues for cooperation. The spiralling demand for energy from India, China and Japan has left Sea Lines of Communication (SLOC) and choke points of the region vulnerable to attacks. Challenges in Maritime Security are as follows.

(a) Piracy and Armed Robbery at Sea. Latest global piracy report details 132 attacks since the start of 2020, up from 119 incidents in the same period last year.

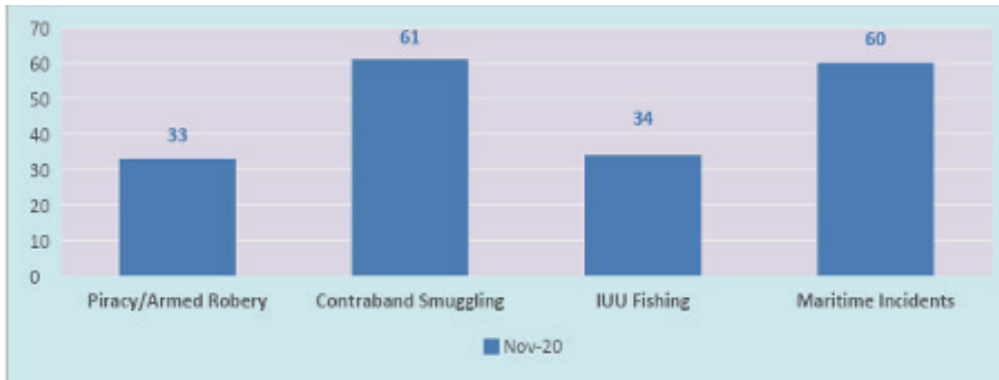


Challenges through Sea



UNODC Data on Piracy

- (b) Maritime Terrorism. Maritime terrorism is often defined as “the undertaking of terrorist acts and activities within the maritime environment, using or against vessels or fixed platforms at sea, or in port; or against any one of their passengers or personnel, against coastal facilities or settlements, including tourist resorts, port areas and port towns or cities”⁵. Marine Safety Committee (MSC) is IMO’s body with its mandate to mitigate maritime threats.
- (c) Trafficking. ‘Trafficking of Arms, Human and Drugs and psychotropic substances’, a UNODC world drug report, 2020, analyses the impact of COVID-19 on the drug markets, and while its effects are not yet fully known, border and other restrictions linked to the pandemic have already caused shortages of drugs on the street, leading to increased prices and reduced purity³².
- (d) Illegal, Unreported and Unregulated Fishing. IUU fishing is found in all types and dimensions of fisheries. It occurs both on the high seas and in areas within national jurisdiction. It concerns all aspects and stages of the capture and utilisation of fish, and it may sometimes be associated with organized crime. A recent report³¹ by World Wide Fund for Nature (WWF) indicates escalated IUU fishing in high seas of Indian Ocean.



IFC-IOR, Monthly maritime security update of IOR, Nov 2020

- (e) Marine Environment Protection/Maritime Pollution. Marine Environment protection is one of the major elements of maritime security.

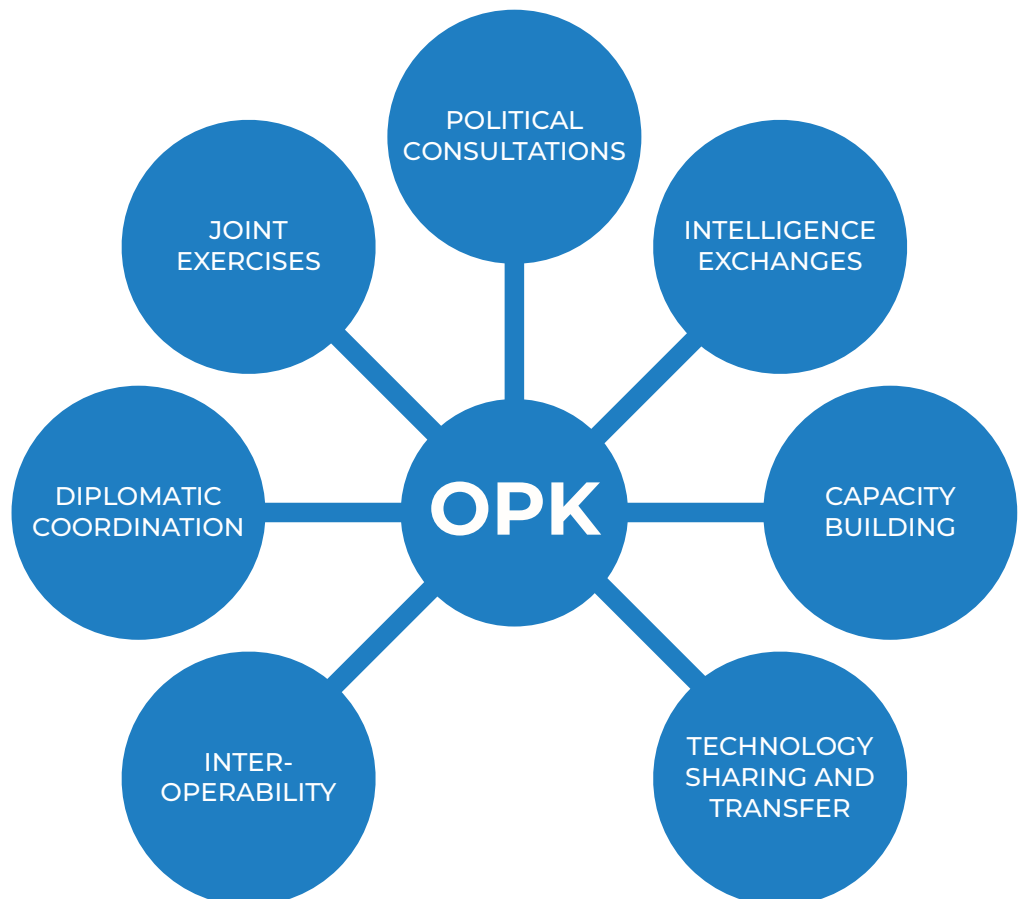
EXISTING FORUMS AND REGIONAL MARITIME COOPERATION

6. The IOR constitutes 4730 countries including littorals and also failing or failed states that are extremely vulnerable to environmental degradation, natural calamities and exploitation leading to erosion of sovereignty⁷. Inter-Governmental agreements like Contact Group on Piracy Off the Coast of Somalia (CGPSC), Djibouti Code of Conduct (DCoC) and Regional Cooperation Agreement on Combating Piracy and Armed Robbery (ReCAAP) aimed at repression of piracy and armed robbery against ships and other illicit maritime activities are contributing to enhancement of maritime security.
7. Regional cooperative agreements and partnerships such as BIMSTEC, SAARC, IFC, ASEAN, ADMM Plus, IORA, QUAD and SACEP deal with wider issues including the maritime sector for sustainable development.
8. International Maritime Organisation (IMO) is the international organisation under the United Nations with responsibility for the safety and security of shipping and prevention of marine and atmospheric pollution by ships. Marine Environment Protection Committee (MEPC) is a sub committee of IMO for maritime pollution. International Convention for the Prevention of Pollution from Ships (MARPOL) is the main international convention covering prevention of pollution of the marine environment by ships due to operational or accidental causes⁸.

9. IOR connects the West with the East and is a passage for half the world's trade, and yet it lacks the institutional mechanisms required in today's world order. Each of the regional groupings is instead, pursuing its own variegated agenda with little or no synchronisation or mutual reinforcement of policies.
10. OPK is oriented towards promoting maritime peace and security through a consultative and cooperative strategic platform of engagement for the IOR and commitment to Sustainable Development Goal- 14 (i.e. Conserve and sustainably use the oceans, seas and marine resources for sustainable development - Blue Economy) (SDG 14)9.

OPK - AN EARNEST WAY TO REGIONAL SECURITY

11. India's commitment to quick response for humanitarian disasters, piracy, maritime terrorism, illegal fishing and securing SLOCs with its closest littoral neighbours has been remarkable. India's

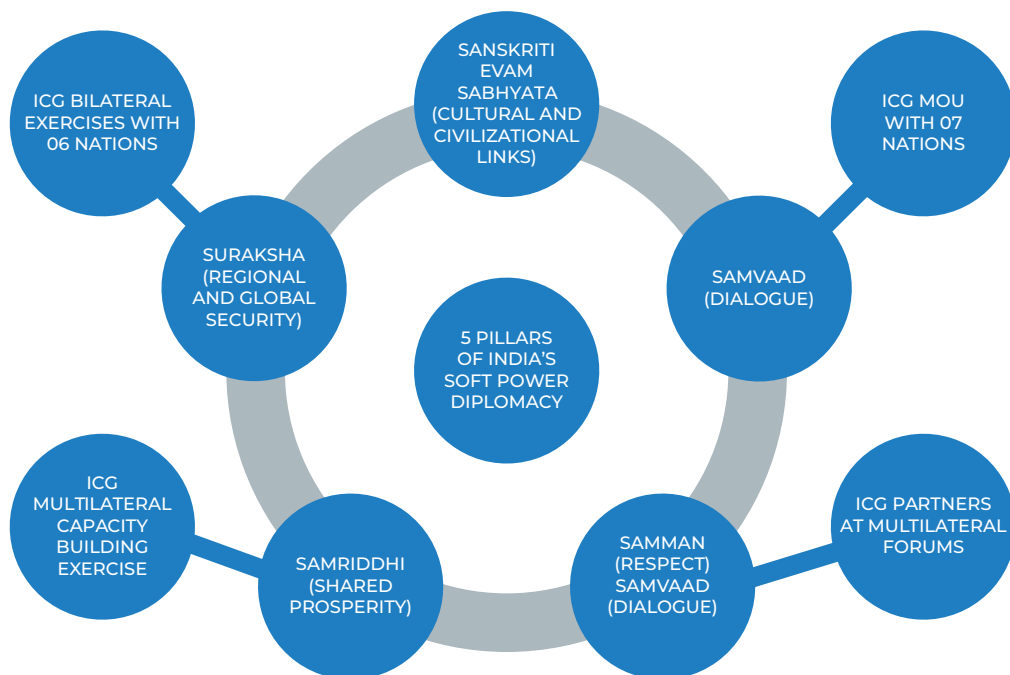


OPK Fundamentals

geographical location has meant that it has played a crucial role in increasing maritime bonding by initiating numerous capacity building and enhancing measures for effective OPK.

12. Implementation of OPK is in tandem with India's Soft Power diplomacy approach. India has successfully employed its ascending economic and military resources (conventionally hard power) in the form of 'soft power', to forge a relationship based on the power of attraction rather than coercion¹⁶.

Integrated with India's broader political and economic goals, our assertion of soft power is a multidimensional process, based on our cultural heritage, political ethics and Good Samaritan values. An inevitable and significant tool for diplomacy in the post-pandemic world, soft power is aimed towards constructing a favourable perception of the country which is a persuasive game changer against competing powers in the region. Many of these core tenets are being implemented by India through its policy initiatives and programmes.

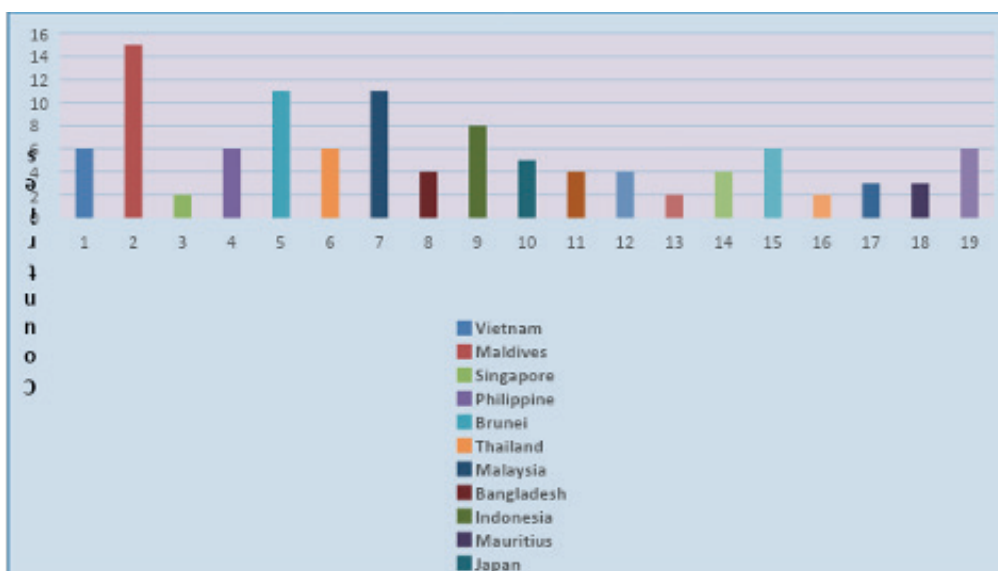


AIMS AND OBJECTIVES OF OPK

13. The significance of OPK has increased in the IOR lately. In recent years, uncertainty has heightened in the region because of China's territorial claims. The following are some aims and objectives of OPK²⁴ from India's point of view. Indian diplomatic policies as well as efforts at the implementation level have been facilitative to these objectives.
- (a) Protect India's Sovereignty and territorial integrity against threats in the maritime environment.
 - (b) Protect safety and security of Indian citizens, shipping, fishing, trade, energy supply, assets and resources in the maritime domain.
 - (c) Pursue peace, stability and security in India's, Maritime zones, maritime neighbourhood and other areas of IOR.
 - (d) To conduct joint exercises with Maritime Law Enforcing agencies of the IOR for interoperability and better coordination.
 - (e) To conduct HLMs with other Maritime Law Enforcing agencies of IOR.
 - (f) Encourage capacity building and enhancement of existing infrastructure and Maritime Law Enforcing agencies.
 - (g) To build an efficient intelligence network for better interdiction and response.
 - (h) Share expertise in Search and Rescue, Marine pollution response with other foreign agencies.
 - (j) Enhance cooperation under Indian Technical and Economic Cooperation with foreign agencies.
 - (k) Active participation in international bilateral and multilateral forums.

FURTHERANCE OF REGIONAL SECURITY ARCHITECTURE FOR PROMOTION OF PEACE AND STABILITY: ICG'S CONTRIBUTION IN COOPERATION

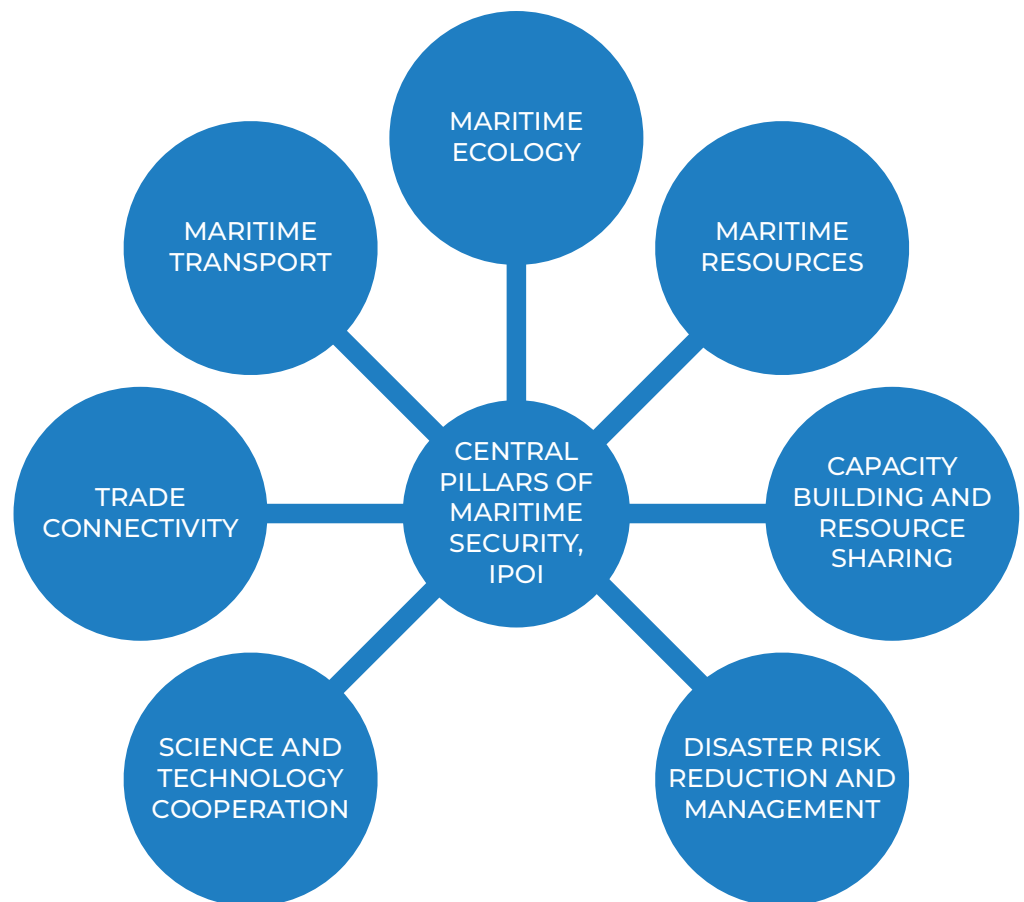
14. In line with the Prime Minister's Security and Growth for All in the Region (SAGAR)¹⁰ vision and acknowledging the rising strategic importance of the African Island Nations, India has been successful in building strategic relationships with IOR nations through security and economic partnerships. India has identified both geographical extremities of the Indo-Pacific spectrum as its arena of interest. It therefore becomes important that equal weightage and consideration be given to both the 'Act East' and the 'Act West' policies as part of India's strategy.
15. India has also been the first responder to Mauritius, Maldives, Seychelles and other countries in IOR for Pandemic relief packages.
16. The reinforcement of India's strategic objectives in the IOR is manifested via prudent initiatives to engage the maritime agencies of the Island Nations. The following figure shows the number of visits by ICG ships to various countries in the last decade. India offers assistance and collaboration in the form of joint exercises e.g. ICG has signed MOUs to forge synergy for combating crime at sea and developing regional cooperation with four nations in IOR.



ICG's Ship Visits in the Last Decade

ICG'S SHIP VISITS IN THE LAST DECADE

17. Indo-Pacific Ocean Initiative (IPOI) is another predominant effort by India which majorly contributes to translating and applying the fundamentals of OPK in the IOR. As a global initiative, the IPOI draws on existing regional cooperation architecture and mechanisms to focus on strategic autonomy and inclusiveness¹². Oriented towards promoting maritime peace and security through a consultative and cooperative strategic platform of engagement for the IOR and commitment to SDG 14; IPOI becomes important for ICG's emergence as the leading OPK force in the IOR in the post-pandemic times.
18. The ICG plays a definitive role in materializing the goals of IPOI. ICG aims to work towards effective Marine Pollution Response (MPR), Search and Rescue (SAR), disaster control and response and humanitarian assistance operations. With sustained patrol to ensure



Pillars of IPOI-Core Sectors of ICG Operations

the safety of trade and other enterprises on the high seas, ICG aims to bring together the associated agencies and international cooperation with IOR littoral states. Joint exercises and exchange programs with the goal of capacity building, strengthening diplomatic relations, strengthening marine intelligence and interoperability capacities of foreign Maritime Law Enforcing agencies, are regularly held. Complemented with the white hull diplomacy, ICG becomes aptly equipped to play its part in fulfilling strategic imperatives of IPOI.

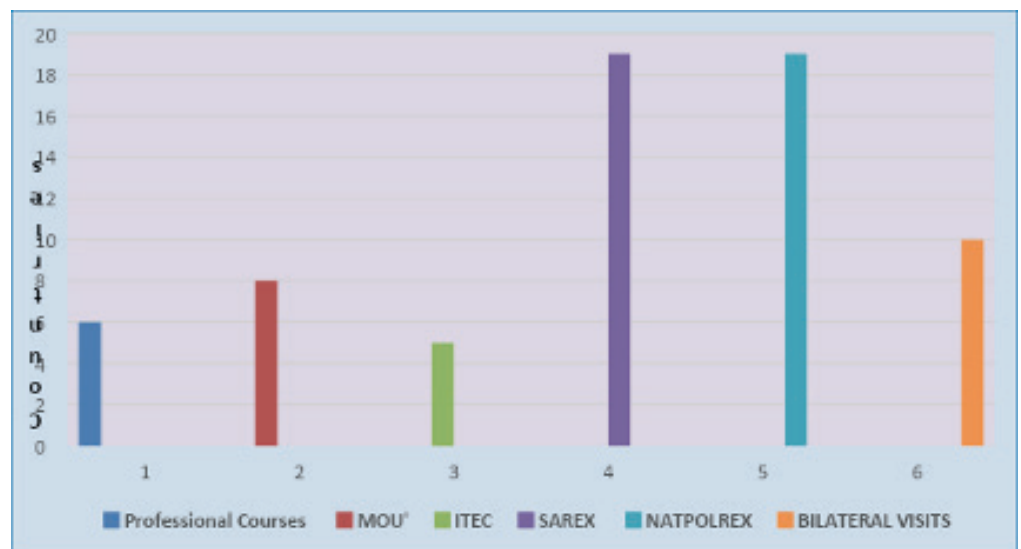
- An important part of the regional security apparatus - marine environment protection (materialised through Blue Economy¹³) or ‘the conservation and sustainable use of Oceans, seas and marine resources for sustainable development (Goal 14.20) is among the 17 Sustainable Development Goals of the UNDP as the “natural next step in the overall conceptualization and realization of sustainable human development”.



