



Exploring India's Maritime Connectivity in the Extended Bay of Bengal

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Attribution: Anasua Basu Ray Chaudhury, Pratinashree Basu, Sohini Bose, "Exploring India's Maritime Connectivity in the Extended Bay of Bengal", November 2019, Observer Research Foundation.

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Design and Layout: simijaisondesigns

ISBN: 978-93-89622-15-7

ISBN Digital: 978-93-89622-16-4

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Foreword

Since its inception, ORF-Kolkata has devoted much time and resources to the study of India's connectivity with its eastern and southeastern neighbours, specifically designing a research programme around this theme. Over the years, a series of reports have been published covering varied themes including land and inland waterway connectivity, energy cooperation, border management, and people-to-people ties. The last such study from ORF Kolkata, *India's Maritime Connectivity: Importance of the Bay of Bengal* (2018) centred on the diverse maritime linkages of India with the Bay-adjacent nations of South Asia—namely, Bangladesh, Myanmar and Sri Lanka.

This study proceeds a few steps forward. The volume provides an account of the geostrategic and geo-economic forces shaping the connections between India's east coast and what it calls the 'extended Bay', or the Southeast Asian countries of Thailand, Malaysia, Singapore and Indonesia. How have these linkages occurred? While some of the answers lie in the histories of the civilisations that thrived in the region, this report focuses on the physical capital related to connectivity, the unfolding forces of international trade, cooperation over disaster, and strategic convergences.

There is no doubt that any connectivity initiative in the region needs to be viewed in the broader backdrop of the unfolding geopolitical and geo-economic forces in the Indo-Pacific. India's Indo-Pacific vision is delineated by the Security and Growth for All in the Region (SAGAR) postulating a free, open and inclusive region. Even Japan's, and the US' visions of 'Free and Open Indo-Pacific' (FOIP) are not confined to security and strategic implications; they also have connotations for trade and development. The US insists on rekindling the 'Quad' — a potential security arrangement among the four large democracies of Australia, India, Japan, and the US, creating a combined force in the region to balance the unbridled advancement of a resurgent China. A large number of free-trade agreements and regional trade agreements have been hallmarks of the geo-economic regime of this region. While China has conceptualised its gargantuan Belt and Road Initiative (BRI), the trilateral Free Trade Agreement between China, Japan and South Korea, the Transatlantic Trade and Investment Partnership between the US and European Union, and other regional trade agreements are emerging due to the apparent failure of the World Trade Organisation's Doha Round.

Moreover, India's temporary withdrawal from the Regional Comprehensive Economic Partnership (RCEP) has brought a different dimension to the geostrategic and geo-economic concerns in the region. Rightly, this report explores the Bay of Bengal as a maritime space in the broader context of the geostrategic construct of Indo-Pacific, while dealing with India's strategic dynamics with Thailand, Malaysia, Singapore and Indonesia.

It outlines a range of opportunities and threats that emerge in the context of India's maritime relations with the four countries. Moreover, by bringing in the dimension of disaster management and cooperation over assistance, the report attempts to bring about a newer dimension to the connectivity discourse. While disaster, by itself, is a threat to maritime connectivity initiatives, it is also an enabler of cooperation. The

novelty of this work lies not only in raising relevant questions, but also in creating a literature base and combining the same with field-level observations that reinforce the analysis. This is what makes this work highly relevant to policymaking. This is, however, only the beginning and not an end in itself. I am sure that this research will inspire a generation of researchers and scholars to explore further with newer policy questions in this domain and in relevant geographies.

Dr. Nilanjan Ghosh

Director, ORF Kolkata

18 November 2019

PREFACE

As part of ORF-Kolkata's ongoing research on connectivity, we have published reports on India's connectivity with Bangladesh, Myanmar, Nepal and Bhutan in the past few years. Our focus has recently shifted to maritime connectivity across the Bay of Bengal.

Sailing has historically been a vital means of communication across the Bay of Bengal since the ancient eras. Following a lull over many years in the second half of the 20th century, there has been a recent rediscovering of the importance of the Bay owing to various reasons. These include the end of the "globalisation" phenomenon as defined in the past century, the economic resurgence of the littoral states, China's emergence as a global economic and military power, and an upsurge in global trade. These developments have drawn the attention of not only the US but of other countries as well, including Australia and Japan.

The first of our maritime connectivity studies focused on India's connectivity with its immediate neighbours like Bangladesh, Myanmar and Sri Lanka, and covered port logistics, the potential of inland waterways, and issues of strategic convergences and divergences. The present report deals with maritime commerce and logistics, humanitarian assistance during natural disasters, and the evolving strategic scenario in the Bay. The ambit includes India's Southeast Asian neighbours, namely, Thailand, Malaysia, Singapore and Indonesia.

Like our previous reports on connectivity, this one relied on extensive field work. Through direct interactions with relevant institutions and stakeholders, we have examined the past, present and the future of India's linkages with the extended Bay of Bengal neighbourhood.

We hope the present volume will be a source of great interest not only for scholars studying the subject but to many other readers as well.

Rakhahari Chatterji
Adviser, ORF Kolkata
15 November 2019

Acknowledgements

We are indebted to policymakers, bureaucrats and stakeholders in India, Thailand, Malaysia, Singapore and Indonesia, without whose contributions this report would not have been possible.

We extend our gratitude to Capt. Sandeep Marathe, Defence Advisor, High Commission of India in Singapore; Lakshmikant Kumbhar, First Secretary (Political and Labour), High Commission of India in Kuala Lumpur, Malaysia; Venus Asawapoom, former acting Consul General; Nutt Svasti-Salee, Consul, Royal Thai Consulate-General in Kolkata, India; Nor'azam Bin MohdIdrus, Deputy High Commissioner, High Commission of Malaysia in New Delhi, India; Siddharto R. Suryodipuro, Ambassador, Embassy of the Republic of Indonesia in New Delhi, India; Novrizal, Minister Counsellor (Political), Embassy of the Republic of Indonesia in New Delhi, India and Mahesh K. Saharia, Hon. Consul of the Republic of Indonesia in Kolkata, India; Vinit Kumar, Chairman, Kolkata Port Trust; S.K. Saha Roy, General Manager (Traffic) I/C, Haldia Dock Complex (Retired); M.V. Kapardee Consultant (R &P), Visakhapatnam Port Trust; K. Srinivasan, Deputy Director Research, Chennai Port Trust.