20. ICG plays a vital role as the national agency for ensuring preservation of the marine environment(P3C)¹⁸, echoing the Prime Minister's grand vision of SAGAR¹⁴ and Swachh Sagar Abhiyan¹⁹.
21. ICG has made advances towards coastal protection and sustainable economic growth by strategic positioning of units and awareness events like ICC under the aegis of UNEP and Swachhtha hi Sewa campaign.

ICG-BILATERAL AND MULTILATERAL MARITIME SECURITY COOPERATION IN RECENT TIMES

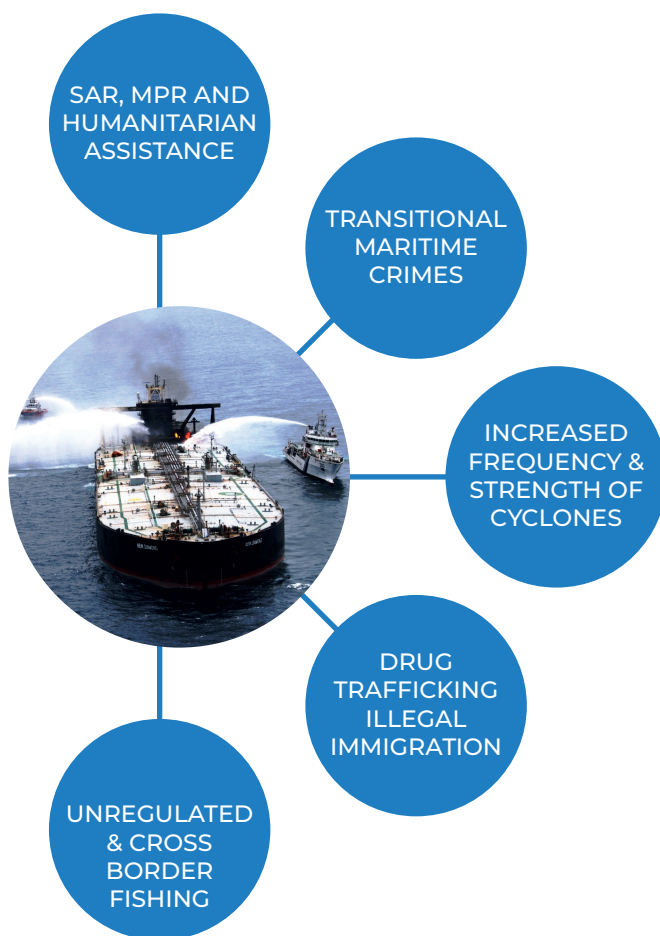
22. ICG has been training Indian stakeholders and representatives of Maritime LawEnforcing agencies across the world to ensure preventing and tackling marine pollution with specialized capability vessels. ICG's commitment for bilateral relations and training of regional Maritime Law Enforcing agencies has gone leaps and bounds. Practical demonstration during Search andRescue Exercise (SAREX) and conducting National Pollution Response Exercise(NATPOLREX), ICG has accrued international acclaim and has become a prominent leader in effective containment of oil spills across the Indian subcontinent, including recent Tier III Oil Spill response in Mauritius backed by South Asia Co-operative Environment Programme (SACEP). In August 2020, taking lead from



ICG International Cooperation 2019

SAGAR and SACEP, an immediate mobilisation of ten member Indian Coast Guard specialist Pollution Response team with equipment was enabled, to contain and respond to Mauritius Oil Disaster to overcome the ecological emergency.

23. In a recent Sea-Air coordinated operation in December 2020, ICGS Varad rescued 19 crew from a distressed Bangladeshi boat South East off Paradip. Boat was adrift for 10 days due to machinery breakdown prior to rescue by ICG. An adrift Tsunami warning buoy of Thailand's National Disaster Warning Centre was recovered by ICG ship and handed over to a Thai vessel in November 2020, reiterating ICG's resolve for jointness, co-operation and sharing of oceanographic information in IOR with littorals.
24. Swift Prompt & Professional Fire Fighting on board MT New Diamond Of Sri Lanka over a period of 07 days in September 2020 by ICG under the aegis of SACEP, doused raging fire in a mammoth 333 m



ship without any oil spill averting a major environmental disaster. An efficient SAR and marine pollution response coordination ensured that 22 crew were safely evacuated.

25. ICG has been carrying out operations against trans-national anti-national activities like piracy, smuggling and other illicit crimes in coordination with customs, fisheries and International marine agencies. Under a swift sea-air coordinated operation in November 2020 ICG Dornier and ship Rajkiran apprehended Myanmar's boat with 12 poachers & 60 kg of endangered sea cucumber involved in illegal fishing in the Maritime Zone of India in Andaman & Nicobar Island.
26. ICG has been conducting bilateral and multilateral exercises with Japan, Bangladesh, Cambodia, Indonesia, Malaysia, UAE, Vietnam, Korean, Maldives, Singapore, Australia and Sri Lanka Maritime agencies for more than a decade, indicating the value these countries see in Coast Guard cooperation.
27. ICG has signed Memorandum of Understanding (MOU) with Maritime Law Enforcing of several partner countries like Bangladesh Coast Guard, Japan Coast Guard, Korean Coast Guard, Vietnam Coast Guard, Royal Oman Police Coast Guard, and Sri-Lanka Coast Guard. High Level meetings, Hot line, joint exercises and ship visits are annual features under each of the MOU.
28. Way Ahead.

Following are proposed suggestions to take the initiatives of India in the Ocean Peacekeeping to a higher level.

- (a) To continue its proactive maritime engagement of Persian Gulf states, through White hull, while maintaining neutrality²⁸.
- (b) Engaging with its Diaspora in Mauritius and Seychelles²⁸.
- (c) Engaging to utilise the Andaman Islands to foster maritime diplomatic ties with Singapore, Indonesia and Australia through White Hull²⁸.
- (d) Enhance the capacity and technical cooperation for sharing expertise through ICG in maritime law enforcement.

- (e) Soft-power diplomacy has played a significant role in India's maritime domain. ICG to enhance participation in international platforms for sharing of expertise in maritime law enforcement.
- (f) Piracy and Armed Robbery – To play the lead role in maritime security by actively spearheading anti-piracy operations and providing real time intelligence and support.
- (g) Illicit Drug and Human Trafficking - Maritime Law Enforcing agencies to develop interdiction capacities by timely and accurate intelligence and effective security screening and reliable officials at points of export, transshipment, and/or landing.
- (h) To actively participate through ICG in international bilateral and multilateral forums and provide leadership.
- (j) To engage and promote ICG Ship visits to countries in region and share expertise through joint exercises.
- (k) With its preferred formulation of a 'free, open and inclusive Indo-Pacific' which refers to a multi-polar regional order, India to follow its own leadership ambitions and the path of 'multi-alignment' or 'issue-based alignment'.
- (l) Training of global agencies for SAR and M-PR through ICG with nations in IOR.

CONCLUSION

29. It is in India's strategic interest to project a friendly and helpful image to the littoral nations. To counter regional piracy, Illegal Unreported and Unregulated (IUU) fishing, smuggling of drugs, people and arms, humanitarian and disaster relief, and carry out search and rescue and maritime disputes and to contain maritime security challenges, it is prudent as well as futuristic to employ the Coast Guard. Indian Coast Guard, as a peace-time maritime agency, is aptly equipped to counter low-intensity threats and implement India's collaborative approach for OPK in IOR. Indian Coast Guard creates scope for a novel and unique kind of diplomacy that promises to progress India's SAGAR vision for regional and international cooperation.

30. As one of the dominant nations in the IOR, the ICG's involvement with the region in the post-pandemic times is pivotal to sustain and propel the principles of Blue Economy, now more than ever. Post-pandemic times necessitates a strategic diplomatic approach and India's white hull diplomacy is the answer to the collaborative future in IOR. An inevitable and significant tool for diplomacy, soft power is aimed towards constructing a favourable perception of the country which is a persuasive game changer against competing powers in the region.
31. With its continued and multi-pronged policy initiatives, ICG can turn the situation in favour of regional peace, ensuring regional ocean peace through consultation and coordination. Its efforts at the levels of IPOI, its island diplomacy and constructing more suitable security architecture, its attention to the basic tenets of Blue Economy and White Hull Diplomacy approach can go a long way in materialising Ocean Peace-Keeping efforts for the IOR.

ABOUT THE AUTHOR

Yoginder Dhaka serves as a Deputy Inspector General of the Indian Coast Guard.

REFERENCES

1. Prime Minister's Keynote address at Shangri La Dialogue (June 01, 2018). Ministry of External Affairs, Government of India, Media Centre, Speeches and Statements. <https://www.mea.gov.in/SpeechesStatements.htm?dtl/29943/Prime+Ministers+Keynote+Address+at+Shangri+La+Dialogue+June+01+2018>
2. Bateman, S., Gamage, R., & Chan, J. (Eds.). (2017). ASEAN AND THE INDIAN OCEAN: THE KEY MARITIME LINKS (pp. 91-104, Rep.). S. Rajaratnam School of International Studies. Retrieved August 22, 2020, from <http://www.jstor.org/stable/resrep05888.15>
3. Ghosh, P. K. (Jan 18-20, 2004, Jan 18-20). Maritime Security Challenges in South Asia and the Indian Ocean: Response strategies. Center

- for Strategic and International Studies. American-Pacific Sealanes Security Institute.
4. Helping Business. (2020, oct 2020 14). Retrieved from International Chamber of Commerce: <https://www.icc-ccs.org/index.php/1298-pirates-are-kidnapping-more-seafarers-off-west-africa-imb-reports>
 5. Singh, A. (2019). Maritime Terrorism in Asia: An Assessment. ORF Occasional Paper.
 6. Sheliya, H. J. (2019). India's Maritime wall in the Indo-Pacific Region. Sigma Iota Rho.
 7. (Retd), M. G. (2020). Kautilya's Prescription and Relevance for India's Neighbourhood Management. In A. & V Adm Pradeep Cahuhan, Securing India's Maritime Neighbourhood, Challenges and Opportunities (pp. 105-114). Delhi : Vij Books, India, Pvt, Ltd.
 8. International Maritime Organisation. <https://www.imo.org>
 9. Hudson, A. (2018, Nov 26). Blue Economy: a Sustainable ocean economic paradigm. Retrieved from UNDP: <https://www.undp.org/content/undp/en/home/blog/2018/blue-economy-sustainable-ocean-economic-paradigm.html>
 10. G.Padmaja. (2018). Revisiting 'Sagar'- India's Template for Cooperation in the Indian Ocean Region. National Maritime Foundation.
 11. Prabhakar, W. (2014). SEA CHANGE: EVOLVING MARITIME GEOPOLITICS IN THE INDO-PACIFIC REGION (pp. 45-59, Rep.) (Michel D. & Passarelli R., Eds.). Stimson Center. Retrieved August 22, 2020, from <http://www.jstor.org/stable/resrep10916.7>
 12. Panda, J. (2020). The strategic Imperatives of Mod's Indo-Pacific ocean Initiative. Asia Pacific Bulletin, 2.
 13. Doyle, T. (2018). Blue Economy and the Indian Ocean Rim. Journal of the Indian Ocean Rim, 1-8.
 14. Budhraja, H. M. (2016). Ocean based Blue Economy: An Insight into the Sagar as the Growth Frontier. NITI Aayog.
 15. Bergin, A., Brewster, D., & Bachhawat, A. (2019). Ocean horizons: Strengthening maritime security in Indo-Pacific island states (pp. 29-39, Rep.). Australian Strategic Policy Institute. doi:10.2307/resrep23122.6

16. Das, A. (Ed.). (2013). INDIA-ASEAN DEFENCE RELATIONS (pp. 57-96, Rep.). S. Rajaratnam School of International Studies. Retrieved August 22, 2020, from <http://www.jstor.org/stable/resrep05896.6>
17. Doyle, T. (2018). Blue Economy and the Indian Ocean Rim. *Journal of the Indian Ocean Rim*, 1-8.
18. Protection, Preservation of marine Environment, prevention and control of marine pollution urged by Dy Director General (2002) Insp Gen. Prabhakaran Paleri (Retd) during Oil Spill Management Workshop (Goa, 19-20 Jul 02).
19. Blue Waters Feb 18 Vol XIX pp.8
20. Department of Economic and Social Affairs, S. D. (n.d.). United Nations. Retrieved from <https://sdgs.un.org/goals/goal14>
21. (Retd), Lt. General (2020, February 26). Changing Dynamics of Indo-Pacific. *Naval Forces*
22. Castillo, F. Borgese, EM (ed.). *Peace in the Oceans: Ocean governance and the Agenda for Peace*.
23. Venter, D. 2017. <http://books.openedition.org/cei/469>
24. Takai, S., & Akimoto, K. (1999). Ocean-peace keeping and new roles for maritime force. *National Institute for Defence Studies*.
25. Baruah, D. M. (2020). India in the Indo-Pacific: New Delhi's Theater of Opportunity(pp. 12-17). *Carnegie Endowment for International Peace*.
26. IFC-IOR. (2020). Monthly Maritime Security Update(MMSU) November 2020. Information Fusion Centre, Indian Ocean region.
27. VAdm Pradeep Chauhan, A. &. (2020). *Securing India's Maritime Neighbourhood, Challenges and Opportunities*. Delhi: Vij Books India Pvt Ltd.
28. Athreya, R. (2020). Maritime Diplomacy furthering India's Maritime Aspirations in IOR. In A. @. VAdm Pradeep Chauhan, *Securing India's Maritime Neighbourhood, Challenges and Opportunity* (pp. 44-69). Delhi: Vij Books, India, Pvt Ltd.
29. Food and Agriculture organisation of United Nations. <http://www.fao.org/iuu-fishing/background/what-is-iuu-fishing/en/>

30. Wafar, Mohideen & Venkataraman, Krishnamoorthy & Ingole, BABAN & Khan, Syed & Ponnappakkam, LokaBharathi. (2011). State of Knowledge of Coastal and Marine Biodiversity of Indian Ocean Countries. PloS one. 6. e14613. 10.1371/journal.pone.0014613.
31. Unregulated fishing on the high seas of Indian Ocean. (2020, Nov 02). Retrieved from WWF: <https://www.wwf.eu/?uNewsID=1014116>
32. UNODC World Drug Report. (2020, June 25). Retrieved from UNODC: <https://www.unodc.org/unodc/press/releases/2020/June/media-advisory---global-launch-of-the-2020-world-drug-report.html>
33. James D. Llewelyn (2017) Preventive Diplomacy and the Role of Civil Maritime Security Cooperation in Southeast Asia, Strategic Analysis, 41:1, 49-60, DOI: 10.1080/09700161.2016.1249178
34. Mitra, J. S. (2018). India's Indo-Pacific Strategy: Understanding India's Sphere of Influence. Sigma Iota Rho Journal of International Relations.
35. Nerwal, P. S. (2006-2007). Trans-boundary Movement of Hazardous Waste and Indian Experience. National Capital Law Journal, 55-80.



THE BENIGN SIDE OF A PROFESSIONAL FIGHTING FORCE INDIAN NAVY, HARD, AND GREEN FOOTPRINT

By Colonel Ankit Dilip Deo

“The whole is greater than the sum of its parts.”

- Gestalt Principle

INTRODUCTION

The Armed Forces of democratic countries are often called upon to fulfil responsibilities, which fall far out wider than what they are trained to do, and thus, these commitments stand diametrically opposite to combat-oriented ones. However fulfilment of such actions leads to reinforcement and strengthening of public trust, and fosters a deep sense of respect for the Armed Forces in society. The Indian Navy has been called upon to, and fulfilled, more often than not, this crucial role, among its four pivotal roles delineated in the Indian Maritime Doctrine i.e. combat, diplomatic, constabulary and benign. It should not surprise anyone that operations undertaken under the benign role have been ubiquitous in the Indian Navy's calendar of operations, given that cyclones, earthquakes, floods and natural disasters have become much more common these days owing to various factors.

To elaborate, the Indian Ocean Region (IOR) and its hinterland form the locus of about 70% of world's natural disasters resulting from earthquakes, cyclones, tsunamis and floods. The 2004 Asian Tsunami and the 2008 Super Cyclone in Myanmar will be etched in public memory for a very long time. The year 2019 and 2020 saw earthquakes in Indonesia, floods and landslides in India, seasonal cyclones in the islands of Indian Ocean, and many more such natural calamities. The cascading domino effect on famine, poverty, societal imbalance and other tragedies is incalculable. Management of disasters is significantly important in the IOR as it is home to several island states and these littoral areas are home to a quantum of humanity. Owing to the adverse effects of climate change, the frequency and intensity of natural disasters is also on the increase.

The Indian Navy, given its distinctive characteristics such as its wide spectrum of operational horizon i.e. surface, sub-surface, and air, and a capacity for expeditious deployments to far-off locations, finds itself in a unique position of strength when having to respond to such urgent requirements. In fact, as illustrated later in this article, the Indian Navy has convincingly, and persuasively fulfilled its benign, humanitarian role whenever called upon to do so, and has engendered a significant sense of trust and dependability through display of sangfroid leadership in times of adversity.

SOME BACKGROUND

The Indian Parliament passed the Disaster Management Act in Dec 2005, which led to the establishment of the National Disaster Management Authority (NDMA) as the principal coordinating authority for disaster response by both civilian and military agencies. By establishing the NDMA, the Indian Govt signalled a shift from a reactive approach to one based on proactive planning for potential disasters.

Over the past decade, increasing instances of natural disasters and regional instabilities have necessitated increased deployment of the Indian Navy for undertaking Humanitarian Assistance and Disaster Relief (HADR), Non-combatant Evacuation Operations (NEO) and Search and Rescue (SAR) operations.

By expeditious deployment of critical assets, the Indian Navy continues to be at the forefront of HADR operations, both in India and in the neighbourhood. It continues to maintain credible HADR capability and promotes expeditious deployment and coordination between regional navies for combined HADR operations. Towards this end, as a part of Indian Ocean Naval Symposium (IONS) initiatives in 2014, the Indian Navy assumed the Chair of the IONS Working Group on HADR in order to formulate a way ahead for developing coordinated HADR response among the IOR navies.

DELVING DEEPER

The Indian Navy has come a long way since 2013, when former Prime Minister Dr Manmohan Singh declared that, "India was a 'Preferred

Security Partner In the Indian Ocean and is committed in its efforts to improve the maritime environment”. Time and again, demonstrations of its capabilities as a ‘first responder’ along the Indian Ocean littorals have testified to the Indian Navy’s position as a ‘Preferred Security Partner’ in the IOR. By contributing its resources to prevent or mitigate regional or international crises, the Indian Navy continues to demonstrate its ability to sustain long deployments across the IOR and shore up its credentials as a responsible global power.

It stands to attention that the key to mitigate disasters in adverse situations rests on ensuring swift and coordinated intervention with local authorities on-ground. What makes it possible for the Indian Navy to be the first responder in the IOR is its operational readiness, forte in planning and diligence of execution. To illustrate, Indian naval ships on overseas deployment are mandated to carry additional HADR kits for such possible events, thus enabling them to be well-prepared to undertake relief work in case of an unexpected contingency. This has been possible given the paradigm shift in Indian Navy’s deployment patterns from 2017 onwards to a dynamic ‘Mission Based Deployment’ concept in which Indian Navy warships are deployed regularly in its areas of interest, both within and beyond IOR, to undertake various tasks such as Presence and Surveillance (PSM) missions, joint maritime exercises with friendly foreign countries including operational visits to these countries. Such an approach provides Indian ships the requisite speed and flexibility to expeditiously divert and provide assistance in its area of operations, if required.

MAJOR HADR OPERATIONS BY INDIAN NAVY

In light of the foregoing discussions, it will be interesting to shed light on some of the major HADR Operations undertaken by the Indian Navy in the recent years.

ASIANTSUNAMI (2004): On 26th December 2004, a high intensity under-sea earthquake near West coast of Sumatra resulted in a tsunami, which caused large scale damage in the Indian Ocean Littoral countries. Major countries affected were India, Indonesia, Malaysia, Maldives, Myanmar, Seychelles, Somalia, Sri Lanka and Thailand. The Indian Navy launched

large-scale HADR operations within and outside the country – Op Madad (Tamil Nadu, Andhra Pradesh), Op Sea-waves (Andaman & Nicobar Island), Op Rainbow (Sri Lanka), Op Castor (Maldives), and Op Gambhir (Indonesia). Extensive deployment of ships, aircraft and thousands of personnel ensured delivery of relief material to the affected areas.

OPERATION SUKOON,LEBANON (2006): This was the largest Non-Combatant Evacuation Operation (NEO) since independence undertaken by the Indian Navy entailing evacuation of Indian, Sri Lankan and Nepalese nationals from Lebanon during the Israel – Lebanon conflict. Three frontline warships – INS Brahmaputra, Betwa and Shakti evacuated a total of 1942 personnel.

CYCLONE NARGIS,MYANMAR (2008): Cyclone Nargis led to one of the worst natural disasters in the history of Myanmar and caused huge devastation. INS Rana and INS Kirpan executed major relief operations to assist Myanmar.

OPERATION SAFE HOMECOMING,LIBYA (2011): Indian Navy undertook evacuation of Indian diaspora from war torn Libya, when evacuation from other means became extremely difficult. INS Mysore, Aditya and Jalashwa were deployed to undertake this operation.

TYPHOON HAIYAN,PHILIPPINES (NOV 2013): Typhoon Haiyan caused a huge loss of life and material in the Philippines. Indian Naval Ships were dispatched with relief material as part of HADR operations.

FLIGHT MH-370: Indian Navy deployed INS Satpura, Sahyadri, Saryu, and Batti Malva along with P8I aircraft to carry out search in Bay of Bengal, the Andaman Sea and west of Andaman Islands in measures to assist the Government of Malaysia in search for the remains of the missing Malaysian flight MH-370.

CYCLONE MORA, BANGLADESH (2017). INS Sumitra provided relief material to the Government of Bangladesh and undertook rescue operation of 33 fishermen spotted by alert crew of INS Sumitra in rough sea conditions.

CYCLONE BERQUITTA, MAURITIUS(2018). Indian Naval ships Deepak and Sharda provided HADR stores while INS Sarvekshak was kept on standby



for any unforeseen eventuality and subsequently provided relief material to the Government of Mauritius in the aftermath of Cyclone Berquitta.

CYCLONE IDAI, MOZAMBIQUE (2019). Indian Navy took part in the HADR operations in Mozambique, after Cyclone India Which had caused catastrophic flooding in the region. Indian Navy ships on Mission Based Deployment were diverted to provide support to local administration by setting up medical camps, providing food, water and other necessary relief materials.

CYCLONE DIANE, MADAGASCAR (2020). INS Airavat undertook Op-Vanilla to provide assistance to the affected population of Madagascar post devastation caused by Cyclone Diane. Medicines, food, water and other relief stores were distributed to the affected local population of Madagascar.

OPERATION SAMUDRASETU. The ongoing COVID-19 pandemic has been unprecedented and its impact across the globe has been extraordinary. It has posed significant challenges to the way navies operate. Notwithstanding the restrictions imposed by the pandemic, Indian Navy was at the forefront of efforts to combat the coronavirus. The Navy executed Operation Samudra Setu to evacuate Indian citizens stranded abroad. The Indian Navy began the operations on 5th May 2020 and completed the evacuation of 3992 Indian citizens by 8th July 2020. Indian Naval Ships Jalashwa, Shardul, Magar and Airavat participated in the operation which lasted over 55 days and involved traversing more than 23,000 kilometers by sea. The operation was undertaken in close coordination with the Ministry of External Affairs, Home Affairs and State Governments.

MISSION SAGAR: Indian Navy embarked upon Mission SAGAR in January 2020, a special COVID relief mission to deliver assistance to Indian Ocean littoral states. Indian Naval Ship Kesari delivered over 580 tons of food aid and essential medical stores to Maldives, Mauritius, Madagascar, Comoros Islands and Seychelles. A 14- member Naval Medical Assistance Team onboard the ship assisted local governments in formulation of a long term strategy to counter COVID-19 through mutual sharing of experience. This was followed by Mission SAGAR-II in which INS Airavat

provided essential food aid to Sudan, South Sudan, Djibouti and Eritrea. The mission highlighted the importance India gives to relations with her maritime neighbours and also reiterated India's position as a dependable partner in the IOR. Mission SAGAR III was undertaken in December 2020 by Indian Navy which involved handing over HADR stores to Vietnam and Cambodia. Mission Sagar, has thus become a major milestone in India's engagement with other IOR countries, in line with Prime Minister Shri Narendra Modi's vision of SAGAR – Security and Growth for All in the Region- focusing on an extended neighbourhood in the Indian Ocean.

INDIAN NAVY'S GREEN FOOTPRINT AND FIGHTING MARINE POLLUTION

Besides natural disasters, rapid industrialization in the recent decades has caused irremediable human-made damage to the marine environment and its resources, especially in the IOR. Discharge of industrial waste, nuclear waste, chemical waste and agricultural waste into the ocean, oil spillage etc., continue to have deleterious effects on the maritime ecosystem environment, as well as to human and marine life health.

As a responsible maritime force, the Indian Navy has always focused on reducing its environmental footprint by minimizing marine pollution, energy conservation and use of alternate sources of energy. In 2019, it formulated a guiding policy document, titled the Indian Navy Conservation Roadmap, which highlights key policy positions and practices which will be undertaken to achieve a green footprint.

It has also established collaboration links with Indian Oil Corporation Ltd (IOCL) to achieve suitable fuel specifications in order to reduce pollution from marine engine exhausts. Towards protection of ocean ecology, Indian Navy has incorporated all six schedules of International Convention for the Prevention of Pollution from Ships (MARPOL) regulations wherein all Indian Navy ships are being equipped with MARPOL compliant pollution control equipment such as sewage treatment plants and Oily Water Separator Plant for treating waste generated onboard. Furthermore, to ensure upkeep of harbour waters, accelerated bioremediation technology is also being developed at the Naval Materials Research Laboratory (NMRL).

FINAL WORD

The Indian Navy has always exhibited its role as a professional and multidimensional force, and an enduring and dependable partner within, as well as outside the country for effective management of disasters. Over the years, the Indian Navy's contributions, commitment and timely assistance to other Indian Ocean littoral nations has engendered a climate of mutual trust, inter-dependability and confidence in India's capability to provide rapid relief by deploying its naval assets in times of natural and man-made disasters.

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Ankit Dilip Deo serves as a Colonel of the Indian Army.

INDIAN COAST GUARD IN INDIAN OCEAN REGION - A PROFESSIONAL AND DEPENDABLE PARTNER

By Deputy Inspector General P. Rajesh

INTRODUCTION

1. Home to nearly 2.6 billion people, which is one-third of the world's population, the Indian Ocean Region (IOR) consists of 28 states, spanning across three continents and covers 17.5% of global land area. The IOR in which India occupies center-stage is at the crossroads of global trade interconnecting the Atlantic and Pacific oceans. The Indian Ocean whose waves lap the shores of Australia, South-East Asia, South Asia, West Asia and the Eastern seaboard of Africa is critical to the future of the world as two-thirds of the world's oil shipments, one-third of its bulk cargo; and half of its container traffic transit through its Sea Lines of Communication.
2. India which lends its name to the Indian Ocean is heavily dependent on it. 95% of India's trade by volume and 68% by value transits through the waters of the Indian Ocean. India has myriad interests in the Indian Ocean ranging from energy security, economic growth, safety of shipping lines and most importantly playing a leading role in shaping the maritime safety and security architecture in the IOR while also preserving its marine resources and unique ecology.

EMERGENCE OF INDIAN COAST GUARD IN THE IOR

3. In 1973, negotiations commenced under the aegis of the third United Nations Convention on the Law of the Sea (UNCLOS) with the idea to have an Exclusive Economic Zone (EEZ) stretching out to 200 nautical miles from the coastline for each maritime nation. The EEZ was meant to be economically exploited for its natural resources exclusively by countries claiming rights to the EEZ. Taking into consideration, the emerging maritime framework, the Government of India (GoI), enacted the Maritime Zones of India (MZI) Act 1976, to claim sovereign rights over the vast sea area of the EEZ. In one

stroke, India acquired 2.01 million square kilometres of the ocean for extensive exploitation of all living and non-living resources.

4. The Indian Coast Guard (ICG) was created with a purpose by Gol. It was a necessary decision for India in the emerging maritime scenario world specially post enactment of the MZI Act, 1976. The discovery of oil in Mumbai (then Bombay) High and the consequent development of the high-value offshore installations, also necessitated measures for protection and disaster response in this extremely vital area of India's industrial and economic interests. Accordingly, Gol approved the setting up of an interim 'Coast Guard Organisation' in 1977 with two frigates and five patrol boats transferred from the Indian Navy and Customs. With the passage of the Coast Guard Act, 1978 by the Parliament, an independent ICG Organisation came into being on 19 Aug 1978. From thereon, the ICG would continue to build on its strength to become a 'Dependable and Professional' partner in IOR.²

FUNCTIONAL RESPONSIBILITIES OF ICG

5. The duties and functions assigned to the ICG are clear, specific and futuristic in an evolving maritime scenario. ICG is the principal peacetime maritime agency of India responsible for maritime safety, maritime security and marine environment protection & preservation. In its natural role, ICG is a multi-mission service and can be used for a distinct blend of law enforcement, humanitarian, diplomatic and environmental roles.

EMERGENCE OF COAST GUARDS AND RATIONALE FOR COAST GUARD COOPERATION

6. As the world becomes more attuned with economic growth and prosperity there is growing realization that the costs of war are huge. Nations have understood the economic potential of oceans and seas for their well-being and with traditional wars less likely, the focus has shifted towards operations other than war such as combating Piracy & Armed Robbery, IUU fishing, Drug Running, Human Trafficking, Arms Smuggling and other transnational maritime crimes. To be good stewards of the oceans, nations around the world are investing



ICG charter of duties

in building credible Coast Guard organisations to protect their interests.

7. Coast Guards are emerging as important national institutions world over with the potential to make a major contribution to Maritime Safety, Combating Transnational Maritime Crimes and Preservation & Protection of Marine Environment. Countries now prefer to deploy Coast Guard vessels and personnel as part of 'White Hull Diplomacy' to further cooperation with regional partners in the domains of marine environmental protection, maritime safety, resource management and preventing illegal activities at sea.³
8. The IOR has also seen major developments with regards to the emergence, evolution and employment of Coast Guards. These developments have been particularly rapid since the 1990s wherein Bangladesh, Sri Lanka, Malaysia and Kenya have established Coast Guards while Myanmar is in the process of establishing a Coast Guard organisation.

ICG - AN IMPORTANT ENABLER FOR INDIA'S MARITIME DIPLOMACY

9. India has acceded to a number of International Conventions pertaining to Maritime Safety and Security and Marine Environment Protection. ICG is the nation's Principal Maritime Law Enforcement Agency and the National Coordinating Agency for Maritime SAR and Marine Pollution Response. Being associated with the maritime domain, the duties and functions of ICG are intrinsically transnational in nature. Based on these roles and the fact that it is the leading Coast Guard agency of the region, ICG is an apt tool for furthering maritime diplomacy. The benign and peacetime roles of the ICG make it appropriate for projection of soft power. The non-military demeanour of ICG enables GoI to utilise ICG ships and aircraft for collaborative engagements in the IOR and beyond.

ICG COOPERATIVE ENGAGEMENTS – INITIATION AND GROWTH

10. The first recorded instance of an ICG ship visiting a foreign port was the visit of ICGS Ahilyabai to Belawan, Indonesia from 15-17 Sep 87. The ship was on passage to Haldia after being delivered by the shipyard in Singapore. Though the visit was not formal, it laid the foundation for further interactions between two services. Subsequently, the first institutionalised bilateral exercise commenced in 1991 in the form of Exercise 'DOSTI' with the Maldives National Defense Force Coast Guard (MNDF CG).
11. The apprehension of hijacked Japanese flagged vessel, MV Alondra Rainbow in 1999 brought a paradigm shift in the international engagements of ICG. This was the first apprehension of a hijacked vessel by any maritime law enforcement agency in the world. ICG gained prominence in the Asian region and this incident led to the development of formal bilateral cooperative frameworks with the Japan Coast Guard (JCG) and Korea Coast Guard (KCG).
12. During the period between 2000-2006, multilateral cooperative initiatives like Heads of Asian Coast Guards Agencies Meeting (HACGAM) and Regional Cooperation Agreement on Combating Piracy and Armed Robbery against ships in Asia (ReCAAP) were

started. Conduct of the ASEAN Regional Forum Workshop on Anti-Piracy in Oct 2000 which was attended by 43 delegates from 17 countries highlighted ICG's capability and resolve to pursue maritime cooperation at regional level. Overseas Deployments (OSD) of ICG ships commenced with the visit of ICGS Sangram to Japan in 2001, a landmark event as this was the first time that an ICG ship had traversed such a great distance.

ICG'S COOPERATIVE ENGAGEMENTS - SYSTEMATIC AND HOLISTIC

13. Bilateral Engagements. ICG engages in institutionalised cooperation under Memorandums of Understanding/Cooperation with the Coast Guards of Bangladesh, Indonesia, Japan, Korea, Oman, Sri Lanka and Vietnam. A hotline between the Director Generals of ICG and Pakistan Maritime Security Agency has been established for exchanging information on combating transnational maritime crimes, marine pollution incidents and facilitation of search and rescue operations. The provisions of the MoU/ MoC cover:-
 - (a) Suppression and prevention of maritime crimes.
 - (b) Exchange of information relating to ships including accused persons involved in criminal activities.
 - (c) Carry out Search and Rescue operation at sea based on request.
 - (d) Exchange of information and mutual assistance relating to any pollution in the sea.
 - (e) Exchange of expertise and specialist visits.
14. Multilateral Engagements. ICG has been at the forefront of regional efforts aimed at enhancing Maritime Safety and Security along with ensuring Marine Environment protection. These include ReCAAP, HACGAM, Indian Ocean Rim Association (IORA) and South Asia Cooperative Environment Programme (SACEP).
 - (a) ReCAAP. India has been a Contracting Party since inception in 2006 and Director General, ICG is the Indian Governor to ReCAAP Information Sharing Centre (ISC) while MRCC Mumbai is the designated Focal Point for reporting piracy & armed robbery incidents. ICG has posted one officer on rotation at ISC since

2007 and has co-hosted three Capacity Building Workshops in 2011, 2017 & 2019. GoI is voluntarily contributing to the ISC and the contribution has been enhanced to US \$ 100,000/- per annum for a period of three years w.e.f FY 2020-21.

- (b) HACGAM. ICG is a founding member of HACGAM and ICG is the Chair of the Working Group on SAR. ICG hosted the 8th HACGAM in 2012 in New Delhi and will be hosting the 17th HACGAM in 2022. ICG has also developed the website of the forum which has been launched in trial mode.
 - (c) IORA. ICG has been nominated as the Implementing Agency under the Indian Ocean Rim Association (IORA) MoU for Coordination and Cooperation of Search and Rescue Services in the IOR.
 - (d) SACEP. ICG is the Competent National Authority for Marine Oil and Chemical Pollution Preparedness and Response and the National Operational Contact Point responsible for the receipt and transmission of pollution reports.
15. Overseas Deployments. Ship visits constitute an important component of ICG outreach and interactions with partner agencies. ICG ships have visited Australia, Bahrain, Bangladesh, Indonesia, Kenya, Madagascar, Malaysia, Maldives, Mauritius, Mozambique, Myanmar, Oman, Qatar, Reunion, Saudi Arabia, Seychelles, Singapore, Sri Lanka, Tanzania, Thailand and UAE in the IOR. Apart from IOR countries, ICG ships also visit Brunei, Cambodia, Philippines, Hong Kong, Japan, Laos, South Korea and Vietnam. These Visits have helped ICG earn recognition as a major law enforcing agency in the IOR. During these visits cooperation and training in areas of Maritime Search & Rescue, Marine Pollution Response and Maritime Law Enforcement has remained in focus. ICG has also hosted Coast Guard ships from Australia, Bangladesh, Indonesia, Japan, South Korea, USA & Vietnam for professional engagements and joint exercise.



Port calls by ICG ships

CAPABILITY BUILDING EFFORTS OF ICG IN IOR

16. ICG has been consistently engaged in capability building of Coast Guards and maritime agencies of IOR. ICG has assisted in the setting up and development of the Coast Guard/ Maritime Agencies of Bangladesh, Maldives, Malaysia and Sri Lanka. Further, ICG has been conducting specialised courses and training for FFCs in IOR as follows:-

- (a) Maritime Law & Ops Course. ICG has been conducting the Maritime Law & Ops Course for Officers/ Personnel at Coast Guard Training Centre, Kochi under the ITEC programme of MEA. The course is of 04 and 03 weeks duration for officers and sailors respectively. The course is conducted twice a year to facilitate participation of maximum FFCs. So far, trainees from Bangladesh, Maldives, Myanmar, and Sri Lanka have undergone the course along with trainees from Benin, Cameroon, Ghana and Nigeria.



Participants of Maritime Law and Ops course

- (b) Customised SAR Training. ICG has conducted customized training on M-SAR for officers and sailors from Bangladesh, Maldives and Sri Lanka.
- (c) Training on Pollution Response. ICG has conducted IMO Level I and II Course on Oil Spill Preparedness and Response for officers and sailors from Maldives and Sri Lanka.
- (d) Participation as Observers in National Exercises. ICG conducts National Level exercises on M-SAR and Marine Pollution Response (MPR) with participation of all national stakeholders. Partner agencies of FFCs also participate in these exercises as observers. During the last MPR exercise (NATPOLREX-19), 24 international observers from 19 countries had participated while in the last M-SAR exercise (SAREX-20), 23 observers from 19 countries participated.
- (e) Search and Rescue Communication Exercise. ICG MRCCs conduct 'SARCOMEX' with nearly 35 foreign MRCCs to strengthen the Regional SAR services and enable faster coordination and response in case of any emergency.

CAPACITY BUILDING OF FRIENDLY FOREIGN COUNTRIES

- 17. Besides providing training, ICG has also extended support towards capacity building of FFCs which has generated enormous goodwill for India. Prominent efforts of ICG are as follows:-



Handing over ceremony of IBs at Maputo

- (a) Deputation of aircrew since 1990 and transfer of Interceptor Boat (IB) in 2001 to Mauritius.
- (b) Gifted decommissioned Offshore Patrol Vessel to Sri Lanka in 2017 and subsequent support through supply of spares.
- (c) Positioned Advanced Light Helicopter detachment in 2010 and facilitated gifting of IB in 2019 to Maldives.
- (d) Positioned 01 Dornier aircraft at Seychelles from Oct 10 to Jun 13 and has also facilitated gifting of IB to Seychelles Coast Guard along with assistance in its maintenance.
- (e) Facilitated gifting of 02 IBs & positioned afloat support team at Mozambique in 2019 to assist in operation and maintenance of the IBs.

TANGIBLES OF ICG COOPERATIVE EFFORTS.

18. The cooperative efforts of ICG has resulted in enhanced confidence and mutual trust with partner agencies. Points of Contact have been established and regular information exchange on SAR and combating maritime crimes like drug running is being exchanged. Prominent recent operations which highlight the necessity of Coast Guard cooperation are as follows:-

- (a) Drug Trafficking. In the past two years, based on information shared by ICG, huge quantities of drugs have been seized by



ICG ships engaged in fire-fighting operation: MT New Diamond

Sri Lanka and Maldives from fishing trawlers operating deep at sea. Sri Lanka Navy and Coast Guard have seized 757 kgs of drugs while the Maldives Coast Guard has seized 74 kg of drugs.

(b) Marine Pollution Response.