We thank, Nattayaporn Khawpong, Third Secretary, Department of South Asian, Middle East and African Affairs, Ministry of Foreign Affairs of Thailand; officials at the Royal Thai Navy, the Laemchabang Port, Ranong Port; the Marine Department in Bangkok and Lt. Kan Maenaruji, R.T.N., Director, Support Services Administration Department, Bangkok Port, Port Authority of Thailand; Somsong Lekboonsong, Assistant Director, Research and Business Development Division, Bangkok Port, Port Authority of Thailand, Bangkok Port, Port Authority of Thailand; Panhathai Nitilathi, Chief, Research and Development Section, Bangkok Port, Port Authority of Thailand; Sunisa Boonsiri, Chief of International Business Section, Bangkok Port, Port Authority of Thailand; Tanai Vipasthavach, Director of Business Relations and Marketing Division, Bangkok Port, Port Authority of Thailand; Kittiporn Sungkatat Na Ayudha, Technical Officer, Research and Development Division, Policy and Planning Department, Bangkok Port, Port Authority of Thailand. We thank officials at the Ministry of Foreign Affairs of the Kingdom of Thailand (Representatives from the Department of South Asian, Middle East and African Affairs and the Department of International Economic Affairs)

We are indebted to Amitendu Palit, Senior Research Fellow and Research Lead (Trade and Economic Policy); Ronojoy Sen, Senior Research Fellow (and Research Lead, Politics and Governance); Chulanee Athanayake, Visiting Research Fellow, Institute of South Asian Studies (ISAS) in the National University of Singapore; V. Vijayaindaran, Cov. Assistant General Manager, Port Klang Authority, Malaysia; Vice Admiral Ganesh Navaratna, Chief Executive, Nor Aini Binti Mohd Nordin, Assistant Director, Malaysian Institute of Defense and Security (MiDAS), Kula Lumpur; Raja Nur Farzana Bt. Raja Reza, Researcher, Special Projects, Maritime Institute of Malaysia, Kula Lumpur; Huda Mahmoud, Researcher cum Sub-editor, Special Projects, Maritime Institute of Malaysia, Kula Lumpur; Darshinee Nadarajan, Researcher, Centre for Straits of Malacca, Maritime Institute of Malaysia, Kula Lumpur; Jalila Abdul Jalil, Acting Centre Head, Centre for Ocean Law and Policy, Maritime Institute of Malaysia, Kula Lumpur; Norshiyam Bt. Jamal, Researcher, Centre for Straits of Malacca, Maritime Institute of Malaysia, Kula Lumpur.

We specially thank Premesha Saha, Associate Fellow, ORF, New Delhi, for her contributions towards the analysis of maritime logistics of Indonesia. Her assessment and inputs have been essential to the drafting of this publication.

We are also immensely grateful for the support and inspiration extended by the research faculty at Observer Research Foundation, Kolkata.

And finally, we owe a debt of gratitude to Prof. Rakhahari Chatterji, our adviser for this project. Without his able guidance, this report would not have been completed.

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ABBREVIATIONS

AADMER	ASEAN Agreement on Disaster Management and Emergency Response
ACDM	ASEAN Committee on Disaster Management
ACFTA	ASEAN–China Free Trade Area
ADMM	ASEAN Defence Ministers Meeting
AHA Centre	ASEAN Coordinating Centre for Humanitarian Assistance on Disaster Management
AJDRF	ASEAN Joint Disaster Response Plan
ANC	Andaman and Nicobar Command
ANI	Andaman and Nicobar Islands
APL	American President Lines
ARDEX	ASEAN Regional Disaster Emergency Response Simulation Exercise
ARF DiREX	ASEAN Regional Forum Disaster Relief Exercise
ARF	ASEAN Regional Forum
ASEAN	Association of South East Asian Nations
ASSOCHAM	Associated Chambers of Commerce and Industry India
AUSINDEX	Australia India Exercise
BECA	Basic Exchange and Co-operation Agreement
BIMSTEC	Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation
BNPB	Badan Nasional Penanggulangan Bencana
BRI	Belt and Road Initiative
CECA	Comprehensive Economic Cooperation Agreement
CEPA	Comprehensive Economic Partnership Agreement
CMA-CGM	Maritime Freightling Company – General Maritime Company
COMCASA	Communications, Compatibility and Security Agreement
CORPAT	Co-ordinated Patrols
CPTPP	Comprehensive and Progressive Agreement for Trans-Pacific Partnership
CSR	Corporate Social Responsibility
DANX	Defence of Andaman and Nicobar Exercise
DM	Disaster Management
DP	Dubai Port
DWT	Dead Weight Tonnage
EAEC	East Asian Economic Caucus
EAS	East Asia Summit
EBS	Enterprise Business System
ECRL	East Coast Rail Link