(i) Assistance to Mauritius. In response to a request of the Government of Mauritius (GoM) for assistance in dealing with the environmental crisis due to oil spill on its south-east coast a ten-member ICG specialist pollution response team along with pollution response equipment was deputed to Mauritius for supplementing efforts to contain the oil spill from bulk carrier MV Wakashio.⁴

(ii) Assistance to Sri Lanka. ICG has assisted the Sri Lankan authorities thrice with regard to preventing and combating oil pollution. In the first instance, ICG undertook pollution response operations in Galle harbour in Sep 06 post capsizing of MV Amanat Shah. Subsequently, in Apr 17, ICG ship Shoor rendered assistance in extinguishing fire onboard MSC Daniela off Colombo after engaging in sustained firefighting operations

lasting for nearly 48 hrs. Lastly, in Sep 20 ICG launched Operation SagarAaraksha and in coordination with Sri Lankan Agencies, five ICG ships carried out sustained fire-fighting operations for six days and successfully extinguished the fire onboard MT New Diamond. The successful conduct of this operation resulted in averting a major environmental catastrophe in the IOR.

- (c) Search & Rescue. ICG has been coordinating SAR operations with IOR countries and beyond. In Aug 16 ICG and Bangladesh Coast Guard (BCG) coordinated rescue of 257 Indian and 66 Bangladeshi fishermen and expeditiously repatriated them at sea. ICG also coordinated the emergency onboard MV Faneromeni, a Greek flagged vessel which reported explosion and fire in Aug 20 while in position more than 900 nautical miles west of Kochi. The operation was coordinated by MRCC (Mumbai) through vessels transiting in area which reflected ICG's capability in handling such emergencies.

CONCLUSION

19. Hon'ble Prime Minister, Shri Narendra Modi has enunciated India's vision for the IOR as SAGAR. The backbone of SAGAR's architecture is cooperation and highlights both security framework for the Indian Ocean as well as regional integration with emphasis on Ocean Economy. In sync with the nation's strategic policies, ICG has taken the lead in forging strong bilateral relationships along with meaningful regional cooperation with the littoral States in IOR. With Golfocusing upon further strengthening and empowering the ICG, this young and vibrant maritime service is expected to grow further and leave even a bigger imprint in the IOR as a truly 'Dependable and Professional Partner'.

ABOUT THE AUTHOR

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ENDNOTES

- 1 Dr. Devakumar Jacob (May 2014), India's Maritime Heritage and its Milestones, International Journal of Scientific and Research Publications, Volume 4, Issue.
- 2 Dr. Dr.PrabhakaranPaleri (Dec 2007), Role of the Coast Guard in the Maritime Security of India, second edition.
- 3 Sam Bateman (Jan 2002), Coast Guards: New Forces for Regional Order and security, Asia Pacific Analysis from East-West Centre No.65.
- 4 India Strategic (Aug 2020), ICG Deputes Pollution Response Team to Fight Marine Pollution at Mauritius, Retrieved from India Strategic: <https://www.indiastrategic.in/2020/08/17/icg-deputes-pollution-response-team-to-fight-marine-pollution-at-mauritius/>

INDIAN NAVY: AN ATMANIRBHAR JOURNEY FROM 1960S TO 2020

By Captain Deepak Nair

“Everyone wants to be strong and self-sufficient, but few are willing to put in the work necessary to achieve worthy goals.”

– Mahatma Gandhi

While India gained its independence on 15 August 1947, the seeds of an Indianised Navy were sown way before in January 1947 by a British citizen, Patrick Blackett. A renowned British physicist who had pioneered naval operational research in the British Navy during the Second World War, Blackett prepared a report outlining measures necessary for India to become near self-sufficient in defence production. While Blackett correctly assessed self-reliance as key to maintaining strategic autonomy in terms of foreign policy, ably supported by a strong industrial base, his analysis of requiring eighteen months to achieve it did not prove true.

The journey towards self-reliance has been long and arduous, impacted by financial limitations, international sanctions and global politics. Yet, the Indian Navy has remained steadfast in this mission. Taking a cue from what Dr APJ Kalam had once said, the dream to achieve self-reliance in all aspects of maritime operations was one which did not let the Navy's leadership to ever sleep. The commitment was espoused even at the individual level as much as it was ingrained into the very ethos of the organisation. Notwithstanding the considerable challenges, such an attitude ensured continuous investment of two key elements - first being the financial capital and second, the human capital, which enabled steady improvement and positive outcomes. The unique involvement of the Navy, both, as the vendor as well as the buyer, enabled a progressive model of indigenisation to be successfully implemented.

Anyone who has spent time at sea will vouch that, in addition to 'the proverbial enemy', there is another threat which permeates across peace and war, and that is the sea itself. A deadly mix of salt, water, multi-dimensional motion, oil, ammunition and electricity, all packed into a box of steel, makes routine tasks difficult and the difficult, nearly impossible. While hulls can be strengthened with better steel and engines made

more powerful, making electronic systems operate reliably in such hostile environment is exponentially more complicated. It is, therefore, no surprise that unlike the float and move components, which saw early success, the journey to achieve self-reliance in terms of fight component has been relatively arduous. The Navy persevered, and like the confrontation between the stream and the rock, which the stream always wins – determination, professionalism and self-confidence has now resulted in success.

The first major step on this path was when the Navy took a decision to move away from analog systems, already fitted on the first Leander class ship, to digital systems manufactured by the Dutch company, Signal For subsequent ships. Despite objections from the ship builder and Naval Architects within the Navy, the higher leadership was able to discern the long term advantages, and pushed ahead. This culminated in an agreement between Signal Of Holland and Bharat Electronics (BEL), Bengaluru, which has enabled the latter to subsequently manufacture radar systems like APARNA, LW-08 and DA-08. These systems remained the mainstay of Naval radar systems for years, and BEL (Bangalore) has now achieved adequate capability to supply one of the world's most advanced radar systems - MF-STAR, for the next generation of naval frigates.

The Indian Navy has also achieved self-reliance in terms of technology as well as manufacturing in the niche field of sonar systems. This was made possible by a synergetic relationship between the Navy, Naval Physical and Oceanographic Laboratory (NPOL), a premier DRDO laboratory dealing with underwater acoustics and M/s BEL (production agency). The difficulties in making western-origin sonars work in tropical waters and rapid advancement in technology convinced the Navy to indigenise underwater sensors. The journey, which started in 1976, was excruciating, but bold decisions at the highest level helped the Navy navigate this project through difficult waters. Facilitating the participation of highly specialised individuals, alongside teams from DRDO and the academia, all driven by a shared single-minded focus resulted in the development of APSOH, an indigenously designed, developed and manufactured world class sonar. Since then, every Indian Naval ship has been fitted with indigenously sonars, comparable with sonars operated by leading navies of the world, which have been built on the efforts of this initial team.

Amongst all the components on a warship, Electronic Warfare (EW) systems and Computer Aided Action Information Organisation Systems (CASIO) function at the very cutting edge of technology. Thus, while leading firms are everready to sell these systems, they remain unwilling to share the technologies within. Considering the complex technologies involved, a staged development model was adopted by the Navy for both these systems. While the first set of systems, such as Ajanta and EMCCA, were satisfactory, subsequent generations of these systems have surpassed expectations. Today, all newly inducted assets employ indigenously built Combat Management Systems (CMS) and large ship EW Systems which are comparable, if not better, than what is available worldwide.

Amongst this, the indigenous CMS program is of particular pride to the Navy due to the significant participation of the private sector, the crowning glory being successful development of CMS for the indigenous aircraft carrier by M/s Tata Power (SED). A focussed approach towards enhancing private sector participation has yielded rich dividends with M/s Larsen & Toubro supplying the Indigenous Torpedo Tube Launchers, Indigenous Rocket Launcher and Universal Vertical Launch Systems. The Development of niche technologies is today no longer the forte of the so-called big boys. MSMEs, based on experience gained by working alongside the Navy, have also made a mark by winning international contracts, beating global giants such as Thales and Saab in the process.

The Navy has also been at the forefront in initiating ground breaking projects through the inter-governmental joint-development model. The BrahMos Aerospace venture between India and Russia, set up in 1998, was able to deliver a supersonic anti-ship missile within just five years. Repeated success has proven this missile's game-changing credentials and BrahMos is today the standard fit on board IN ships. Buoyed by its success with BrahMos, the Navy is now set on course for the joint development of Barak-8 ship-borne surface to air missile (SAM) system by DRDO and M/s IAI, Israel. The induction of the Barak-8 system into the Navy, commencing with the indigenously built Kolkata class ships in 2014, has been a game changer in terms of air-defence capabilities.

When the Honourable RakshaMantri, Shri Rajnath Singh, announced an embargo on import of over 100 weapons and platforms, there was worry in certain quarters regarding its impact on the Armed Forces Capability enhancement plans. Yet, a quick perusal of the list actually reveals the triumph of the Indian Navy's indigenisation program. The sustained efforts to attain self-reliance over the past six decades has ensured that the Navy's plans, as enunciated in its Maritime Capability Perspective Plan, remain on track. Though there remains a need to enhance participation of the private sector, there is no denying the lead that the Navy has towards Be Indian, Buy Indian. One of the foremost examples of the Indian Navy's indigenisation is undoubtedly the Indigenous Aircraft Carrier-1 (IAC-1) being built at Cochin Shipyard Ltd. The IAC-1 has provided direct employment to the shipyard, MSMEs and has ploughed back most of its budget back into the country's economy. The Navy is also keen to similarly construct IAC-2, which will similarly give a boost not to the economy, but also ensure that two Carrier Battle Groups are continuously available.

The geo-political churn in the Indian Ocean Region and growing presence of external maritime forces has significantly enhanced the challenges faced by India in the maritime domain, which could also consequently impact economic growth. The desire to be Atma Nirbhar, ingrained into its very DNA, has enabled the Indian Navy to become increasingly self-reliant yet strong -strong enough to be rated as the fifth most powerful Navy in the World by the Lowy Institute Asia Power Index 2020. However, less than adequate capital investment in the Navy may see a steady erosion of this carefully nurtured indigenous manufacturing capability. With the Ministry of Defence taking a lead in the Atma Nirbhar Initiative, it is imperative that the Government continues to support the Navy and in turn, the indigenous industry, to ensure greater success in our national mission to achieve comprehensive self-reliance.

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INDIAN AIR FORCE AS AN ENABLER FOR CAPACITY BUILDING IN AEROSPACE DOMAIN IN IOR

By Air Commodore Ashish Singh, VM, VSM

INTRODUCTION

The Indian Ocean Region (IOR) consists of 33 countries, from Egypt in the West to Australia in the East. Almost dead centre lies India, its peninsula jutting out into the Indian Ocean, which takes its name from the country. The countries of this region face many common problems, ranging from natural disasters to piracy. There is distinctness about this region. The connections between the peoples of this region were first forged via land routes of trade and conquests, tremendously strengthened by the advent of maritime technology, but are yet to discover possibilities offered by the newest technology of airpower. This article shows how land based airpower of the IAF in combination with that of friendly countries of the IOR offers great possibilities of collective capacity building to face common challenges.

ENHANCING COLLECTIVE SECURITY

The IOR has multiple types of security challenges, with one third of the IOR plagued by piracy.¹ While there are institutional mechanisms grappling with this problem, current resources are inadequate. As Sarabjeet Singh asserts, “deployment of warships by nations has not had the desired effect of reducing piracy as numbers of warships on patrol at any given time are unable to deter the pirates.” One Force Commander off Somalia opined, he needed 83 frigates or destroyers with on-board air assets to ensure a 30 minute response time to pirate attacks.² He understood that airpower is a needed part of the solution. The IAF has historical experience dealing with a similar problem in a different context.

1 Gurpreet S. Khurana, “Asymmetric Maritime Threats in the IOR,” in Indian Ocean Challenges: A Quest for Cooperative Solutions, Pradeep Kaushiva and Abhijit Singh, eds., (New Delhi: KW Publishers Pvt Ltd:2013), 40.

2 Sarabjeet Singh Parmar, “The Global Challenges of Piracy,” in Indian Ocean Challenges, 74.

At the birth of the IAF, the founding members of the IAF were part of “Air Policing” operations in the North West of the country.³ This policy was a part implementation of “Air Control” first implemented by the British in Mesopotamia (present day Iraq). To govern the wilder regions they replaced large, expensive, and slow ground expeditions with a fast air dependent response, supported by a few armoured cars which nipped troubles in the bud. The cost of policing Mesopotamia fell from 20 million pounds in 1922 to near four million pounds by 1925.⁴The Royal Air Force succeeded in achieving the same task at one fifth the cost.

A similar policy of using coast and island based air power for “maritime policing” can save tremendous cost while providing responsive security. While the concept can work for each nation individually, it has exponential benefits if applied collectively. All nations of the IOR do not have the same aerial capabilities, but most have at least vessels capable of coastal defence. These can work in concert with IAF’s airpower strengths, as most piracy incidents take place near coastlines, not on the high seas.⁵ The IAF is a “balanced” Air Force with a mix of all capabilities. The IAF could share some of these with its friends, flying out of its own mainland/island territories and utilizing the friendly air force/civil airfields to respond quickly to common emergent threats. The cost savings will result due to fast speed of response, small numbers of aircraft required in any given area due to large radii of action, and small ground support mechanisms. These advantages were exactly those which contributed to Air Control’s success.⁶What is needed are institutional mechanisms, minimum ground support infrastructure (airstrips), and interoperability. IAF can lead in the development of this concept, for concept development would be the start point, followed by testing the concept.

3 Air Chief Marshal PC Lal, My Years with the IAF, (1986, repr.,New Delhi: Lancer Publication:2008),12-13.

4 Derek J P Waldie“, Relations Between Army & RAF 1918-1939,” PhD Diss., (London : King’s College London, 1980),205 and David E Omissi, Air Power and Colonial Control, (Manchester: Manchester University Press,1990)21-37. The task originally being performed by more than 100000 troops was now performed by eight squadrons of aircraft, nine battalions of troops, local levies, and three companies of armored cars.

5 See piracy maps at <https://www.icc-ccs.org/>

6 Air Control worked best in ungoverned / open ones, but failed in urban areas. To some degree, the seas are analogous to ungoverned areas.

This concept of coastal / island based airpower can work not only for asymmetric threats like piracy, but also for higher levels of conflict. Nations with island territories accrue exponential advantage. For India, administrator scholar Sanat Kaul asserts “the geographical position of Andaman and Nicobar Islands is such that being only 80 miles from Straits of Malacca it is like an unsinkable super carrier...with 4 airstrips in these islands there may be no need to keep an aircraft carrier in the Bay of Bengal.”⁷ The Indian Ocean is littered with islands and island based airpower offers all advantages of airpower, but with distributed risk as compared to the increasing vulnerability of aircraft carriers in the face of evolving offensive technologies. ⁸Additionally, not all countries can afford expensive aircraft carriers. Thus, IOR air forces can provide an alternate security solution via island bases which nations can share towards collective security. Large air forces like the IAF could provide aircraft when needed, drastically reducing other nations’ costs to merely maintaining these airstrips to which aircraft can deploy in times of need. This concept maximises airpower’s strengths of responsiveness and reach, while reducing costs and risks associated with ship based airpower, unaffordable by many IOR nations.

TIMELY RESPONSE TO DISASTERS

A similar template applies to disaster response. Unfortunately, the IOR “is afflicted by 70 % of the world’s natural disasters.”⁹In line with its reach, the IAF has often helped when disaster has struck.¹⁰ Airpower is the first responder due to two reasons. First, its speed of response means that it is usually the tool governments reach for immediately. Second, it has advantages in long distance transport of people. Aircraft have supplanted oceanic vessels as primary movers of people because the time taken for overland or sea transport further translates to costly

7 Sanat Kaul, Andaman and Nicobar Islands:India’s Untapped Strategic Assets, (New Delhi: Pentagon Press,2015, 14. Emphasis added.

8 Multiple airstrips means that airpower can be distributed, reducing concentrated risk in case of attack. Countries like Seychelles have 115 islands while Maldives has 26 islands, most uninhabited. Kaushiva and Singh, eds.,Indian Ocean Challenges,136, Kaul, Andaman and Nicobar Islands ,14,11.

9 Kaushiva and Singh, eds.,Indian Ocean Challenges, (i).

10 In 2020 itself the IAF transported oil-spillage machinery to Mauritius, airlifted relief material to Lebanon, sent a medical team to Kuwait, medicines to Maldives, and evacuated its own citizens (and its friends’ citizens) from Wuhan and Tehran.



logistics requirements of human sustenance.¹¹ This was especially visible in the current COVID 19 situation where the bulk of evacuations of people have been by air. Again, not every nation needs or can afford to keep heavy-lift transport aircraft. The IAF with its fleet of heavy lift aircraft is uniquely suited to move men and materials in time to make a difference. Availability of supporting infrastructure, pre-gamed exercises (both table-top and physical) amongst IOR nations, and interoperability agreements can improve Humanitarian Aid Disaster Relief (HADR) reactions with minimal response times.

LEVERAGING IAF'S TECHNOLOGICAL CAPABILITY FOR CAPACITY BUILDING

The IAF has unique advantages which stem from geography, history, and resulting culture. Geographically, the Indian peninsula sits in the middle of the India Ocean. It has historically been not just an “ocean of churn” but a civilization of churn that has serenely absorbed many cultures, leveraging this amalgamation to success.¹² The IAF is no different. It is possibly the only air force in the world, which not only has equipment from both the east and west, but is uniquely coupled with an R & D capability which has leveraged this mix to create unique solutions. Specifically, the Aircraft and Systems Establishment (ASTE) of the IAF has allowed the IAF to integrate systems irrespective of where they were invented, and develop indigenous solutions which are cost effective. India's friends in the IOR can not only benefit from the cost savings which accrue, but may join with the IAF to collaborate on projects where problems or visions are common. In the past, test pilots from the IAF have helped not just our own aviation industry (Hindustan Aeronautics Limited), but other friendly nations like Egypt in development of their own fighter aircraft.¹³ Conceptually too, the IAF has developed tactics which are not a copy of the east or west, but unique, while absorbing the best of each.

¹¹ Until the 1960s ocean liners were the prime mover of passengers. Aircraft supplanted ocean liners in numbers of passengers crossing the Atlantic in 1958, leading to the downfall of liner services in the 1960s. Dr John Bowen and Dr Jean-Paul Rodrigue, “The Rise of Air Transportation,” at <https://transportgeography.org/contents/chapter5/air-transport/>

¹² Sanjeev Sanyal, *The Ocean of Churn: how the Indian Ocean Shaped Human History*, (N.P.: Penguin Books, N.D.), Kindle Edition.

¹³ Gp Capt Kapil Bhargav (Retd.), “Messerschmitt's HA-300 and its Indian Connection,” at <http://www.bharat-rakshak.com/IAF/history/1960s/1264-kapil-bhargava-ha300.html#gsc.tab=0>. The first flight of the HA 300 fighter was piloted by this exceptional IAF test pilot.

To manage its diverse fleet of platforms, the IAF has set up multiple Base Repair Depots (BRDs), each specializing in servicing and repairing a type of aircraft/ equipment. The IAF can offer its BRDs to either act as a servicing centre for similar types of equipment, or offer its facilities where friendly nations can send technical teams whom it can both train how to service equipment, as well as allow them to service their own equipment using its test benches and lines. Alternatively, the IAF could send training teams to these nations. It must emphasize that it is willing to help capability build up for its friends, rather than just provide short fix solutions.

From a bird's eye view, the Indian peninsula can be visualized as the pillar supporting an air bridge. This peninsula, located in the center of the Indian Ocean, juts into the ocean. Thus, most east-west IOR air traffic either overflies India or lands at one of its airports for refuelling. The IAF can additionally offer its military airfields as transit halt points for the same type of military aircraft from friendly countries. The advantage is availability of IAF equipment and trained manpower in case of breakdowns. This bridge can even be entirely in the air medium. The IAF's aerial refuelling aircraft can provide fuel in the air to military aircraft transiting Indian airspace, allowing long hop deployments of friendly countries, saving them money and time.

Geography offers another type of facility. India is blessed by every type of terrain, from the highest mountains, vast expanses of oceans, deserts, and jungles. The IAF has extensive experience in flying over every type of terrain. It also possesses air-ground firing ranges in each of these types of terrains. While some nations do not possess any ranges, very few nations possess all types. Some friendly nations already utilize these facilities. The IAF can extend these unique facilities; air-ground /air-air firing ranges, as well as terrain specific airspace to others who may want to use them.

Training cooperation offers a tested mechanism for capacity build-up. The IAF can increase the type of courses it offers to foreign countries to include technical training, flying training, tactical exercises, and table-top exercises. It can also offer to deploy its training teams or individual instructors to nations which desire them.