EEC	Eastern Economic Corridor
EEZ	Exclusive Economic Zone
FDI	Foreign Direct Investment
FIPIC	Forum for India-Pacific Islands Cooperation
FTA	Free Trade Agreements
GDP	Gross Domestic Product
GMF	Global Maritime Fulcrum
GMS	Ganga Mekong Sub-region
HADR	Humanitarian Assistance and Disaster Relief
IAF	Indian Air Force
ICD	Inland Container Depot
IFC	Information Fusion Centre
IIBF	India Indonesia Business Forum
IIF	India Indonesia Investment Forum
IMC	International Maritime Centre
IMO	International Maritime Organisation
IMO	International Maritime Organization
INS	Indian Naval Ship
IONS	Indian Ocean Naval Symposium
IOR	Indian Ocean Region
IORA	Indian Ocean Rim Association
IOTWMS	Indian Ocean Tsunami Warning and Mitigation System
IOWave	Indian Ocean Wave
IPRD	Indo-Pacific Regional Dialogue
JAI	Japan Australia India
JIMEX	Japan-India Maritime Exercise
JNPT	Jawaharlal Nehru Port Trust
LCP	Laem Chabang Port
LEMOA	Logistic Exchange Memorandum of Agreement
LPI	Logistics Performance Index
MDA	Maritime Domain Awareness
MoU	Memorandum of Understanding
MPA	Maritime and Port Authority of Singapore
MSP	Malacca Straits Patrol
MSR	Maritime Silk Route
MTAs	Maritime Transport Agreements
NGO	Non-Governmental Organisation
NTMs	Non-Tariff Measures
OBOR	One Belt One Road
OOCL	Orient Overseas Container Line
PAT	Port Authority of Thailand
PKFZ	Port Klang Free Zone
PM	Prime Minister
PPT	Pasir Panjang Terminal

PSA	Port of Singapore Authority
Quad	Quadrilateral Initiative
RCEP	Regional Comprehensive Economic Partnership
RCL	Regional Container Lines
RIMPAC	Rim of the Pacific Exercise
SAGAR	Security and Growth for All in the Region
SEZ	Special Economic Zone
SIMBEX	Singapore-India Maritime Bilateral Exercise
SLOC	Sea Lanes of Commerce
SMART	Special Malaysian Disaster Assistance and Rescue Team
SOP	Standard Operating Procedure
SPS	Sanitary and Phyto-Sanitary
TBT	Technical Barriers to Trade
TEU	Twenty-Foot Equivalent Unit
UAV	Unmanned Aerial Vehicle
UN	United Nations
UNCLOS	United Nations Convention for the Law of the Sea
UNESCO	United Nations Educational, Scientific and Cultural Organization
USA	United States of America
USD	United States Dollar
VKP	Virtual Knowledge Portal

Introduction

The Bay of Bengal in Context

The Bay of Bengal, spread across 2,173,000 square kilometres,¹ is gaining greater salience in recent years as part of a strategic maritime space. While the rise of Asia has been a topic of much deliberation over the past few decades, it is being felt more today. It is in response to these geopolitical forces that multilateral approaches are emerging, including the so-called 'Pivot of Asia' led by the US, China's Belt and Road Initiative (BRI), as well as India's Act East Policy and Vision of Security and Growth for All in the Region (SAGAR). There is also Japan's 'Free and open Indo-Pacific' idea and Australia's 'Look West' policy.

Sailing has historically been a vital means of communication across the Bay of Bengal, with frequent contact between the eastern seaboard of India and the land of *Suvarnabhumi* (continental Southeast Asia) and *Suvarnadvipa* (maritime Southeast Asia).² Port towns and cities formed vibrant hubs of exchange and commerce, as documented in the accounts of Al Idrisi, Ibn Batuta and Asavu, among others. The ancient 'Maritime Silk Route' or the 'Spice Route' was one of the most important sea trading passages that connected India with its Southeast Asian neighbours. With the influx of the European powers, competition for colonies loomed large. Apart from the British, the French and the Dutch also developed a stronghold around the Bay. Commerce also expanded as the colonial masters became large exporters of agricultural goods. Under such circumstances, the colonial era further strengthened inter-Bay connectivity.³

Following the First World War, nationalism engulfed the Bay littorals. The newly independent countries prioritised self-sufficiency⁴ and the Bay of Bengal gradually became a strategic backwater.

From Backwater to Geostrategic Maritime space

While the process of decolonisation fragmented the region, the creation of the Association of Southeast Asian Nations (ASEAN) in 1967 and the South Asian Association for Regional Cooperation (SAARC) in 1985 brought hope for a new era of connectivity among the member countries. Later, in 1997, the creation of the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) marked the beginning of the re-integration of the Bay.

In addition to the major Sea Lanes of Communication (SLOCs), the busiest East-West shipping route which passes close to the Bay of Bengal has increased in importance. More intensely in the recent years, the rise of China has had a defining role in the Bay, its extended waters in the Andaman Sea and in the larger Indo-Pacific region. China's growth has created space for new bilateral, multilateral and regional initiatives in Asia; moreover, Beijing's defining presence has prompted policy shifts among major global powers like the US, Japan, and Australia, leading them to reassert freedom of navigation in the Indian Ocean Region (IOR) and compliance of all user states with international maritime law⁵

To understand the current maritime connections across the Bay, it is necessary to study logistics, trade, humanitarian assistance and relief in times of disaster and the strategic imperatives that shape political alignments. As an analyst has observed: “a nation’s peacetime commerce and mercantile marine are inextricably connected with its naval strength.”⁶ Indeed, while logistics comprises the foundation for the enhancement commercial exchanges, it is the role of the strategist and the capacity of the navy to ensure that trade and cultural interactions flow seamlessly.

In view of the opportunities and challenges that abound in this maritime space, the littorals have sought to revitalise their inter-Bay connectivity. India’s diplomatic policymakers are pondering how the vision of SAGAR—which seeks growth for all—can be made mutually reinforcing with Project Sagarmala that looks into the country’s port-led development.⁷

In 2018, Observer Research Foundation published a report, *India’s Maritime Connectivity: Importance of the Bay of Bengal*,⁸ studying the multi-faceted dimensions of the maritime linkages between India and the Bay adjacent countries such as Bangladesh, Myanmar and Sri Lanka, along with India’s Andaman and Nicobar Islands.

The present study makes an appraisal of the geopolitical, geostrategic and geoeconomic dimensions of the linkages between India’s east coast and the ‘extended Bay’—Thailand, Malaysia, Singapore and Indonesia—with respect to port logistics, trade interactions, disaster management and strategic convergences. The aim of this study is three-fold: a) to examine the existing nature of port and commercial linkages between India and the aforesaid littorals and explore how these linkages can be strengthened; b) to examine the vulnerabilities of the littorals in terms of natural calamities and to analyse how and to what extent humanitarian assistance and disaster management can be regionally governed; and c) to explore the Bay of Bengal as a maritime space to understand the geostrategic construct of Indo-Pacific. This study will also delve into India’s strategic equations with Thailand, Malaysia, Singapore and Indonesia in the Bay of Bengal.

The authors define the geography of the ‘extended Bay’ using two considerations: first, apart from Thailand, the other three countries are not members of the BIMSTEC sub-region but in the changing geostrategic milieu in the IOR, India’s relations with these three countries are becoming crucial; second, the Andaman Sea and the Strait of Malacca together may be treated as a notional extension of the Bay of Bengal as the study delves into India’s maritime connectivity with the littorals of this maritime space. It is worth mentioning in this context that according to the International Hydrographic Organization, the Bay is delimited in the east by a narrow line from Cape Negaris in Myanmar through the larger Andaman Islands till Little Andaman which separates it from the Andaman Sea.⁹

Review of Literature

Research on different issues cutting across migration, logistical development, blue economy, disaster management, strategic constructs of the Indo-Pacific has gained momentum in recent years. The book, *Crossing the Bay of Bengal: The Furies of Nature and the Fortunes of Migrants* by Sunil S. Amrith contextualises the connectivity between India and the Southeast Asian littorals. It provides a historical narrative of migration across the Bay, and an overview of how the Bay which was once a hub of connectivity and livelihood receded into isolation, only to re-emerge as a strategically and economically dynamic maritime space. The book describes the ancient trade routes traversing the Bay, which have long been utilised as passageway for goods

and people between India and Southeast Asia. It narrates tales of frequent cyclones and strong winds that hindered the migrants in their journeys, and how despite “the furies” of the Bay, connectivity thrived as the people learnt to navigate the natural turbulence.¹⁰

The book, *Maritime Infrastructure in India: Challenges and Prospects* edited by A. Subramanyam Raju¹¹ deals with three important sectors of maritime logistics: maritime infrastructure; ports, shipbuilding and shipping; and security of maritime infrastructure. The authors cover various aspects of maritime organisation, including coastal security architecture, coastal shipping, maritime clusters, shipping strategies, the world’s container ports in relation to India, and the overall maritime security challenges and preparedness of the country. It throws light on government’s policies and traces the recent shifts in India’s strategic thinking. While the book deals with infrastructural development relating to port logistics and is instrumental in highlighting the prevalent as well as ascending challenges, it does not give attention to ports other than those in India.

Also noteworthy is the Working Paper, *Seaborne Trade between South Asia and Southeast Asia* edited by David Wignall and Mark Wignall.¹² The authors examine seaports that have handled the bulk of seaborne trade in the Bay of Bengal region and identify the projects that would facilitate trade and the augmentation of maritime infrastructure. The paper begins with the nature of cargo traded in this maritime space, the mode of transport utilised for the same and focuses on containerised as well as bulk cargo. It demonstrates the efficiency and cost effectiveness of maritime trade and studies the infrastructural capabilities of ports across the South and Southeast Asian region. Although this paper looks at the South and Southeast Asian region as a whole, it does not address the many issues that the region faces from the standpoint of India.

Three books on humanitarian assistance and disaster relief have been most pertinent for this study. *Climate Change and the Bay of Bengal: Evolving Geographies of Fear and Hope* co-authored by Sanjay Chaturvedi and Vijay Sakhuja¹³ offers perspectives on how the Bay of Bengal experiences tropical cyclones due to which the littorals suffer significant loss of life and damage to property. The onslaught of climate change is expected to worsen the turbulence in the Bay, creating long-term problems like rise of sea levels which will affect the livelihoods dependent on the Bay’s resources. The book does not delve into disaster management.

In the volume, *Blue Economy of India: Emerging Trends* edited by Adluri Subramanyam Raju,¹⁴ the chapter “Blue Economy and the BIMSTEC: Need for a Comprehensive Framework” (Co-authored: Anasua Basu Ray Chaudhury and Sohini Bose) dwells on the disaster management approaches of India and Thailand, amongst other BIMSTEC countries. Insights are also gained on how BIMSTEC as a subregional organisation operating in these waters is undertaking joint disaster management exercises to enhance disaster preparedness among its members. The discussion does not cover the Southeast Asian littorals of the extended Bay which are the concerned countries of this study. For its part, ‘The Vulnerable Andaman and Nicobar Islands: A Study of Disasters and Responses’ (authored by Punam Tripathi)¹⁵ explores the impact of the 2004 Tsunami on Andaman and Nicobar Islands (ANI) and analyses the measures adopted for recovery. The evaluations offered provide an idea of the disaster management capacity of the islands.

Meanwhile, the book, *Monsoon: The Indian Ocean and the Future of American Power*, Robert D. Kaplan¹⁶ (*Random House, 2010*) sheds light on the strategic convergences

and divergences in and around the Bay. Kaplan opines that the Indian Ocean is set to assume the centre of global politics, marking a significant shift from the traditional focus of geopolitics of the Atlantic Ocean. Kaplan calls for a readjustment in perceptions. He traces the developments that have resulted in this shift from the Gulf of Oman to the shores of Indonesia. The author also observes that in the midst of these geopolitical changes, India stands poised to assume a leading role in the Indian Ocean maritime space, with the US playing the role of an active balancer. From the region's energy dynamics to the significance of market forces, the book offers a wide-ranging view of the factors that are shaping the Indo-Pacific region.

Two major contributions to strategic discourse on Indo-Pacific are *Samudra Manthan: Sino-Indian Rivalry in the Indo-Pacific* by C. Raja Mohan¹⁷ and *Indian Ocean Challenges: A Quest for Cooperative Solutions* edited by Pradeep Kaushiva and Abhijit Singh.¹⁸ *Samudra Manthan: Sino-Indian Rivalry in the Indo-Pacific* delves into the atmosphere of unrest that characterises the maritime space from the Bay of Bengal on to Indian Ocean Region and further into the Pacific. Tensions and a state of potential conflict persist with both countries wary of the other's motives and advances with both nations embarking on an expensive endeavour at expanding their respective naval capabilities.