CHALLENGES AND MITIGATIONS

Translating ideas to practice is difficult. There are multiple challenges to IOR air forces getting together. First, there is no existing concept of IOR security using land based airpower. This consciousness will have to be built. The IAF will need to play a lead role in first proving this concept in its Area of Responsibility (AOR). Next, it will have to leverage its “soft power” of attraction to make other nations realize that there are economies of cost in such collective solutions.¹⁴ It already has historical experience of coastal defence, having performed this role during World War II from 1940 to 1942, defending not just the mainland, but also deploying to Port Blair in the Andaman and Nicobar islands.¹⁵

Next, the disparity of aerial capabilities amongst nations may act as an impediment. Not every nation has airpower to offer to a collective effort. Instead, this disparity must be seen as an opportunity. Since the countries with the smallest air forces have the most to gain, the IAF could engage with them bilaterally first, proving that its unique strengths are beneficial. The institutionalization of such ideas amongst a bigger set of countries would follow as the concepts proved their success.

Traditionally, there are proven challenges to militaries working together. Militaries usually group together in the face of common interests or common threats. However, every member of a coalition/alliance/group has differing levels of motivation. More importantly, the operational level difficulties of coalitions include differences in culture, language, tactics, and logistics requirements.¹⁶

All four difficulties have mitigation solutions. Culturally, the nations of the IOR have more in common than those outside, with India part of

14 Term coined by political scientist Joseph S. Nye.

15 Pushpinder Singh, *Himalayan Eagles: History of the Indian Air Force, Vol I*, (New Delhi: The Society for Aerospace studies, 2007), 62- 77. A total of six Coastal Defence Flights were raised and they guarded against the approach of Japanese ships and submarines.

16 Kathleen J. McInnis, “Lessons in coalition Warfare: Past, present and implications for the future,” *International Politics Reviews* (2013) 1, 78–90, 81 at <https://doi.org/10.1057/ipr.2013.8> and Brigadier J.P. Riley British Army, “The partnership of unequals: A short discussion on coalition war,” *Defence Studies*, (2002), 2:3, 103-118, DOI: 10.1080/14702430208405042

their cultures.¹⁷Most importantly, while soldiers of many nations are limited to only their local languages, almost all air forces use English as lingua franca. This factor greatly increases interoperability amongst air forces. Exercising together will solve the tactics problem. Infrastructure is one of the biggest limitations of air operations, specifically base dependency. The IAF can take the lead in its expertise of runway and Advanced Landing Ground construction to develop basic facilities in its own islands, and additionally help partner nations in doing so.

CONCLUSION

While 70 percent of the Earth's surface is covered by water, and 30 percent by land, the air domain envelops 100 percent of this surface. This gives the practitioners of airpower holistic insights as they apply the tools of their power in air, on land, and on the sea. The IAF can use its untapped potential to increase collective security in the Indian Ocean. It can use land based airpower for coastal and oceanic defence, using island chains as extended bases. This security can vary from providing a responsive mechanism against piracy, to quick response for disaster management, and extend to regular war. It is best if the control of oceans is a collective effort amongst the IOR nations which share common threats ranging from piracy to natural disasters. Towards this end, the IAF can greatly help IOR nations in capacity building. Its technological prowess and unique access to eastern and western systems allows cost effective solutions which can also work to the advantages of other countries. It can offer its technical as well as training facilities to both provide services and transfer HR capability. It can also share its geographically diverse airspace and firing ranges for partner nation training. Its airbases can function as transit halts for friendly foreign military aircraft. Its air refuelling tankers can allow quick deployments for the militaries' fighters. Translating ideas into practice would need initial bilateral mechanisms growing to multilateral arrangements. Here, once more the IAF can help develop air bases on islands and offer its aerial capabilities for nations with smaller air forces. The beginning of all great things starts with new ideas. This forum presents a few.

¹⁷ For example, in the Western limit of the IOR, the Egyptians call the Imli fruit Tamr-e-Hind (fruit from India), while in the East, Indonesians enact the Ramayana in Bali. Sanjeev Sanyal explains the interconnectedness of the IOR very well in Ocean of Churn.

ABOUT THE AUTHOR

END NOTES

- 1 UN News, 18 September 2020, <https://news.un.org/en/story/2020/09/1071192>
- 2 Times of India, 31 October 2019, <https://timesofindia.indiatimes.com/india/rising-sea-may-put-36-million-indians-at-risk-by-2050/articleshow/71834444.cms#:~:text=By%202050%2C%2036%20million%20Indians,based%20research%20group%20Climate%20Central.>
- 3 Anthony Davis, Why Asia is losing its war on drugs, Asia Times, 19 November 2020, <https://asiatimes.com/2020/11/why-asia-is-losing-its-war-on-drugs/>
- 4 Mizzima, Myanmar's illegal drug crisis a 'serious issue', says expert, 24 August 2020, <http://mizzima.com/article/myanmars-illegal-drug-crisis-serious-issue-says-expert>
- 5 Thomas Fuller and Joe Cochrane, The New York Times, 14 May 2015, <https://www.nytimes.com/2015/05/15/world/asia/burmese-rohingya-bangladeshi-migrants-andaman-sea.html>
- 6 Stable Seas: Bay of Bengal, January 2020, <https://www.stableseas.org/sites/default/files/stable-seas-bay-of-bengal-executive-summary.pdf>
- 7 Amruta Karambelkar, Chinese Involvement in IUU Fishing, 25 September 2020, <https://www.vifindia.org/print/8092?via=Azure>

- 8 Macfadyen, G., Hosch, G., Kaysser, N. and Tagziria, L., 2019. The IUU Fishing Index, 2019. Poseidon Aquatic Resource Management Limited and the Global Initiative Against Transnational Organized Crime.
<https://globalinitiative.net/wp-content/uploads/2019/02/IUU-Fishing-Index-Report-web-version.pdf>
- 9 Huma Siddiqui, Chinese trawlers on the prowl in the Indian Ocean: IUU pose the greatest maritime threat
Financial Express, 8 December 2020, <https://www.financialexpress.com/defence/chinese-trawlers-on-the-prowl-in-the-indian-ocean-iuu-pose-the-greatest-maritime-threat/2145847/>
- 10 The United States Coast Guard, Illegal, Unreported and Unregulated Fishing Strategic Outlook, September 2020, https://www.uscg.mil/Portals/0/Images/iuu/IUU_Strategic_Outlook_2020_FINAL.pdf
- 11 Ibid.
- 12 Bertil Lintner, Rohingya refugees becoming Palestinians of Asia, Asia Times, 26 August 2020, <https://asiatimes.com/2020/08/rohingya-refugees-becoming-palestinians-of-asia/>
- 13 Bobo Lo, GLOBAL ORDER IN THE SHADOW OF THE CORONAVIRUS: CHINA, RUSSIA AND THE WEST, Lowy Institute, 29 July 2020, <https://www.lowyinstitute.org/publications/global-order-shadow-coronavirus-china-russia-and-west>
- 14 Dipanjan Roy Chaudhury, The Economic Times, 30 December 2016, Chinese company bags Maldivian Island on a 50-year lease
<https://economictimes.indiatimes.com/news/politics-and-nation/chinese-companies-bags-maldivian-island-on-50-year-lease/articleshow/56245729.cms>
- 15 Rahul Roy Chaudhury, Strengthening maritime cooperation and security in the Indian Ocean, IISS, 6 September 2018, <https://www.iiss.org/blogs/analysis/2018/09/maritime-cooperation-indian-ocean>

CHAPTER 3

COOPERATION





HUMANITARIAN ASSISTANCE AND DISASTER RELIEF (HADR) AND MARINE POLLUTION RESPONSE ACTIVITIES : INDIAN OCEAN REGION

By Colonel Jaswinder Singh

OVERVIEW

The Indian Ocean, with an area of nearly 2.8 million square miles, is the third largest water body in the world covering about 20% of the Earth's surface. Its northernmost extent is the Persian Gulf. It extends upto Antarctica in the south, Africa forms the western wall, while Myanmar, Malaysia, Indonesia and Australia border it towards its east. In the southeast and the southwest, the Indian Ocean joins the Pacific and the Atlantic Oceans respectively. It would be observed the Indian Ocean primarily washes the shores of the developing countries. The peninsular landmass of India extending over 1500 Km, characterises the Indian Ocean, gives its name and bifurcates the northern part into two branches, the Arabian sea and the Bay of Bengal. 80% of the world's trade movement is through the IOR and at any point of time more than 200 ships are in transit through the Indian Ocean.

Natural disasters have always posed severe problems for nations. The Indian Ocean Region today increasingly faces threat to its prosperity and growth from the rising sea levels, severe droughts, melting of polar caps, other frequent devastating natural and man made disasters. Nations in the IOR are thus increasingly expected to ensure sustained and agile operational readiness for providing Humanitarian Assistance and Disaster Relief (HADR). Clubbed with this is the issue of marine pollution. One of the major impacts of marine pollution in the IOR has been its effect on climate change. Every year, thousands of marine flora and fauna get destroyed due to indiscriminate dumping of litter in seas.

HADR OPERATIONS IN IOR

The Indian Ocean Region (IOR) is sometimes called the “World’s Hazard Belt” as it is prone to disasters, both natural and man-made. Blessed with a long coastline of 7516 km, the Indian subcontinent often bears the brunt of natural disasters like cyclones, floods and tsunami with 5700 km of this stretch being prone to such vagaries of nature. This mandates India to develop a well-planned holistic and technology based erudite response in collaboration with other nations, instead of a mere precautionary philosophy. Today, HADR operations form the core competency of armed forces world over.

Before the unfortunate 2004 Asian Tsunami, leading to enormous swaths of destruction in the Indian Ocean littorals up to the coast of Africa and claiming thousands of lives, Indian disaster response was largely reactive and ad-hoc in nature. Major countries affected were Indonesia, Malaysia, Thailand, Myanmar, Indian coast, Sri Lanka, Maldives, Seychelles and Somalia. The death toll was approximately 2,27,898 people. In response, the Indian parliament passed the Disaster Management Act in December 2005 which led to the establishment of the National Disaster Management Authority (NDMA) as the principal coordinating authority for disaster response by both civilian and military agencies. By establishing the NDMA, the Indian government had signaled a shift from a responsive and ad-hoc approach, to one based on proactive planning for potential disasters.

Over the years Indian agencies in general and armed forces in particular have become increasingly enmeshed in providing assistance within and beyond the confines of the national border. The HADR missions abroad, therefore, need careful deliberations, prior planning and a great synergy between various services in the armed forces. Management of disaster risks is particularly urgent in the IOR because it is home to small island nation states and developing littoral countries with high population densities, which are hit much harder due to the lack of resources and assets to handle the calamity².

The Indian Armed forces has launched a massive HADR effort to help not only its own states of Tamil Nadu, Andhra Pradesh, Andaman and

² 2 Disaster Risk Management by IORA <https://www.iora.int/en/priorities-focus-areas/disaster-risk-management>

Nicobar (Operation Madad and Sea Waves) but also, Sri Lanka (Operation Rainbow), Maldives (Operation Castor), and Indonesia (Operation Gambhir). In addition, HADR operations in IOR comprise Indian assistance to Malaysia for Flight MH370, Malaysian Airliner Search MH370 in Mar 2014, Male Water Crisis in Dec 2014, Evacuation from Yemen (Op RAHAT) in Apr 2015, Op SAMUDRA MAITRI, Indonesia in Oct 2018, Humanitarian Assistance to Sri Lanka in May 2016, Medical Relief Bricks to Malawi in Jun 2016 and contained fire on board Sri Lankan oil tanker in Sep 2020. As part of international outreach for COVID-19 response, Medical teams have been provided and deployed at Maldives, Kuwait, Mauritius and Comoros apart from assistance in terms of Medical stores and items to China, Bhutan and Nepal.

HADR STRATEGY IN IOR

Under the Indian Ocean Rim Association (IORA) Action Plan 2017-2021, the development of Disaster Risk Management (DRM) in IORA has been the center of attention. The Core Group on DRM, chaired by India for a period of two years, is tasked with leading the formulation of a work plan for this priority area, with the aim to enhance cooperation and develop resilience in the IOR. Furthermore, the Core Group (Indonesia, Mauritius, Mozambique and Sri Lanka) along with Member States, are currently in the process of finalising the regional work plan and the IORA Guidelines for the HADR.

India's vision for the Indian Ocean is encapsulated by the concept of SAGAR (Security and Growth for All in the Region). While each of the elements of SAGAR requires equal attention, developing an effective response mechanism to address humanitarian crises and natural disasters is one of the most visible elements in India's evolving Indian Ocean strategy.

Assistance to Friendly Foreign Countries (FFCs). In recent years, India has gradually increased its HADR operations in neighbouring countries and developed capabilities of its armed forces, keeping in view the natural disasters that frequently torment nations in the Indian Ocean³. A tool of soft power, HADR by armed forces in the international domain, involves even a wider spectrum of issues which need careful consideration.

³ Humanitarian Assistance and Disaster Relief by Indian Armed forces by SP Naval Forces <http://www.spsnavalforces.com/story/?id=322>

Providing HADR to Friendly Foreign Countries (FFCs) is a powerful diplomatic tool that is undertaken under the premise of the larger call of humanity under the international guidelines on the use of military and civil defence assets under the Oslo Agreement 1994. A significant beneficiary of India's HADR missions have been African countries. With a vast coastline of 18,950 miles (30,497 kilometers), African littorals and Island nations are prone to natural disasters such as cyclones, floods, tsunami, typhoons, earthquake, and droughts.

By remaining at the forefront of HADR operations in coastal areas over the last decade, Indian Navy continues to maintain credible HADR capability, and promote capability development and coordination between regional navies for combined HADR operations. Towards this end, as a part of Indian Ocean Naval Symposium (IONS) initiatives in 2014, the Indian Navy assumed the chair of the IONS Working Group (IWG) on HADR, and subsequently formulating a way ahead for developing coordinated HADR response among IOR navies.

MARINE POLLUTION : OVERVIEW

Marine pollution occurs when harmful effects results with the entry of chemicals, particles, industrial, agricultural and residential waste, or the spread of invasive organisms into the ocean. 80% of marine pollution comes from land. Air pollution is also a contributing factor by carrying off iron, carbonic acid, nitrogen, silicon, sulphur, pesticides or dust particles into the ocean. More than eight million tonnes of plastic goes



into the oceans every year. Even Land and air pollution have proven to be harmful to marine life and its habitats. The pollution often comes from agricultural runoff, wind-blown debris and dust⁴.

Ships can pollute waterways and oceans in many ways. Oil spills can have devastating effects and probably the most emotive of marine pollution events. Deep sea mining is a relatively new mineral retrieval process that takes place on the ocean floor. As with all mining operations, deep sea mining raises questions about environmental damages to the surrounding areas. Marine debris, also known as marine litter, is human-created waste that has deliberately or accidentally been released in a sea or ocean. Floating oceanic debris tends to accumulate at the center of gyres and on coastlines, frequently washing aground, when it is known as beach litter or tide wrack. Deliberate disposal of wastes at sea is called ocean dumping.

Every year, thousands of marine flora and fauna get destroyed due to indiscriminate dumping of litter in seas⁵. The research, published in Endangered Species Research, sheds light on the true threat of plastic pollution to marine turtles, which also eat plastic rubbish that looks like prey. According to figures cited by United Nations, there will be more plastic than fish in the world's oceans by 2050 unless people stop littering the seas with single-use plastic items such as plastic bottles and bags. The marine life mistakenly consume plastic debris because the tiny bits of floating plastic (balloons, plastic bags) resemble their prey (jellyfish)⁶.

MARINE POLLUTION RESPONSE STRATEGY

Mitigation. There are two ways the overall level of marine pollution can be mitigated, either the human population is reduced, or a way is found to reduce the ecological footprint left behind by the average human. If the second way is not adopted, then the first way may be imposed as the world ecosystems falter. The second way is for humans, individually, to pollute less. That requires social and political will, together with a

4 Marine Pollution https://en.wikipedia.org/wiki/Marine_pollution

5 https://en.wikipedia.org/wiki/Marine_debris For shipping of waste across international borders.

6 Plastic Pollution In Ocean Is Deadly, Kills Thousands Of Marine Turtles Each Year by Karanvir Singh <https://swachhindia.ndtv.com/plastic-pollution-in-ocean-is-deadly-kills-thousands-of-marine-turtles-each-year-16488/>

shift in awareness so more people respect the environment and are less disposed to abuse it. At an operational level, regulations, and international government participation is needed. It is often very difficult to regulate marine pollution because pollution spreads over international barriers, thus making regulations hard to create as well as enforce.

India has been gifted with a vast marine ecosystem and biodiversity, which sustains a large number of species and the coastal populace is dependent on the resources from this marine ecosystem. The need for protection of this ecosystem has been recognized worldwide and UNCLOS 1982 prescribes the responsibility on the Coastal States in preserving and protecting the marine environment and associated resources. The Maritime Zones of India Act 1976, enables the Government to take measures for protection of the marine environment. In 2017, the United Nations adopted a resolution establishing Sustainable Development Goals, including reduced marine pollution as a measured goal under Goal 14.

The Coast Guard Act 1978 states that the preservation and protection of marine environment and control of marine pollution is the function of the Indian Coast Guard (ICG). The ICG has been accordingly designated in 1986 as the Central Coordinating Authority for oil-spill response in the Maritime Zones of India and Coast Guard officers have been empowered under the Merchant Shipping Act 1958, for taking necessary actions against polluters.

The Coast Guard works in close cooperation with the Indian Navy, the Department of Fisheries, the Department of Revenue (Customs) and the Central and State police forces. Preservation and protection of marine ecology and environment including pollution control is one of the Mission of the Indian Coast Guard⁷. The specialist Indian Coast Guard team is qualified in pollution response operations at sea and are capable of undertaking pollution response and cleanup operations. The various pollution response equipment such as Ocean and River Booms, skimmers, salvage barge were dispatched to combat oil spill⁸.

7 Indian Coast Guard wikipedia https://en.wikipedia.org/wiki/Indian_Coast_Guard

8 Humanitarian Assistance and Disaster Relief (HADR) in India's National Strategy Focus by sarabjeet singh Parmar https://www.researchgate.net/publication/260041843_Humanitarian_Assistance_and_Disaster_Relief_HADR_in_India's_National_Strategy_Focus

Any oil-spill response requires inter-agency coordination. Necessary preparedness measures need to be addressed collectively and towards that effort, a national level contingency plan, that provides all the necessary details and functional responsibilities of various agencies, has been prepared. The Government of India approved the National Oil-spill Disaster Contingency Plan (NOSDCP) in 1993, and allocated functional responsibilities to various ministries and departments for oil-spill response in the Maritime Zones of India.

The ports are responsible for oil-spill clean-up within port limits, and oil-handling agencies are responsible for oil-spill clean-up upto 500 meters around the oil-handling installations. The Coastal States and Union Territories are responsible for shoreline clean-up, whenever the oil-spill reaches the shore, and threatens the shoreline. The comprehensively revised NOSDCP edition-2015 was released during the 20th NOSDCP meeting held at Goa on 09 Apr 2015, the revised plan reflects current international norms and best practices, key relevant practices, key relevant national regulations and experience gained since its first publication.

Pollution Response Team : Monitoring Mechanism. As part of oil-spill response, a 10-member specialist Pollution Response Team from India along with Pollution Response equipment has been deployed at Mauritius for supplementing ongoing efforts to contain an oil spill from bulk carrier MV Wakashio on its South Eastern coastline. The assistance is in line with the Hon'ble Prime Minister of India vision "SAGAR". The purpose is containment of the oil spread in a sensitive marine environment consisting of coral reef, mangroves and endangered marine species.⁹

Regular Exercises. In addition, the Indian Coast Guard (ICG) conducts regularly the Regional Level Marine Oil Pollution Response Exercise at sea off Port Blair, Andaman & Nicobar Islands. The objective of exercise is to ascertain preparedness of ICG, resource agencies and other stakeholders in responding to major oil spill in line with provisions of National Oil Spill Disaster Contingency Plan¹⁰.