The volume, *Indian Ocean Challenges: A Quest for Cooperative Solutions*, covers a range of aspects related to the Indian Ocean Region (IOR) including the need for a security architecture, maritime threats in the region, the impact of climate change on maritime security, piracy, humanitarian assistance and disaster relief and assess different mechanisms that would contribute towards regional stability. The relative absence of intelligence and data sharing which is vital to the establishment and preservation of security is also discussed. Overall, the volume is an important text in the context of this monograph as it also explores issues concerning the effective management of the IOR.

Another important segment of the Bay of Bengal study understands the process of institutionalisation and in this context the book, *Twenty Years of BIMSTEC: Promoting Regional Cooperation and integration in the Bay of Bengal region*¹⁹ edited by Prabir De is useful. The book, published by BIMSTEC Secretariat to commemorate the grouping's 20th anniversary, is an exercise to "take stock of BIMSTEC's achievements and chart future direction of the organization." The key objective of the book is to provide policy measures with the hope that the next 20 years would be "BIMSTEC's decades." BIMSTEC has come a long way since it came into existence in 1997, but there is still a long way to go for the grouping to emerge as a key player in promoting integration and strengthening inclusive development in the Bay of Bengal sub-region as well as the wider Indo-Pacific region. The book covers a wide range of topics like trade, investment, connectivity and communication as well as specific issues such as blue economy, trade logistics, transportation hub and gateway.

While useful in the study of maritime spaces, much of existing literature, including the ones reviewed in this section, lack a holistic understanding of the logistical, geostrategic, commercial and geopolitical aspects of maritime space. Furthermore, there has been limited attention on the Andaman Sea, and there is a gap in terms of assessing these issues from an Indian perspective in the context of the ports on the country's eastern seaboard and those in the four countries which are key to the present study.

Structure of the Monograph

The study is divided into three main chapters. The first chapter, 'Maritime Commerce and Logistics' deals with ports, related infrastructure and hinterland connectivity which are vital for boosting trade. The chapter will delve into the following questions:

- What is the present *modus operandi* and logistical competencies of the ports in Thailand, Malaysia, Singapore and Indonesia, and to what extent can there be mutual learning from each other's experience in these areas?
- How can maritime trade be strengthened between India and the concerned countries?
- In which areas can bilateral/multilateral cooperation among these countries including India be beneficial for all?

The second chapter, 'Taming the Tempestuous Bay,' discusses humanitarian assistance and disaster management in the context of the increasing threats from climate change. In facing these trans-national threats, the Bay littorals under the umbrella of BIMSTEC are committed to integrate disaster risk reduction in the region. However, regional collaboration remains incomplete without the participation of the littorals of the extended Bay: Indonesia, Malaysia and Singapore who are members of the disaster response force under ASEAN. India as an ASEAN Dialogue partner and member of the East Asia Summit collaborates with these countries in HADR operations. Disaster management has thus emerged as an avenue of cooperation between South Asia and Southeast Asia. The chapter seeks to explore the following questions:

- What efforts may be undertaken to collaborate with the concerned Bay littorals in disaster management?
- Is it possible for BIMSTEC and ASEAN to have a joint disaster management forum?
- How can India's partnership with these countries be strengthened in the purview of disaster management?

The third chapter, 'Stepping into the Indo-Pacific: Strategic scenario in the Bay of Bengal' focuses on the Bay as an important strategic space. Stretching up to Indonesia, these waters are located strategically close to the busiest shipping lanes of the world. It is in the interest of all littorals to ensure the safe and unhindered passage of vessels and the effective utilisation of common resources. In this chapter, the questions are the following:

- How is the Indo-Pacific region being interpreted by the countries concerned and what initiatives have been undertaken in this sphere?
- How can cooperation in maritime safety and security among these four countries be strengthened?
- Is it possible to formalise a rules-based order?

This study uses sources from published government documents, international non-government organisations' reports, scholarly articles, news reports, field research and interviews. It offers a set of policy measures to strengthen India's maritime connectivity with the Southeast Asian countries.

Endnotes

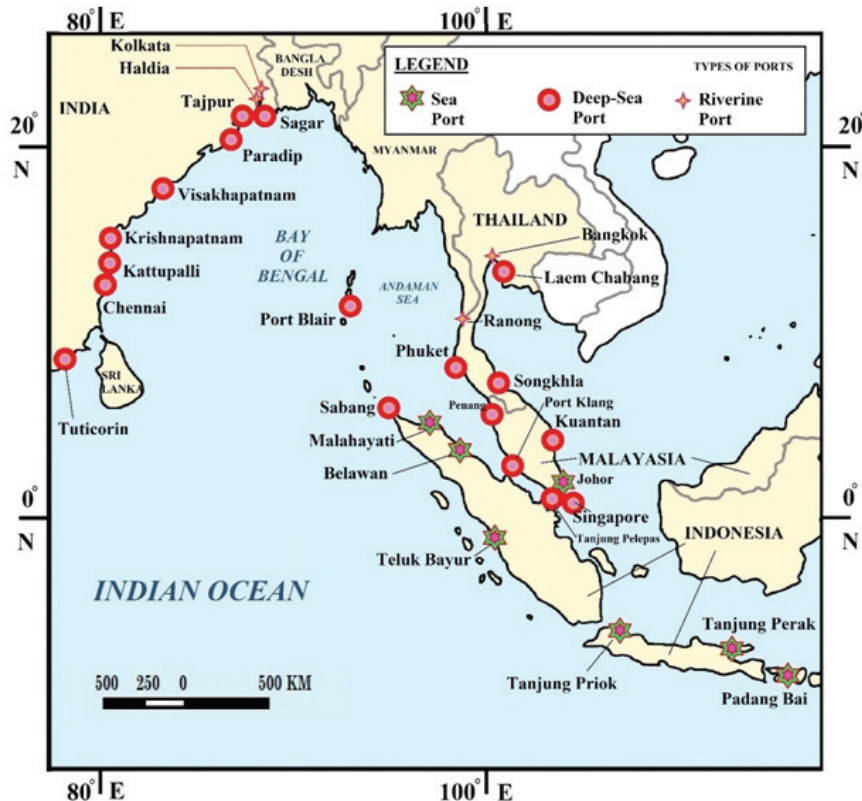
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CHAPTER 1:

Maritime Logistics and Commerce

Maritime trade would not be possible without logistics, which includes infrastructure and communications. India's east and west coast comprise 12 major ports along with several minor ports. Currently, the upgrade of physical infrastructure, digitisation, streamlining of procedures, and adjustments of regulatory measures are being undertaken to overhaul the port infrastructure and operations in the country. ORF-Kolkata's earlier study on maritime connectivity has already covered in detail India's links with countries in the immediate Bay of Bengal region – Sri Lanka, Bangladesh and Myanmar.¹ The present study focuses on the maritime links of the ports on India's eastern coast with ports in the extended region of the Bay (stretching from the Andaman Sea and onto the Indo-Pacific) – Singapore, Indonesia, Thailand and Malaysia (See Map 1). This chapter looks at the logistical competencies of the ports in these four countries and the trade links they have with major ports on India's east coast. Since the ports of Indonesia, Malaysia, Thailand and Singapore are more advanced than those on the eastern coast of India, this chapter will also attempt to understand where India needs to improve its own performance.

Map 1: Ports on India's East Coast and ports in Thailand, Malaysia, Singapore and Indonesia



Source: Prepared by Jaya Thakur, ORF-Kolkata.

Logistics: Bedrock of Connectivity

Port logistics are vital for shipping and maritime transport. These include the available infrastructure, ease of vessel navigation, connectivity options with the hinterland, customs, clearance and warehousing facilities and procedural or operational facility. Together, these allow for the seamless and effective functioning of ports. Most of the world's preferred ports have state of the art, modern infrastructure; are well linked through rail and road transport; and operate under relaxed and flexible regulatory frameworks, which attract and sustain investment.

The ports on India's eastern seaboard were examined in an earlier report, *India's maritime Connectivity: Importance of the Bay of Bengal*.² The report assessed the logistical efficiency, hinterland connectivity and the prevailing operational challenges faced by the seven major ports: Kolkata–Haldia, Paradip, Visakhapatnam, Kattupalli, Chennai and Port Blair, along with the Krishnapatnam, Kamarajar and Tuticorin ports. Among these ports, Chennai and Vishakhapatnam in particular are leading ports on the east coast in terms of cargo handled and operational efficiency. These ports also have better hinterland links and greater degree of connectivity with ports in the immediate Bay of Bengal region as well as those which are further east. The port at Chennai is also the most strategically well-positioned one on the east coast. The Kolkata and Haldia ports act as gateways for the landlocked countries of Bhutan and Nepal with a proposed Multimodal IWT terminal at Haldia for greater capacity in handling traffic through inland waterways. Krishnapatnam is the largest port in the country and privately owned with congestion free hinterland links.

The following section will focus on the major ports in Thailand, Malaysia, Singapore and Indonesia.

Thailand

Under the Ministry of Transport, the Port Authority of Thailand (PAT) manages the five major ports in the country: Bangkok, Laem Chabang, Chieng Saen, Chiengkong and Ranong. Thailand has currently implemented the Five Year Plan (2018-2022), called Thailand 4.0, an economic initiative that involves keeping industrial and urban development in sync with technological advancements, social well-being, economic prosperity and environmental protection.³ An important component of



Containers at the Bangkok Port

Source: Photo by authors.

this initiative is the Eastern Economic Corridor (EEC), which covers Rayong, Chonburi, and Chachoengsao provinces, with a total area of 13,000 square kilometres. The EEC is aimed at accelerating the area's preparedness to attract and support investment and economic growth and become a hub of regional trade, investment and transportation.

In recent years, there has been a lot of activity in the maritime sector. Linking all avenues of physical connectivity—air, land and maritime—are important for Bangkok since these are complementary. Thus, the country is driving its efforts towards a multimodal and holistic connectivity, instead of focusing on any of these in particular.⁴

The Laem Chabang Port (LCP) has the largest market share among the ports in Thailand, and the majority of container throughput is shared between LCP and the Bangkok Port. The LCP also ranks highest among ports in Thailand with reference to market share in ASEAN ports. Construction of the LCP began in 1986 in three phases of which two phases have been completed, with Phase I equipped to handle 4.3 million TEUs (20-Foot Equivalent Unit) and Phase II equipped to handle 6.8 million TEUs of cargo.⁵ The development of Phase III is currently underway and is designed to handle Super-Post Panamax vessels (larger in size than Panamax vessels) with a capacity of more than 10,000 TEUs.⁶ In 2015, the government approved the construction of a new harbour at LCP.⁷ The Laem Chabang Port services a total of 12 terminals of which seven are container terminals.

LAEM CHABANG PORT
Located 25 kilometres north of Pattaya and south of the city of Chonburi
Handling capacity of 6.9 million TEU annually
Depth of the port is 12 m

Source: Thailand Board of Investment, <https://www.boi.go.th/index.php?page=seaports>.

LCP is an energy efficient port and uses electricity for most of its operations to conserve fuel consumption. It is also the only deep-sea port among the five major ports in the country. The PAT regulates the port, including providing basic infrastructure, conducting reclamation works and so on. While the PAT fully operates the other ports in Thailand, private operators are invited by the PAT to conduct port operations. Some of the private operators at LCP include Port of Singapore Authority (PSA), Evergreen, and DP (Dubai Port) World among others. Major export components of the LCP comprise vehicles manufactured in Thailand, which are mostly exported to Europe and Australia. Several infrastructure projects have been identified for the development of connectivity with the hinterland of the port. LCP also encourages the participation of local communities through Corporate Social Responsibility-related activities. Specific radio channels also exist for alerting the locals in the event of accidents or other urgent developments in the port area.⁸



An Aerial View of the Laem Chabang Port

Source: Photo by authors.

On the other hand, the port of Ranong has emerged as a potential port in Thailand for marine transportation on the Andaman coast linking trade with countries in South Asia. Operations at the Port of Ranong were approved in 2003 and it was established as the primary port for transporting marine cargo. Located on the western coast, the Ranong Port links trade routes with countries in South Asia, Middle East, Europe and Africa. Phase II of Ranong Port was developed and opened in 2006 to accommodate larger cargo vessels of 12,000 DWT (deadweight tonnage). While the infrastructure at Ranong is not up-to-speed compared to the other major ports in Thailand, the government is placing considerable emphasis on the port due to its proximity to South Asia. In this regard, BIMSTEC can play a major role in institutionally facilitating Ranong's links with India, Myanmar and Bangladesh. The Trilateral Highway Project with India and Myanmar will be an important development for Ranong in terms of multimodal links with Myanmar and the Kolkata Port in India and also India's northeast.⁹

RANONG PORT

Ranong Port is located on the east coast of Kraburi River, Ranong Province

Phase II has been developed to accommodate larger cargo vessels of 12,000 DWT



A Vessel at the Ranong Port

Source: Photo by authors.

Coastal shipping under the BIMSTEC framework (Map 2) can be a significant area of Thailand's cooperation with India. In this regard, the Ranong port can play an important role in connecting with Myanmar, Bangladesh and the east coast of India.¹⁰ Talks between Myanmar and Thailand on coastal shipping with Chittagong are underway. There are also plans for port-to-port cooperation between India and Thailand, where coastal shipping can be an important part of these discussions as it can only be done on a port-to-port basis. Such cooperation would depend a lot on port-to-port dialogue and the demands and requirements of the respective ports.¹¹ Another area for cooperation between the two countries is monitoring of fishing activities in the Bay as illegal fishing is an important concern in these waters.

In addition, there are plans for a sister port agreement between Chittagong and Ranong. The port of Ranong serves primarily as a base for receiving and transporting cargo bound for inland and northern areas of Thailand, and not cargo bound for the southern parts of the country. In addition, the infrastructure at Ranong is insufficient for handling large volumes of cargo. The development of connectivity links and upgradation of infrastructure at Ranong would facilitate the movement of cargo inland and from north to south. It will also help in the development of links with Myanmar and Bangladesh. Thailand plans to develop Ranong as an international port, increase its connectivity with the Andaman coast and link it with the multimodal transport of the BIMSTEC and Greater Mekong Subregion (GMS). There are also plans to augment the hinterland connectivity of the port with the railway from Inland Container Depot (ICD) at Ladkrabang to Chumphon province.¹²

As far as tourism is concerned, the port at Phuket can be important. Thailand is also keen on exploring connectivity links with not only capital cities in South Asia, but also Tier 3 and Tier 4 cities within its territory. For instance, Chiang Mai can be a tourist link for Bhutan. In India, Bodh Gaya can be a significant location for religious and cultural tourism.¹³ Since the Victoria Island in Myanmar is close to Ranong, small passenger vessels can ply between the two.

Besides these, another important port is the Port of Songkhla, which is being developed with Chinese assistance. The port is managed by the Chaophaya Terminal International Co. Ltd., and facilitates direct imports of cargo by avoiding the need to transship via Bangkok. A land bridge between Songkhla Port in Thailand and Penang Port in Malaysia has been proposed.¹⁴ However, there are concerns that Penang may lose 20 percent of its traffic to Songkhla, which faces the South China Sea and is better located for freight traffic coming from East Asia as vessels would need to travel a shorter distance via Songkhla.¹⁵

The Kra Canal, which has been in the pipeline for many years, has received another push in 2018 from China as part of its BRI, with several Chinese firms lobbying for the contract. The Thai Canal Association for Study and Development has requested the creation of a national committee to look into the controversial project,¹⁶ with the Prime Minister requesting feasibility studies of the proposal for the 12 km. canal.¹⁷ According to reports, Longhao, a Chinese construction company will receive the tender for the construction which includes two offshore islands and warehouses.¹⁸ Despite the insistence of the Thai government that it would not construct the canal, a Memorandum of Understanding (MoU) was signed with China in 2015.¹⁹

Malaysia

There are seven major ports in Malaysia under the federal government: Port Klang, Johor Port, Port of Tanjung Pelepas, Kuantan Port, Penang Port, Bintulu Port and Kemaman Port. There are two additional ports, Sabah and Sarawak, which are under respective state administrations. Of the ports under the federal government, the largest and busiest port in the country is Port Klang in Selangor. The Port Klang Free Zone (PKFZ) houses a regional industrial park and facilitates businesses and manufacturing facilities. The Port of Tanjung Pelepas is one of the fastest growing ports in the country, and because of its strategic location, it has grown to be acknowledged as a competitor of the Port of Singapore. Besides these two ports, the Johor Port is the first to be established in a free trade zone. The Port of Tanjung Pelepas has 14 berths with and capable of handling extra-large ships. The port area is in a Free Zone per the Free Zone Act of 1990 designed to promote trade and manufacturing industries which produce goods primarily for export. The Free Zone is exempt from customs and excise duties.²⁰

The Ministry of Transport in Malaysia has been involved in enhancing the efficiency of Port Klang²¹ and to bring the Port's ranking among the top 10 in the world (the port is currently ranked 12th). The Malaysian government has also planned a port city on Carey Island (located between Banting in the north and Klang in the south) to cater

PORT KLANG
Located about 6 kilometres southwest of the town of Klang, and 38 kilometres southwest of Kuala Lumpur
Port Klang comprises Northport, Southport, Westport and the Port Klang Free Zone
Container handling over 10 million TEUs in 2018

Source: *Port Klang Information Handbook*, Port Klang Authority, 2019.



Containers at Northport (Port Klang), Malaysia

Source: Quay Cranes Northport Malaysia, Wikimedia Commons.