9 ICG Deputes Pollution Response Team to Fight Marine Pollution at Mauritius article published in Strategic News, published on Aug 2020 <https://www.indiastrategic.in/2020/08/17/icg-deputes-pollution-response-team-to-fight-marine-pollution-at-mauritius/>

10 Clean Sea-2017: Coast Guard conducts Regional Level Marine Oil Pollution Response Exercise published on 30 Nov 2017 <https://www.gktoday.in/topics/regional-level-marine-oil-pollution-response-exercise/#:~:text=>

Joint Collaboration to Address Marine Plastic Litter, Microplastics. Given the urgent nature and scale of the problem posed by marine litter and microplastics, India and Norway have pledged to work together to address the issue as it would require concerted action through collaboration, and cooperation. Both the nations have agreed to strengthen the “mutually beneficial” cooperation on climate and environment, with a specific focus on oceans¹¹.

CONCLUSION

Developing countries like India and its neighbours in Indian Ocean Region are highly vulnerable to climate change related man made and natural disasters response hence it will not be inappropriate to assume that despite the raising of the National Disaster Response Force (NDRF) and State Disaster Response Force (SDRF). The Indian armed forces continues to play a defining role in humanitarian emergencies in the Indian Ocean Region.

Due to its sub-continental size and its vulnerability to disasters, India has kept its forces ready to render assistance at short notice. As India moves to occupy an important position in the global community, it is in the process of bolstering its capabilities to match the rising expectations. The Indian armed forces have an extensive know-how of disaster relief operations both at home and abroad, where they have been the nucleus of relief operations¹².

Indian Coast Guard remains committed to ensure ‘Safe, Secure and Clean Seas’ not only around the Indian subcontinent but also in the Indian Ocean Region. In conclusion it suffices to state that IOR neighbours of India have unhesitatingly come to depend upon India’s ability to provide rapid relief by deploying its assets in times of natural disasters.

¹¹ Joint Collaboration to Address Marine Plastic Litter, Microplastics Published in Economic times on 17 Feb 2020 <https://economictimes.indiatimes.com/news/politics-and-nation/india-norway-pledge-to-address-issue-of-marine-plastic-litter-microplastics/articleshow/74170067.cms>

¹²

INDIA: A LEAD HADR PROVIDER IN IOR

By Group Captain Praveen Goel

The Indian Ocean has been an important medium for commerce, trade and energy, a home ground for economic development for littorals and as an oceanic route; however, the Indian Ocean Region (IOR) has also become an arena for disagreements, skirmishes and competition for regional influence by regional and extra regional powers. All major powers, such as the US, Australia, Japan, UK, India and China have sought stakes in the security of the IOR. The Indian Ocean remains a pivot, being the world's busiest trade route with almost 80 percent of the world's oil trade (maritime) passing through it.

The IOR, including its vicinity, forms the center point of around 70 percent of the world's natural calamities occurring from cyclones, earthquakes, tsunamis and floods. Addressing¹ these calamities in the IOR is one of the significant roles of the Indian Armed Forces. Instances of such calamities and regional instabilities have increased over the years (global warming may be one of the reasons), thereby demanding increased involvement of the Armed Forces for undertaking Humanitarian Assistance and Disaster Relief (HADR), Search & Rescue (SAR) and Non-combatant Evacuation Operations (NEO).

India has demonstrated its capability time and again to assume the role of a "lead responder"² in the region. Towards this, it has been effectively utilizing its resources, both civil and military, to thwart or alleviate regional or international crises. India also continues to demonstrate its capability to shore up its credentials by maintaining deployments for longer periods across the IOR as a responsible regional power. By remaining at the frontline of aforementioned missions in the IOR, the Indian military provides leadership by capability deployment and facilitates

1 Abhishek Mishra, "India's vision of SAGAR: Humanitarian assistance and disaster relief operations in the Indian Ocean Region", Feb 03, 2020, <https://www.orfonline.org/expert-speak/indias-vision-of-sagar-humanitarian-assistance-and-disaster-relief-operations-in-the-indian-ocean-region-61000/#:~:text=Addressing%20non%2Dtraditional%20threats%20in,Indian%20Navy's%20most%20prominent%20roles.&text=By%20assuming%20a%20benign%20role,and%20in%20the%20maritime%20neighborhood> accessed on Dec 10, 2020

2 *ibid*, n.1

communication between regional forces for combined operations. The Indian Air Force (IAF) plays a lead role in such endeavours.

OVERSEAS HADR MISSIONS OF INDIAN AIR FORCE

The principal role³ The Indian Air Force is to defend the nation's sovereignty and its airspace from external air threats; a secondary one is to perform HADR operations by using mutually complementing attributes of the respective services to address any disaster situation. While each service has its niche capability, the IAF is best suited for addressing time critical contingencies⁴. In case of a natural calamity in any IOR nation, IAF's heavy-lift aircraft can dispatch rescue teams along with the required relief material expeditiously. Additionally, these aircraft can assist in evacuation of people in medical distress or whose life is in danger due to the fallout of any mishap.

The IAF has been omni-present in such diverse kinds of operations because of its speedy response capability along with air power's other integral characteristics of range, flexibility and mobility. Apart from innumerable regional rescue missions worldwide, many nations have gained from the HADR and NEO proficiencies of the IAF. The examples mentioned below will help in better evaluation of its capability in augmenting confidence-building measures internationally, especially in the IOR.

HADR OPERATIONS

Even as this is being written the IAF, in support to civic authorities, is continuing unrestricted relief operations towards assistance in fighting Covid-19. Under The mission named Operation Sanjeevani, the IAF is deploying a large number of fixed wing aircraft and helicopters to deliver medical supplies and associated equipment all across the country. Since March 25, 2020⁵, it has flown hundreds of sorties ferrying around 336 tonnes of medicine, essential supplies and ration to various parts in

3 Vikas Kalyani, "The Indian Air Force and Increasing HADR Mandate", ORF Online, May 12, 2020, <https://www.orfonline.org/expert-speak/indian-air-force-increasing-hadr-mandate-65992/> accessed on Dec 11, 2020

4 Younis Ahmad Kaloo, "Being Human", Oct 2017, <http://forceindia.net/cover-story/being-human/> accessed on Dec 12, 2020

5 *ibid*, n.3

the country. In this ongoing operation, the IAF has also sent aircraft to Maldives with medical help, with more tasking expected to come its way.

Op Sanjeevani is a unique HADR tasking for it does not fall under the classic 'rescue and relief' ambit. Some recent 'classic' HADR operations conducted by the IAF are enumerated as under.

When the disastrous tsunami occurred in 2004, 'Operation Sea Wave' was launched by India towards rescue, evacuation and relief operations. An undersea earthquake on December 26, 2004 created waves as high as 65-100 ft across the IOR, with India as one of the most affected of 14 countries. Approximately 2,28,000 people lost their lives in the tsunami-hit countries with over 18,000 people being killed in India alone. The plight did not just end there as thousands of people were thrown into a life-and-death situation in island territories and the coastal states of the country by the havoc caused. The IAF reacted swiftly and swung into action on receiving the distress message. As the magnitude of the disaster became evident, the IAF pitched-in with 16 helicopters, four Dorniers, four AVROs, 15 AN-32s and seven IL-76s; this included three aerial flight refueling aircraft that were converted overnight to a cargo carrying role.

Since other countries, besides India, were also seriously impacted, the armed forces were ordered to go to their aid too. Aid to Sri Lanka was provided through Operation Rainbow By which around 329 tonnes of relief material was delivered and 882 people rescued. 'Operation Castor' was launched for providing assistance to the Maldives from where the IAF rescued 885 people and delivered 170 tonnes of relief materials. These relief ops in Sri Lanka and Maldives were carried out using two HS-748 medium-sized turboprop aircraft and six Mi-8 and Mi-17 twin-turbine transport helicopters. India even aided relatively distant nations like Indonesia for a limited duration of 90 days.

In Dec 2014, Maldives suffered a critical drinking water shortage due to the breakdown of its main RO plant and its capital (Male) required over 100 T of drinking water everyday for its sustenance till the time the plant got re-operationalised. The Indian government responded quickly by

6 *ibid*, n.3

launching Operation Neer', with deployment of three C-17 and IL-76⁷ of the IAF that airlifted 374 tonnes of drinking water over the next two days. Fiji, too, was supported in February 2016 through the dispatch of relief materials when it was afflicted by cyclone Winston. Similar help was provided to flood-ravaged Sri Lanka and Bangladesh in May 2017 when Cyclone Mora hit these nations.

In Mar 2015, when Yemen was going through a crisis due to a developing civil war situation, 'Op Rahat' was launched by India; this proved to be an example of good inter-ministerial cooperation. As estimated by the Indian government, over 4000 Indian citizens, based in different areas in Yemen, needed an immediate evacuation.⁸ A combined evacuation plan was made and jointly executed by the IAF, MEA, Indian Navy and Air India. Aircraft of Air India and Indian Naval ships rescued Indian nationals to Djibouti from Sana'a (in Yemen) and Yemen's port cities (Al Hudaydah and Aden) respectively, while the IAF employed three C-17 aircraft to further fly them from Djibouti to Kochi and Mumbai. Eleven evacuation trips were flown by the C-17s facilitating the safe evacuation of 2096 Indian nationals.

IAF'S FLEET & ITS HADR CAPABILITIES

The military assets, which are being commonly used in HADR missions, include transport aircraft, helicopters, naval ships, field hospitals and disaster relief experts. Towards this, IAF's transport and helicopter fleets have always played a silent but pivotal role. They have been deployed to a myriad of regions to transport supplies and troops for HADR missions. The fleets have been accessible and responsive, and always performed to uphold their professional reputation. Also, they are inadequate numbers and bring with them a substantial and strategically significant airlift and heli-lift capability. These capabilities⁹ are crucial for HADR, within and outside the country and act as a crucial aid to civil power. The types of IAF aircraft that are commonly involved in HADR missions include the

7 *ibid*, n.3

8 WgCdr Vikas Kalyani, "Indian Air Force : A Savior during Distress", Salute, May 02, 2020, <https://salute.co.in/indian-air-force-a-saviour-during-distress/#:~:text=Evacuation%20of%20Indian%20Citizens&text=The%20Government%20of%20India%20assessed,at%20various%20locations%20in%20Yemen.&text=As%20many%20as%2011%20evacuation,evacuation%20of%202096%20Indian%20nationals> accessed on Dec 13, 2020.

9 Wikipedia, "List of Active Indian Military Aircraft", https://en.wikipedia.org/wiki/List_of_active_Indian_military_aircraft accessed on Dec 13, 2020

giant C-17, C-130J Super Hercules, IL-76 and An-32, besides medium-lift helicopters such as the Mi-17 V5 and the Mi-17. The available assets for HADR missions in future are as covered hereafter.

IAF FIXED WING TRANSPORT ASSETS¹⁰

- IL76 X 14 – A four-engine heavy duty, long haul transport aircraft of Russian origin with a capacity to carry 40 tonnes of payload. It has a max speed of 850 kmph.
- C-17 X 11 – A four-engine heavy duty, long haul transport aircraft of American origin with a capacity to carry 40 to 70 tonnes of payload up to a distance of 4200-9000 km in one hop.
- C-130J X 11 – A four-engine American origin aircraft with a capacity to carry 20 tonnes of payload. It is capable of performing heavy drop, para-drop & casualty evacuation. It can also operate from semi prepared surfaces and short airstrips.
- AN-32 X 98 – A twin-engine turboprop, medium tactical transport aircraft of Russian origin with a capacity to carry a maximum load of 6.7 tonnes and a max cruise speed of 530 kmph.
- HS-748 X 57 – A twin-engine turboprop, military transport and freighter of British origin with a capacity of 6 tonnes of payload and a max cruise speed of 452 kmph.
- Dornier Do 228 X 50 – A twin-engine turboprop, logistic air support staff transport aircraft of German origin with a capacity to carry 2057 kg load and a max speed of 428 kmph.

IAF ROTARY WING TRANSPORT ASSETS¹¹

- Mi-26 X 3 – A twin-engine turbo-shaft, heavy lift helicopter of Russian origin with carrying capacity of 20 tonnes of payload and a max speed of 295 kmph.
- Boeing CH-47 CHINOOK X 15 – A twin-engine, tandem rotor, heavy lift helicopter of American origin with a carrying capacity of 12 tonnes of payload and a max speed of 170 kts. It is among the heaviest lift helicopters of the West. It has various means of loading cargo which includes multiple doors across the fuselage, a wide loading

¹⁰ *ibid*, n.9

¹¹ *ibid*, n.9



ramp located at the rear and three external ventral cargo hooks for carrying underslung loads. A Chinook can be transported by a C-17 and hence, a C-17 plus Chinook combination can bring to bear IAF's HADR capability to varied terrains at far-off destinations.

- Mi-17 X 223 – A twin-engine helicopter of Russian origin with carrying capacity of 4 tonnes internal and 3 tonnes external payload. It is equipped with glass cockpit instrumentation and modern avionics. It also has a weather radar, state-of-art navigational equipment and NVG-compatibility.
- DHRUV X 111 – The HAL Dhruv is a utility helicopter designed and developed by HAL. Main roles include utility, transport, recce and medical evacuation.
- Chetak/Cheetah – A single engine turboshaft, light utility helicopter of French origin, made under license by HAL, with a capacity of around 300-400 kg load.

HADR MANAGEMENT

Efficacy Of deployment of military assets in HADR operations depends on a number of factors. Initially, swift and timely response is required so as to save lives; for this, military aircraft carry out rapid mobilization and conduct search and rescue and medical evacuations. Secondly, optimum utilization of all capabilities is necessary; for example, naval ships, which can transport large volumes of cargo, are tasked for stocking. Thirdly, compatibility of various assets pressed into service has to be ensured, and lastly, effective communication and coordination between the overseas responders (military assets) and local agencies has to be ensured. It has been noticed that the last factor, i.e. communication – which is not always effective – is a major reason for delays in carrying out efficient missions.

Indian HADR response was mainly reactive, and sometimes arbitrary, in nature till the tsunami of 2004. As a lesson learnt, the Disaster Management Act was passed by the Indian Parliament that resulted in the establishment of the National Disaster Management Authority (NDMA). It is now the principal coordinating agency, with sweeping powers for any disaster response and comprises both civil and military entities. With the establishment of NDMA, the Indian government moved

towards a proactive approach, and one based on logical and systematic planning for potential disasters affecting India and its neighbours. This has been very beneficial in the IE since it has numerous littorals to whose aid India has responded numerous times. The setting up of Indian Navy's Maritime Domain Awareness Centre at Gurgaon (near New Delhi) will further enable a holistic situational picture of the complete IOR, as well as its neighbourhood and aid immensely in the planning and execution of HADR missions. It needs to be noted that Indian HADR operations are undertaken only in areas affected by natural calamities and not those that are a result of manmade conflicts.

CONCLUSION

HADR operations serve three purposes. First, they evolve from a humanitarian consideration of coming to the aid of fellow human beings in distress and highlight a nation's efforts towards such benevolent tasks. Second, they result in development of stronger bonds between nations who see boundaries on a map not being impediments to cooperation amongst peoples. Third, they highlight the core values that India stands for – that humanity is one and that India wants peace with all nations. The Indian Air Force has been in the forefront of such tasking and, with the assets that it now possesses, it has enabled India to be the first responder and a regional HADR provider in the IOR.

IORA: BUILDING MARITIME COOPERATION

*By Major General ANM Muniruzzaman (Retd)**

INTRODUCTION

¹The Indian Ocean Rim Association (IORA) is an inter-governmental organisation which works towards reinforcing regional cooperation and sustainable development within the Indian Ocean region through its 22 Member States and 10 Dialogue partners. More than 80% of the world's seaborne trade in oil traverses through the region making it one of the most vital sea lanes in the world. The priorities and focus areas of IORA are: maritime safety & security, trade & investment facilitation, fisheries management, disaster risk management, tourism & cultural exchanges, academic, science & technology, blue economy and women's economic empowerment.

²On the military level, a plethora of conflicts exist along the all important Sea Lines of Communications (SLOCs): from the Bab el-Mandeb and the Straits of Hormuz along the contour of South Asia to the straits of Malacca and – by method of geographical extension – to the South China Sea. At the Horn of Africa, consisting of Sudan, Ethiopia, Eritrea, Somalia, Djibouti and Kenya, the neglected citizens are virtually living in a Hobbesian cutthroat environment shaped by the never-ending civil wars and streams of refugees fleeing from here to there and back. In the Gulf area, conflicts are difficult to resolve: Iran is heavily investing on military resources especially with an emphasis on improving its navy. The geopolitical and geo-economical environment in the Indian Ocean after the end of the superpower conflict is becoming strategically competitive and challenging. Security problems are posed also by non-state actors like drug traffickers, small arms traffickers and pirates, especially in the Bay of Bengal and the Straits of Malacca. Illicit fishing was also pointed as a source of conflict, both in the Bay of Bengal and the Arabian Sea.

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Indian Ocean Rim Association, 2017. Available at <https://www.iora.int/en>

2 Quoted in Ian W. Porter, "The Indian Ocean Rim", African Security Review, Vol. 6, No. 6, 1997, p. 81.

³In the ancient Sanskrit literature, the Indian Ocean is termed as Ratnakara which means “the maker (creator) of jewels”. The real relevance of this name is being understood in this twenty-first century, as the strategic value of this vast ocean is making it a theatre of maritime dominance of the major powers. ⁴The Indian Ocean Rim Association defines an exclusive region in international politics consisting of coastal states bordering the Indian Ocean. It is a part of abundant diversity, in terms of culture, race, religion, economic development and strategic interests.

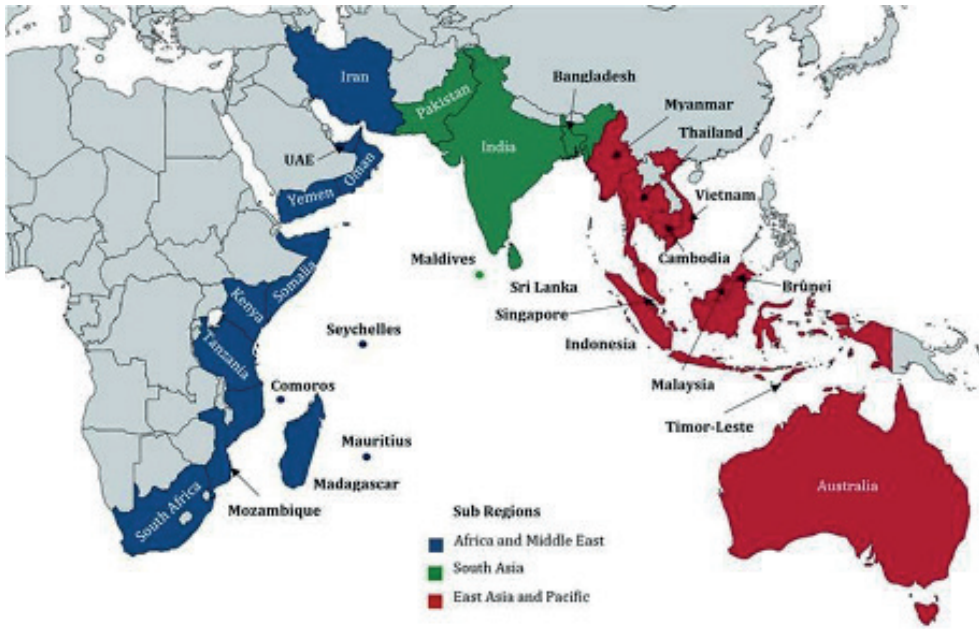
STRATEGIC IMPORTANCE OF INDIAN OCEAN

⁵The Indian Ocean is the third largest ocean in the world, covering about one-fifth of the Earth’s water surface. It is nearly 5,400 nm wide and covers an area exceeding 21 million square nautical miles. With 35 nations, as well as half dozen island nations sharing an Indian Ocean shoreline, some of the world’s busiest and most significant Sea Lines of Communication (or SLOCs) channel through these waters. The Indian Ocean hosts numerous choke points that actually channel maritime traffic connecting the Middle East, Africa, and East Asia with Europe and the Americas. From West to East, these choke points are located at Bab el-Mandeb, the Straits of Hormuz, Malacca, Sunda, Lombok and Ombai. The Indian Ocean has for decades fulfilled the role of an important transit corridor for extra-regional powers. It has served as a significant maritime transit for Russia between Europe and Eastern Siberia. It has functioned as a key transit of vital oil and gas for the energy hungry East Asian powers especially China and Japan. The Indian Ocean serves as a major maritime trade route between East Asia and Europe. It has further operated as a strategic route into the Persian Gulf for the United States.

3 Indian Ocean: New Power Game in the offing? Researchgate. Available at https://www.researchgate.net/publication/319393157_Indian_Ocean_New_power_game_in_the_offing

4 Indian Ocean Rim Association. Mauritius Trade Easy. Available at <http://www.mauritiustrade.mu/en/trade-agreements/indian-ocean-rim-association>

5 Quoted in Admiral Nirmal Verma, CNS, “India’s role in Indian Ocean: Strategic challenges and opportunities in the decades ahead” speech delivered at the Indian Maritime Foundation on December 19, 2010.



Source: The LakshmanKadirgamar Institute

EMERGENCE OF INDIAN OCEAN RIM ASSOCIATION (IORA)

The Indian Ocean region connects three politically, economically, socially, culturally diverse continents. It further strengthens the rationale for cooperation in such a huge region which does not emerge from territorial contiguity. As the globalization involves restructuring of organizational patterns beyond national states into new models, it generates new synergy and creates the possibilities of new conflicts. ‘Challenges emanating from changes in Post Cold War period have forced regional countries to overlook regional diversity, and cooperate in establishing Indian Ocean Rim Association. End of the Cold War and end of South Africa’s international isolation, global trend towards establishment of World Trade Organization, adoption of processes of economic liberalization by India and other countries, the emergence of environmental, terrorists and criminal concerns and fear of further marginalization of IORA economies within the global economy, provided impetus for the establishment of IORA. ’As President Nelson Mandela aptly put it, the natural urge of facts concerned with historical and geographical complementarities

6 Allen, Calvin H. (1999). “Regional Cooperation and the Indian Ocean Rim”. *Indian Journal of Asian Affairs*.

7 Nelson Mandela’s Rajiv Gandhi Foundation Lecture. Available at http://db.nelsonmandela.org/speeches/pub_view.asp?pg=item&ItemID=NMS224&txtstr

should broaden for including conceptual exploration of Indian Ocean Rim Association and socioeconomic cooperation and other peaceful endeavours. The IORA Charter was signed on March 5, 1997 in Mauritius with the inclusion of 14 nations to form an intergovernmental association for regional economic integration. It functions on the principle of sovereign equality, territorial integrity, non-interference in the internal affairs of the member states; peaceful coexistence; respect for the bilateral and multilateral cooperation; exclusion of divisive issues from IORA deliberations and adoption of method consensus in the decision making process.

KEY COMPONENTS OF IORA

The four key components of the IORA roadmap include:

1. Trade Liberalisation
2. Trade and Investment Facilitation
3. Economic and Technical Cooperation
4. Initiating Trade and Investment Dialogue

The Charter declares that the IORA seeks to make and expand understanding and interdependent cooperation through an agreement based, evolutionary and non-disruptive approach.⁸ There are no laws and binding contracts.

SUCSESSES OF IORA

Greater trade and investment facilitation within the members of the association has been made a top priority issue and in January 2000, a Working Group on Trade and Investment (WGTI) was created in order to help expedite these processes. The WGTI also assists in streamlining projects and gives a sense of direction to the IORA. Through the WGTI and other forums such as the Indian Ocean Rim Association Group (IORAG) and Indian Ocean Rim Business Forum (IORBF), a number of projects have been identified and are being conducted by various government agencies and research institutes of the member states.⁹ These projects are

8 Open Regionalism and APEC: Rhetoric and Reality. Journal Storage. Available at <https://www.jstor.org/stable/4410085?seq=1>

9 "Indian Ocean Regionalism: Another Non-Starter?" The Sunday Island. March 5, 2006.

based on cooperation in standards and enfranchisement, development, upgrading and management of seaports, business promotion and development, technology cooperation in the Indian Ocean Rim, development of a compendium on investment regimes, agricultural trade alleviation, foreign direct investment and bilateral payment arrangements to name but a few. ¹⁰IORA is the only ministerial-level forum that is concerned with the Indian Ocean and it also incorporates significant dialogue partners. ¹¹The flagship projects of IORA include The Indian Ocean Dialogue, The Somalia and Yemen Development Programme (SYDP), The IORA Sustainable Development Programme (ISDP), The IORA-Nelson Mandela 'Be the Legacy' Internship Programme and The IORA-UN Women Women's Economic Empowerment Project.

LIMITATIONS OF IORA

With regard to the potential of this vast regional bloc, the association has remained dormant for a prolonged time. To start with, there is extended dialogue on the magnitude of the Indian Ocean Rim itself. ¹²Differing definitions are applied to the region, and the number of states incorporated in this initiative currently stands at 32. ¹³However, the dissimilarities in state capabilities (both economic and military) are also considerable. India, Australia and South Africa each have a blue water naval capability and a booming economy, while the smaller island nations can hardly compare. Hence, convergence of interests on security concern has not been promptly forthcoming.

The attempts for promoting cooperation in the IORA floundered for several reasons:-

- There were political obstacles that excluded some IORA countries from membership and objected to any involvement of non-littoral countries.

¹⁰ Indian Ocean Rim Association. Australian Government. Department of Foreign Affairs and Trade. Available at <https://www.dfat.gov.au/international-relations/regional-architecture/indian-ocean/iora/Pages/indian-ocean-rim-association-iora>

¹¹ Indian Ocean Rim Association, 2017. Available at <https://www.iora.int/en>

¹² Rahul Roy Chowdhury, "India's Maritime Security" (Knowledge World, New Delhi, 2000) p. 30.

¹³ P K Ghosh. Maritime Security Challenges in South Asia and Indian Ocean: Response Strategies. Available at <https://www.scribd.com/document/75991384/Ghosh-Maritime-Security-Challenges-in-SAsia-Indian-Ocean>

- There was the lack of clear common interests to bring the IORA countries together. While the IORA includes about one-third of the world’s population, its people are an extraordinarily diverse lot and their countries are widely divergent in terms of economic development and national interests.
- Many IORA countries are quite poor.¹⁴ Participation in IORA activities will be expensive for them and they will require financial assistance if they are to participate. The same goes for participating in any of IONS (Indian Ocean Naval Symposium) activities by IORA countries.
- Getting around the IORA is difficult and expensive. Great distances are involved. There is a shortage of direct air routes and delegates attending meetings may have to use several airlines and pay high fares as a consequence.¹⁵ Not surprisingly and unless they were sponsored by a better-off member, most potential participants will decide that the benefits of participation are simply not worth the cost.

¹⁶These limitations have pulled IORA backward quite sometimes now and some authors even described IORA as “already dead” and it “does not have a future”.

CHALLENGES OF IORA

¹⁷The Indian Ocean region poses several traditional and non-traditional safety and security challenges including piracy, armed robberies at sea, terrorism, human trafficking, irregular movement of people, drug trafficking, illicit wildlife trafficking, trafficking of weapons, crimes in the fisheries sector like IUU fishing, degradation of ocean health, unlawful exploitation of marine resources and global climate change with its connected repercussions on environmental security.

¹⁴ Sam Bateman, “The Indian Ocean Naval Symposium: Will the navies of the Indian Ocean region unite?”, RSIS Commentaries, 17 March, 2008, p. 3

¹⁵ Ibid.

¹⁶ Peter Lehr, “The Challenge of Security in the Indian Ocean in the 21st Century: Plus ça change..?”, Heidelberg Papers in South Asian and Comparative Politics, Working Paper 13, November 2002, p. 21.

¹⁷ Priorities & Focus Areas. Indian Ocean Rim Association, 2017. Available at <https://www.iora.int/en/priorities-focus-areas/maritime-safety-and-security#:~:text=The%20Indian%20Ocean%20region%20faces,fisheries%20sector%20such%20as%20IUU>

¹⁸Maritime security has assumed a new dimension in the post 9-11 era. The importance of container security to maritime terrorism is only now being realized after a U.S. Navy search of a freighter in January 2002 led to discovery of a group of Al-Qaeda terrorist hiding inside a well equipped shipping container. The group escaped from the container shortly before the search commenced. ¹⁹This discovery prompted a rise in surveillance of ships as well as trucks carrying shipping containers leaving Afghanistan to reach Pakistani ports. ²⁰With a dramatic increase in large and small container transport by sea, the problem has grown, as these sealed containers often pass through ports without undergoing checking and are capable of containing something from human terrorist cargo to arms and ammunition. A vital adjunct to maritime terrorism is drug trafficking. With outrageous profit margins, drug trafficking is by far the foremost money making activity to fuel ever-growing terrorist activities and insurgencies around the region. It is essential to address these challenges in order to transcend the successes of IORA to a long way.

²¹The tropical Indian Ocean has experienced an increase in sea surface temperature, facing an unprecedented rise in temperature by 1.0 °C. Such trends are expected to continue due to global warming. The impacts of climate change are affecting both marine and terrene environments. Extreme weather conditions are going to increase the threats posed by natural disasters. ²²The littoral states of Indian Ocean are highly prone to various forms of natural disasters. Cyclones, droughts, earthquakes, tsunamis, floods and tidal surges are prevalent in the region. ²³The region is termed as “World’s Hazard Belt” due to ever-increasing risks posed by natural disasters and man-made disasters. According to the United Nations Economic and Social Commission for Asia and the Pacific, approximately half of the region’s natural hazards are climatic and tectonic in nature.

18 P K Ghosh. Maritime Security Challenges in South Asia and Indian Ocean: Response Strategies. Available at <https://www.scribd.com/document/75991384/Ghosh-Maritime-Security-Challenges-in-SAsia-Indian-Ocean>

19 “Inside the Ring”, Available at <https://gertzfile.com/ring010402.html>

20 “Containerisation”, www.choicegroup.co.in/html/Cntrization.htm

21 Indian Ocean Rim Association, 2017. Available at <https://www.iora.int/media/1026/third-becg-environmental-sustainability-and-the-blue-economy-020217.pdf>

22 Natural Disasters in Indian Ocean Region and Its Impact on Socio-Economy of Other Countries. Available at http://www.ions.global/sites/default/files/7f_0.pdf

23 Indian Ocean Rim Association, 2017. Available at <https://www.iora.int/en/priorities-focus-areas/disaster-risk-management>

RE-ENERGIZING IORA

²⁴The Second IORA Renewable Energy Experts Meeting was held on 3 October 2018 and it provided a platform for experts to discuss energy needs within the region, identification of hurdles in cooperation and coordination among concerned agencies and potential avenues of collaboration. ²⁵The meeting was held in parallel with the 1st General Assembly of the International Solar Alliance (ISA) and the 2nd Global RE-INVEST Meet & Expo. The renewable energy ministers of the region planned to establish a common development agenda by sharing the “Key Takeaways”. ²⁶The event also witnessed the cementing of ties between the IORA and ISA (International Solar Alliance) in the form of a Memorandum of Understanding (MoU). Indian Ocean is the third largest ocean in the world and contributes enormously to international trade and transport. The region hosts high-energy consuming countries and makes up for approximately 15% of global energy demand. The use of conventional energy resources is not sufficient for sustainable development in terms of economy and ecology. The region is rapidly emerging as a cost-competitive market for renewable energy hence the adoption of renewable energy resources and practices is of high priority for IORA member states.

WAY AHEAD: NEED FOR MULTI-LAYERED APPROACH

²⁷Maritime challenges posed to Indian Ocean Rim states must be addressed on a multi-layered basis. The most desirable format is the multilateral approach towards solving transnational crime and maintaining maritime order. ²⁸While regional cooperation between navies and coast guards must take center stage in the emerging order, non-military maritime cooperation is equally important. ²⁹Navies must

24 Events, Media & News. Indian Ocean Rim Association, 2017. Available at <https://www.iora.int/en/events-media-news/events/other/renewable-energy/2018/2nd-iora-renewable-energy-ministerial-meeting>

25 Ibid.

26 Ibid.

27 P K Ghosh. Maritime Security Challenges in South Asia and Indian Ocean: Response Strategies. Available at <https://www.scribd.com/document/75991384/Ghosh-Maritime-Security-Challenges-in-SAsia-Indian-Ocean>

28 Ibid.

29 Ibid.

reorient themselves from the existing mindset of 'preparing for war in order to ensure peace' to that of 'if you want peace and stability, prepare to cooperate.'³⁰The Indian Ocean Rim Association needs to construct the regional Work Plan and the IORA Guidelines for Humanitarian Assistance and Disaster Relief (HADR) as soon as possible in order to enhance the region's capability to deal with disaster-related concerns.

The following measures can be taken to face some of the challenges in the Indian Ocean region:-

- ³¹The establishment of Joint Maritime Centers (JMCs) and “Oil Spill Response Centers.” Interlinked joint maritime centers comprising regional navies and coast guards should be formed at important ports close to strategic choke points to enable speedy and coordinated responses to smuggling, piracy, humanitarian disasters, illegitimate migration, environmental incidents, and search-and-rescue operations, since these are crucial areas that require cooperation. The centers may additionally offer a venue for intelligence sharing. ³²These centers can join with “oil spill response centers” to combat the hazards of oil spills. Oil spills are an ever-increasing drawback with detrimental consequences for marine ecological systems. The response centers may be amalgamated with the JMCs for effective coordination and management.
- Development of marine technology and a joint strategy to ensure the safety of ports and harbors by the regional states.
- Regional states should also pursue coordinated efforts on utilization and management of marine resources, both animal and mineral, in their respective Exclusive Economic Zones, or EEZs.
- Special steps to be taken to mitigate and adapt to the impacts of climate change in the region.

30 Indian Ocean Rim Association, 2017. Available at <https://www.iora.int/en/priorities-focus-areas/disaster-risk-management>

31 P. K. Ghosh, “Let Indian Ocean United the Rim”, The Financial Express, December 12, 2000.

32 P K Ghosh. Maritime Security Challenges in South Asia and Indian Ocean: Response Strategies. Available at <https://www.scribd.com/document/75991384/Ghosh-Maritime-Security-Challenges-in-SAsia-Indian-Ocean>

- Work out a comprehensive vision plan to harness the resources of the sea which will be “The IORA Blue Economy Vision”.
- Efforts to be taken for sustenance of marine ecology and reduction of marine pollution.

CONCLUSION

³³In the Post-Cold War period, Indian Ocean states with their huge resources underneath, varied levels of economic development and vast cultural diversities have shown tremendous potential to mutually cooperate and work with each other for the growth of this region. During the last one and a half decade, Indian Ocean has changed its character altogether particularly after the collapse of Soviet Union and, in the light of globalization and liberalization. ³⁴The focus, now, is more on regional organizations which can bolster their economies not only at the regional level but also at the global level. ³⁵The regional perspective, particularly with the emergence of IORA, is meant to compliment, supplement and incorporate without any political intervention. ³⁶Regionalism with institutional foundation is the most relevant policy to have robust economic linkages among the Indian Ocean region.

33 BIPSS Peace and Security Review (Volume 4, Number 8, Second Quarter 2011). Available at http://bipss.org.bd/images/pdf/Journal/Peace%20and%20Security%20Review%20Volume-4_Number-8_Second%20Quarter%202011.pdf

34 Ibid.

35 Ashwani Sharma, “The Indian Ocean: Cold War-Post Cold War Scenario”, *International Journal of South Asian Studies*, 1 (1), 2008, p. 22

36 Ibid.

Note: An expanded version of this article was published by the author in BIPSS Peace and Security Review. (Volume 4, Number 8, Second Quarter 2011)

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COOPERATION AND STRENGTHENING ANTI PIRACY AND ANTI TERRORISM EFFORTS IN IOR

By Colonel Ajinkya Jadhav

GEOGRAPHICAL SIGNIFICANCE

The Indian Ocean is the third largest ocean on Earth, covering 68.56 million square km and spanning 10,000 km from the southern tip of South Africa to Australia. The political map of the Indian Ocean comprises 36 littoral and 20 hinterland states. The combined coastline of all the Indian Ocean littoral states accounts for nearly 40 per cent of the world's coastline, the Indian Ocean region is inhabited by about 2.6 billion people, representing 35.7 percent of the world's population in 2010, living on a quarter of the world's landmass and generating about ten per cent of the global gross domestic product (GDP). By 2030 this population will likely have added another 689 million people. The geographical position of the Indian Ocean and its strategic waterways provide the shortest and most economical lines of communication to the Atlantic and the Pacific Oceans. A unique feature of the Indian Ocean regional trade is the fact that trade between Indian Ocean littoral states constitutes only 20 per cent of the total volume, while the remaining 80 per cent is transported outside the region. This explains the strategic interests of extra-regional states in the region and the presence of their navies in the Indian Ocean.

STRATEGIC IMPORTANCE : IOR

The Indian Ocean has served as a benchmark of global politics, economics and culture for centuries. In modern times, after World War II, it emerged as a focal point for great power competition and subsequently, of global commerce as the pivot of economic growth shifted from Europe to the Asia Pacific, a feature which has since remained constant. The Indian Ocean is outlined by countries from the three continents of Africa, Asia and Australia and some island-nations in the Asia-Pacific. These countries have different histories, cultures, political systems and security concerns. What they share in common is the vast Indian Ocean, which has been a facilitator of contacts between them since the dawn of civilization. The

Indian Ocean Region (IOR) holds primacy as an important economic corridor. Of late, 'Indo-Pacific' has gained currency as a broader term, and is often used interchangeably with the IOR to denote its strategic and economic significance. Approximately two-thirds of global oil shipments, half its container traffic, and one-third of bulk cargo transit through the region. Its seabed holds some of the most valuable mineral resources and fossil fuels, which are economically critical. At present, navies of more than 40 countries are operating in this part of the world, including a host of external navies such as the United States, Russia, France and the United Kingdom. Yet, it lacks a security architecture, based on regional cooperation.

PIRACY THREAT

Piracy is an organized crime that is driven by reasoned action of the perpetrators. Piracy is sea terrorism usually characterized by violence and threats to safety of goods and occupants of ships, boats and everything in transit through the seas. Usually referred to as buccaneering, it is one of the sources of environmental risk and rather made the maritime sector a 'corrosive enclave'. Piracy is the manifestation of crime and associated thievery on the high seas with the perpetrators wielding weapons against unsuspecting commuters who are targeted for dispossession of their belongings. Historically, it has been seen that piracy has erupted in the Indian Ocean in areas close to choke points and regions marked by political instability as in the case of Somalia. The straits of Malacca and the Gulf of Aden is an important sea passage that connects the Indian Ocean with the Mediterranean Sea through the strategic choke points of Bab-al-Mandab and the Suez Canal, these are vulnerable areas and are traditionally targeted by Pirates particularly off the coast of Somalia and Yemen as there is lack of governance in these countries.

Counter Piracy Counter-piracy are the measures put in place by policymakers to manage the problems created by pirates through planning, security rethinking and restructuring or reforms, mapping out grand and military strategies, identifying the hotbeds of piracy on the high sea, funding, provision of logistics, investigation of reported cases of pirate attack, formation of tactical units, training of naval officers/naval police, monitoring and evaluation as well as policy implementation to equip the security sector in establishing safer and secure waterways for

vessels, humans and investments in the maritime sector. Counter-piracy is a military oriented endeavour which requires adequate training on manoeuvring tactics and weapons use. In this regard, militarism requires more insight into the counter-piracy by the security forces, involving both internal and external stakeholders within and outside the Indian Ocean World. It is since the majority of disgruntled elements that perpetrate the crime of piracy can hardly surrender without the use of coercion. Arguably, piracy cannot be nipped in the bud without adequate use of military options by engaging the military especially the naval officers to counter the sea robbers.

COOPERATION TOWARDS ANTI – PIRACY

- The idea of counter-piracy is that a nation that does not control her territorial waters cannot be said to have control of its national borders as attacks can come from militants or armed gangs through the sea without much resistance.
- Mitigating the problem of piracy requires timely intercepting of networks that encourage illicit drug smuggling, human trafficking for sexual exploitation and labour, as well as those that engage in the proliferation of weapons. It then means that countering piracy financing, recruitment and training within the Indian Ocean must be contained by the stakeholders through multilateral intervention mechanisms namely, promoting state building agenda in fragile states within Africa and Asia to discourage the formation of non-state armed groups that further justify governments' militarism endeavours which has been responsible for the competition for weaponry in the security markets by both states and non-state actors.
- There is a need for regional co-operations in promoting multinational operations to contain piracy, disarming the criminal gangs and bringing them to book. Hence adequate structures and organisations need to be created to institutionalise measures to counter the threat.
- The Rules of Engagement of the naval units charged with protecting the trade routes need to be coordinated and agreed on. Furthermore, a close look needs to be taken at the kind of naval vessels, which might be required to combat piracy more cost effectively.

- The use of Private Security Companies should be regulated and agreed. Shipping companies need to conform to the basic security requirements when operating in danger areas and should at all times comply with due care for their crew and cargo. They will need to invest in superior passive defence measures and adopt active measures, if required.
- Long term plans to bring the beginning of stability to Somalia, and the establishment of an effective Coast Guard, need to be drawn up and funding made available. This could be a public- private partnership involving suitably qualified private security companies.
- A consolidated Civil-Military approach which has a larger agreement by nations in IOR needs to be in place to effectively counter the Piracy threat.

MARITIME TERRORISM

Maritime terrorism can be defined as “the undertaking of terrorist acts and activities within the maritime environment, using or against vessels or fixed platforms at sea, or in port; or against any one of their passengers or personnel, against coastal facilities or settlements, including tourist resorts, port areas and port towns or cities. The advent of 21st century saw a strategic shift in the security scenario in IOR, Maritime terrorism emerged as a major security threat in the IOR. The attacks on USS Cole and the French Tanker Limburg in the Gulf of Aden in 2000 and 2002, respectively, the most horrific terrorist attacks conducted in the region were the 26 November 2008 attacks in Mumbai in which ten armed terrorists belonging to Lashkar-e-Taiba (LeT), an Islamic militant organisation, infiltrated through the west coast of India, killing over 160 people, subsequent terrorist attacks in the region include a failed attack on the Japanese VLCC M. Star which, on 28 June 2010, suffered hull damage caused due to an external explosion in the Strait of Hormuz and a brazen attack by a terrorist outfit known as Al Qaeda in the Indian Subcontinent (AQIS, an affiliate of the Al Qaeda) which successfully penetrated into a Pakistani naval dockyard in an attempt to seize the frigate, PNS Zulfiqar, in September 2014.

Overall, the above findings do not augur well for the future and as they indicate a heightened threat of resurgence of maritime terrorism in

the region. It is therefore opined that maritime security in the Indian Ocean region will continue to remain fragile and require unhindered and sustained regional naval cooperation to maintain good order and stability at sea.

Terrorism-Piracy Nexus An investigation by the United Nations (UN) in 2017 found evidence of collusion between pirates and the Al Shabaab terrorist group, including the possibility that pirates helped the latter smuggle weapons and ammunition into Somalia. In Southeast Asia, the terrorist group led by Abu Sayaff turn to piracy has resulted in millions earned via ransom payments. Its cadres have used the revenue earned for pirate activity to expand the radical organisation's presence in Southeast Asia. The terror-piracy linkage is important because it highlights the causal mechanism behind rising violence at sea. The task of maritime security agencies becomes harder, however, when the lines between terrorism and piracy begin blurring. Today's pirates are trained fighters onboard speedboats, armed not only with automatic weapons, hand-held missiles and grenades but also and global positioning systems; professional mercenaries that loop effortlessly between rent-seeking and violent acts. Their objectives are as much ideological, as they are material.

COUNTERING MARITIME TERRORISM

- After the 9/11 incident in the United States, the International Maritime Organization (IMO) had established the International Ship and Port Facility Security (ISPS) Code—a set of maritime regulations designed to help detect and deter threats to international shipping.
- India, too, has focused on the improvement of maritime domain awareness and information sharing, emphasising rapid response in dealing with criminal and terrorist threats. A new information fusion centre in Gurugram – set up as an “adjunct” to the Indian Navy's Information Management and Analysis Centre (IMAC) – has been collating, assembling, analysing and sharing data related to maritime security matters with neighbouring states in the Indian Ocean. Meanwhile, transponder systems are being installed on fishing boats, and biometric cards issued to fishermen, many of whom have become the ‘eyes and ears’ of maritime security agencies.

- There is need to enhance the counter terrorism frame work in IOR. Combating maritime terrorism revolves around four tenets of intelligence, threat levels/conditions, vulnerability assessments, and force /facility protection measures. Unfortunately, many regional states do not have the requisite capacities to combat terrorism. Not only is intelligence and data lacking; there is also the absence of expertise and knowhow. Many of the newly developed sensor technologies— including identification and authentication technology, screening and surveillance assets, and tracking and inspection systems are too costly for smaller states. What Asia needs is a maritime security framework that enables capacity building in a way that facilities and ships can be hardened at affordable prices. The solution may lie in partnerships that would help regional states leverage partner strengths to create baseline capabilities to fight terrorism. This includes measures to protect commercial shipping, marine installations and critical infrastructure.
- Adequate measures need to be in place to develop an effective intelligence network and identify linkages in the terrorist network. Efforts need to be made to identify and check the terrorist funding across the states.
- What regional states need is structured and efficient ways of investigating threats, identifying vulnerabilities, and getting stakeholders involved in anti-terrorism processes. Strong legislation that empowers security agencies to act with alacrity and defend commercial and coastal military assets is a prerequisite.

RECOMMENDATIONS

- Development of a pan IOR maritime domain awareness system to counter the nexus of Terrorism-Piracy is the need of the hour, linking all the information resources in the region could thus be the first step practical, operational level step towards achieving a comprehensive framework.
- Maritime security cooperation in the IOR has evolved and improved over the years, the multilateral associations such as Indian Ocean Rim Association (IORA) and the Indian Ocean Navy Symposium (IONS) are not traditional alliances however need further consolidation and

better understanding and frame work for building capabilities for enhanced maritime security.

- The identification of core interests of the international community of states can be the basis for joint anti-piracy and anti-terrorism measures. The threat situation caused by piracy off the coast of Somalia and in the Indian Ocean will remain particularly tense in the foreseeable future; in the field of maritime terrorism in general we still have to be prepared for worldwide terror attacks. The fight against piracy and maritime terrorism will continue to be successful only if we adopt the strategy of a “comprehensive approach”.
- The Indian Prime Minister's vision of SAGAR (Security and growth for all in the region) is an iconic step towards achieving cohesion in the IOR. Through SAGAR, India seeks to deepen economic and security cooperation with its maritime neighbours and assist in building their maritime security capabilities. For this, India would cooperate on the exchange of information, coastal surveillance, building of infrastructure and strengthening their capabilities. The consolidation of this initiative will further provide prospects of enhanced security in the region.

CONCLUSION

IOR has emerged as an important focal point for economy and trade in the world. To ensure growth and prosperity in the region it is pertinent that adequate security measures are in place against Piracy and terrorism. India owing to its geographical location is ideally suited to take the lead and is therefore coined as the ‘Net Security Provider’ in the region. Comprehensive steps to build capacities to develop capabilities and enhanced cooperation between the countries in IOR will lay the foundation for a secure and prosperous IOR.

REFERENCES

1. Maritime Security Cooperation in the Indian Ocean Region: Assessment of India's Maritime Strategy to be the Regional “Net Security Provider” – Mr Shishir Upadhyia. <https://ro.uow.edu.au/cgi/viewcontent.cgi?article=1299&context=theses1>

2. A security architecture for the Indian Ocean – Mr Sameer Patil. <https://www.gatewayhouse.in/a-security-architecture-indian-ocean/>
3. Indian Ocean Rim Association Website <https://www.iora.int/en/priorities-focus-areas/maritime-safety-and-security>.
4. Combating Piracy and Terrorism. Dr Peter Roell. https://www.files.ethz.ch/isn/163375/223_Roell.pdf.
5. Maritime terrorism in Asia : an assessment Abhijit singh. https://www.orfonline.org/wpcontent/uploads/2019/10/ORF_OccasionalPaper_215_MaritimeTerrorism-Asia.pdf.
6. Security threats and challenges to maritime supply chains. Mr Vijay Saklaja. https://www.peacepalacelibrary.nl/ebooks/files/UNIDIR_pdf-art2959.pdf.
7. A Study of the Operational Oversight of Counter-Piracy Stakeholders in Indian Ocean: Patterns and Evolution. James OkolieOsemene*. <https://www.longdom.org/open-access/a-study-of-the-operational-oversight-of-counterpiracy-stakeholders-in-indian-ocean-patterns-and-evolution-2167-0374-1000177.pdf>.

OPPORTUNITIES FOR DEFENCE PRODUCTION THROUGH DIPLOMACY IN THE INDIAN OCEAN REGION

By Group Captain Naval Jagota

INTRODUCTION

1. There are a wide range of capabilities which a Nation needs to develop to increase its Comprehensive National Power (CNP). Two such attributes amongst many which may be categorized as prime capabilities are Defence and Diplomacy. In the defence attribute there are varied elements which when combined, produce a whole and one of them is defence production. Defence and Diplomacy, which when put to work together produce an outcome greater than their sum. In recent developments in this regard, India has focussed on enhancing its capacity and capability in the field of defence production. This has further translated into a greater hard power capability providing freedom of action for practice of foreign policy towards strengthening India's National Security.

POTENTIAL FOR DEFENCE PRODUCTION THROUGH DIPLOMACY

2. Both organic and partnership development in defence production within the country and with countries in the Indian Ocean region would place India firmly on the path of greater flexibility to pursue its options. India's "Neighborhood First" initiative is an annunciation of its foreign and security policy in which the political, diplomatic and military investment has been substantial to create positive and progressive partnerships. In West Asia, India has enhanced the scope and quality of relations with Saudi Arabia, UAE and Oman and with Indonesia, Australia and Myanmar on the East and South Eastern regions. Investment in and around the Indian Ocean on the diplomatic front has created opportunities for subsequent translation in the domain of Defence Production.

3. India has a large technical and talent pool which provides the industry flexibility in the design and manufacturing process. A holistic review of past defence procurement and production policies and procedures was done to reduce the dependence on import of equipment and technology. The current policies have resulted in greater flexibility and streamlining of procedures to enter into partnerships in the area of defence production.
4. With increasing importance of designing and engineering, the value of Indian talent has also steadily grown in the international defence industry. As the Indian capacities in the defence domain increase in consonance with an expanding footprint, these considerations will also be relevant when it comes to Indian defence exports. The additional areas being explored for co-operation as articulated by the External Affairs Minister recently are in the field of Maritime Security, Maritime Ecology, Maritime Resources, Capacity Building and Resource Sharing to Disaster Risk Reduction and Management, and Maritime Transport. Indian Industry on its part needs to harness these opportunities in the current business environment.

GOVERNMENT POLICIES

5. The Government of India in Aug 2020 issued a draft Defence Production and Export Promotion Policy to provide a focused and structured thrust to defence production capabilities of the country for self-reliance and exports. This policy and the security environment in the India Ocean Region has the potential to enable achievement of some of the goals. The policy has laid out following objectives:-
 - (a) To achieve a turnover of Rs 1,75,000 Crores (US\$ 25Bn) including export of Rs 35,000 Crore (US\$ 5 Billion) in Aerospace and Defence goods and services by 2025.
 - (b) To develop a dynamic, robust and competitive Defence industry, including Aerospace and Naval Shipbuilding industry to cater to the needs of Armed forces with quality products.
 - (c) To reduce dependence on imports and take forward “Make in India” initiatives through domestic design and development.

- (d) To promote export of defence products and become part of the global defence value chains.
- (e) To create an environment that encourages R&D, rewards innovation, creates Indian IP ownership and promotes a robust and self-reliant defence industry.

PROPOSED STRATEGY FOR ACHIEVING STATED TARGET

6. Defence exports have grown manifold over the last few years. In order to achieve the target of Rs 35,000 crore (US\$ 5 Bn) of Defence Exports by 2025, the following strategies are proposed:-
- (a) Defence Attachés have been mandated and are supported to promote export of indigenous defence equipment abroad. This effort would be supplemented by selected DPSUs which would be positioned to work as export promotion agencies.
 - (b) Subject to strategic considerations, domestically manufactured defence products will be promoted through Govt to Govt agreements and Lines of Credit/Funding.
 - (c) Export Promotion Cell set up to promote Defence exports through coordinated action to support the Industry would be further strengthened and professionalized.
 - (d) DPSUs and OFB would be mandated to have at least 25% of their revenue from exports including success fee earned as target by 2025.
 - (e) In collaboration with the Industry associations, DDP would facilitate bringing on board Indian Offset Partners (IOPs) in the discharge of offset obligations by OEMs.
 - (f) Defence Expo and Aero India are major global events to showcase India's capabilities in defence manufacturing, and also to encourage exports. This would be supplemented by branding the Indian Defence products. Defence Industry delegations would be organized to targeted countries in addition to participation in prominent global defence expositions.

- (g) The end-to-end export clearance process in the Department of Defence Production would be further upgraded to make the process seamless and time-bound.
- (h) In consonance with the provisions of various Multilateral Arms control protocols, Open General Export License (OGEL) regime would be utilized to encourage export of selected defence equipment/items to identified friendly countries.
- (j) Achievements of Indian Defence industry would be showcased on running basis on Indian Embassy web-sites.
- (k) Active support of services would be taken for exploring opportunities for export of defence products.

EXPORT POTENTIAL

7. The industry body SIDM and Ernst and Young in their report “Enhancing Indian Defence Exports” after analyzing SIPRI data over ten years brought out the key weapons system market share of the global defence trade (Table-1). These areas provide a direction of focus for the Indian defence production companies as well as for policy makers in the government to facilitate such manufacture and trade.

Platform / Weapon system	Trend Indicator value in million (2008)	Trend indicator value (in million) (2018)	Market share (2008)	Market share (2018)	CAGR (2008 - 2018)	TIV of global defence exports (in million) (2008 - 2018)
Aircraft	9784	12403	40.5%	45.0%	2.4%	131,947
Air defence systems	1309	1235	5.4%	4.5%	-0.6%	16,440
Armored vehicles	3254	3302	13.5%	12.0%	0.1%	36,521
Artillery	550	276	2.3%	1.0%	-6.7%	5,051
Engines	986	1184	4.1%	4.3%	1.8%	13,841
Missiles	3265	4226	13.5%	15.3%	2.6%	39,723
Naval Weapons	176	142	0.7%	0.5%	-2.1%	1,666
Others	223	146	0.9%	0.5%	-4.1%	2,297
Satellites		50	0.0%	0.2%	N/A	350
Sensors	1367	980	5.7%	3.6%	-3.3%	15,799
Ships	3219	3643	13.3%	13.2%	1.2%	42,357

Source: SIPRI Arms Transfer Database

Table-1. Weapons system market share of the global defence trade

In order to achieve the target of 5 billion dollars by 2025 the government has taken further initiatives such as the 21 country outreach between governments, defence establishments as well as industry. Furtherance of this effort is also possible on part of the industry based on the SAGAR (security and Growth for All in the Region) pronouncement by the Prime Minister for the region. By identifying products, capabilities, requirements and a whole of government approach keeping Commerce, Shipping and Maritime Industry, DMA (Department of Military Affairs), Department of Defence production, Civil Aviation and the MEA informed and working in unison, this target can be achieved and realized as planned. An area which may also be explored in this endeavour by the government is the need for harnessing human talent in training and maintenance of equipment.

8. Under the domestic initiative the industry has supplied varied products to the Indian Armed Forces such as IACCS, radars, SAMs, helicopters, artillery guns, ships, tanks, ammunition etc. Export of this military hardware with suitable modifications to the countries in the neighborhood and IOR as per their security requirements is a sector with promising potential and results. The trajectory of exports these changes in policy have provided to the exports are tabulated vide Table 2.

Table 2

Total Exports (in Rs crore)	2016-17	2017-18	2018-19
	1521.91	4682.36	10745.77

CONCLUSION

9. The Government of India has taken steps to create an environment for conducive conduct of business relationships through its diplomatic strategy and created defence production structures and policy within the country to harness the capabilities internally and externally, which would lead to greater freedom of action to conduct foreign policy and enhance national security. There is a continuous need to promote the products produced in the country as well as have a holistic approach to be able to achieve the objectives of export of five billion dollars by 2025.



COASTAL HAZARD RISK REDUCTION AND MITIGATION INITIATIVE

*From the Ministry of Science & Technology,
Govt of India*

India is one of the biggest peninsulas of the world having 7517 km coastline. The Eastern coast is comparatively wider than the western coast and it lies between the Eastern Ghats and the Bay of Bengal. The area receives ample amount of SW & NE Monsoonal rainfall. This coastal stretch is the land of tropical cyclones originated from Bay of Bengal, storm surges and monsoonal floods. The environment of Eastern Coast of India has its typical characteristics and responses towards the hazardous forces particularly cyclones. Eastern coast of India has witnessed a number of cyclonic storms in the recent times like Andhra Pradesh Cyclone in 1990, Great Orissa Super Cyclone in 1999, Aila in 2009, Rashmi in 2008, Laila in 2010, Helen & Lehar in 2013, Phailin in 2013, Hudhud in 2014, Kyant in 2016, Vardah in 2016, Mora in 2017, Ockhi in 2017 and Fani in 2019. Every time a cyclone hits the coast, it causes tremendous loss of human lives and properties. This also causes damage to coastal areas infrastructure and heavy damage to coastal soil erosion. Bathymetric sub surface seawater is also badly eroded and affected. Thus, there is a strong justification to study the effect of such cyclonic activities along east and west coast and its impact on the coastal region.

The present scenario of the coastal environment, stressed with the increasing population pressure, global phenomena like global warming, sea level acceleration, frequent hit of cyclonic hazards & flooding, is very much awful to realize the need of a scientific approach to connect the environmental problems with the socio-economic problem of the region. Every year large scale flooding and inundation cause huge loss of life and property. Helpless and unprepared condition of the public prevails at the time of sudden hit of cyclonic storms and tsunami. To address the problem of the coastal population an integrated approach needs to be adopted.

As a part of Sendai Framework, adopted worldwide for Disaster Risk Reduction 2015–2030, Government of India has also taken several initiatives for strengthening disaster reduction strategies. India's first

National Disaster Management Plan is based on Sendai Framework Having four priority themes - understanding disaster risk, strengthening disaster risk governance, investing in disaster risk reduction (through structural and non-structural measures) and enhancing disaster preparedness, early warning and building back better in the aftermath of a disaster.

In the case of coastal environments also, it is easier to identify the most prevalent hazard analyzing the historical data. The entire coastal stretch may not be having the same degree of vulnerability to a particular problem, depending on the absolute local setup nature and degree of the hazards may vary. Geospatial technology offers an easy inspection of the condition even upto the micro level setup.

There are certain Government departments / Ministries like Ministry of Earth Sciences (IMD), INCOIS, Hyderabad are making observational networks for monitoring the various parameters of cyclonic events. In the process, a number of Doppler Radars have been installed along the critical areas of east and west coasts. These Radars are capable of monitoring any low pressure area created in the Bay of Bengal and Arabian Sea and also monitoring their trajectory very accurately to predict how a particular cyclone is going to hit the coast and its speed, time and direction also. Also, there are a lot of modeling with regard to wave propagation being attempted in various academic and other Government departments to provide the information about the areas to be affected if any cyclonic event occurs. It is seen that when any cyclonic storm is taking place, a lot of areas in the coastal line are badly inundated and top fertile soil is also eroded. In addition, a lot of infrastructure like electric poles, houses, roads, schools, hospital buildings are affected. There is no proper integration of geospatial data with the models being developed for forecasting impact of cyclones.

The convergence of ideas, research work without repetition is the prior consideration, so that in a country like us can use our resources in an economic way and timely manner. Understanding of regional setup, Mass response to the problems, community participation in disaster risk reduction programmes may play crucial roles to implement Hazard Risk Management measures successfully.

Keeping the above in view, National Geospatial Programme Division (NGP) -DST has initiated a Coastal Hazard & Risk Assessment (CHRA) Programme to cover the coastal areas of India from a perspective of Disaster Risk Reduction. Although natural events are unpredictable, the 'Hotspots' may be identified but on the basis of the analyzing historical data of cyclonic events. Vulnerability assessment of the area identified further may be appraised with the application of geospatial technology. The integration of data and establishment of 'bottom-up' and 'top-down' linkage between citizen and government is the requirement of the hour. In the era of information technology the task has become much easier from the government and it has become easily accessible for the public. Thus, the above mentioned programme would be addressing these issues scientifically.

Coastal disasters identified in CHRA project viz; coastal tectonics - sea level rise and its impacts, Tsunami and storm surges, cyclones, floods and coastal erosion. Under CHRA, the R&D project proposals have been supported on the various elements namely (i) disaster genetics, (ii) disaster propagation modeling, (iii) modeling of inputs of the oceanic, meteorological, sea bed and coastal structural parameters and identification of coastal zones prone to attack under varying geo positions of origin /path of the disasters (iv) modeling of interface dynamics between coastal disasters and coastal geo systems and factor controlled disaster vulnerability (v) damage and risk assessment (vi) early warning systems etc.

n. This was amply displayed during the evacuation of civilians from Lebanon



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