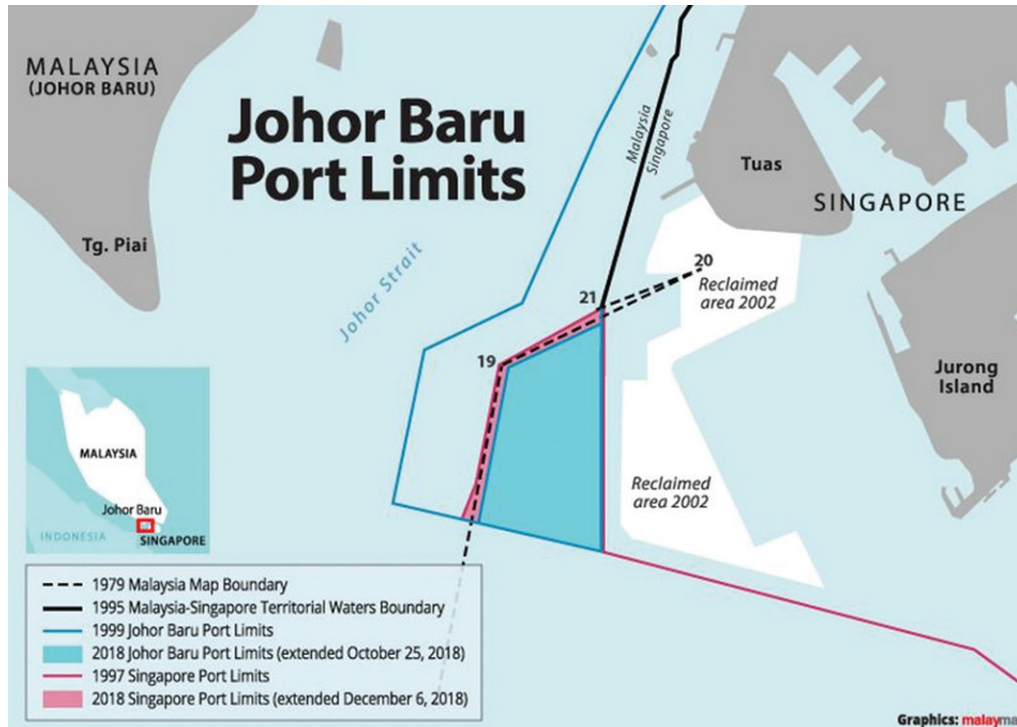
to the expansion of capacities at Klang. Notwithstanding the strategic location of Port Klang, Singapore remains the preferred port for foreign shipping companies due to its efficiency. One of the reasons for this is Klang being weighed down by too many cargo operating agencies.

Additionally, despite the fact that the country has been increasing its share of cargo volumes over the last decade, poor hinterland connectivity and lack of integrated infrastructures are also reasons for Malaysia being less competitive than Singapore. Things may however be looking up for Malaysia as the country plans a land-sea link – the East Coast Rail Link (ECRL),²² expected to be completed by 2022, which will bypass Singapore and enable freight activity to move north. The ECRL will link Kuantan Port and Port Klang and help in alleviating the congestion faced at the narrow Strait of Malacca. Other similar projects for augmenting the port sector in the country include expansion of the Sepanggar Port, which would enhance the capacity at Sabah. Much of the port related activity that Malaysia is engaged in is aimed at tapping into the trade between China and the Philippines.²³

Malaysia has worked on a study with the World Bank in the development of a national port strategy, which will boost the port sector and contribute to economic growth. The key objective of the study was to ascertain the role and the extent of the same in planning, regulating, managing and empowering the ports sector. The study investigated the challenges being faced by the ports of Klang, Tanjung Pelepas, Penang, Johor, Kuantan, Sepanggar, and Kuching.²⁴ Kuala Lumpur is also keen about the Belt and Road Initiative (BRI) and the related possibilities that would ensue from the BRI. Beijing already has a 40 percent stake in Kuantan Port,²⁵ which faces the South China Sea. Kuantan Port is undergoing expansion to increase the container-handling capacity. Beijing also plans to invest on revamping Penang Port. Kuala Lumpur is in favour of tapping into the opportunities offered by the BRI and believes that all Southeast Asian nations stand to benefit from robust maritime trade with Beijing.²⁶

In terms of container port performance, a 2007 study on container port in Malaysia²⁷

Figure 1: Dispute over Port Limits between Singapore and Malaysia



Source: Malay Mail.

found that the ports of Tanjung Pelepas and Johor were ahead of others in the country in terms of vessels handled. The study also determined that geographically, Malaysia was better positioned than Singapore with the capacity to cater for enhanced container throughput and ship calls. But Malaysia suffers from lack of efficient marketing strategies which resulted in Singapore being much further ahead. The study recommended increase of Malaysia's market share and a closer cooperation between the government and port authorities. Nevertheless, Port Klang remains of central significance. For instance, in 2018, Malaysia handled 24 million TEUs of containers, of which 12 million were handled by Port Klang.²⁸ It is the first port of call for cargo bound for the east (it is located before the Port of Singapore) and the last major port of call for cargo bound from the west.²⁹

Singapore

The Port of Singapore is one of the leading ports in the world. Estimates suggest that the port attracts around 1,30,000 vessel calls annually,³⁰ and is a preferred international port of call because of the quality and efficiency of services, infrastructure and competitiveness. Singapore is the world's busiest transshipment hub, one of the world's largest refrigerated container ports and is connected to 600 ports across the globe. The Maritime and Port Authority of Singapore (MPA) regulates and licenses port services and facilities.³¹ Singapore has developed a maritime ecosystem comprising the port and related industries and services and the MPA is at the heart of it.

Port operations, however, are undertaken by Port of Singapore Authority (PSA), which is a flagship terminal of PSA International which is a global port group with projects across Asia, Europe and the Americas. PSA is mandated to develop Singapore as a hub port; develop maritime ecosystem services; and advance the strategic maritime interest of the country.

PORT OF SINGAPORE
Preferred port of call for more than 130,000 vessels
30 million containers handled annually
500 million tonnes of cargo handled annually

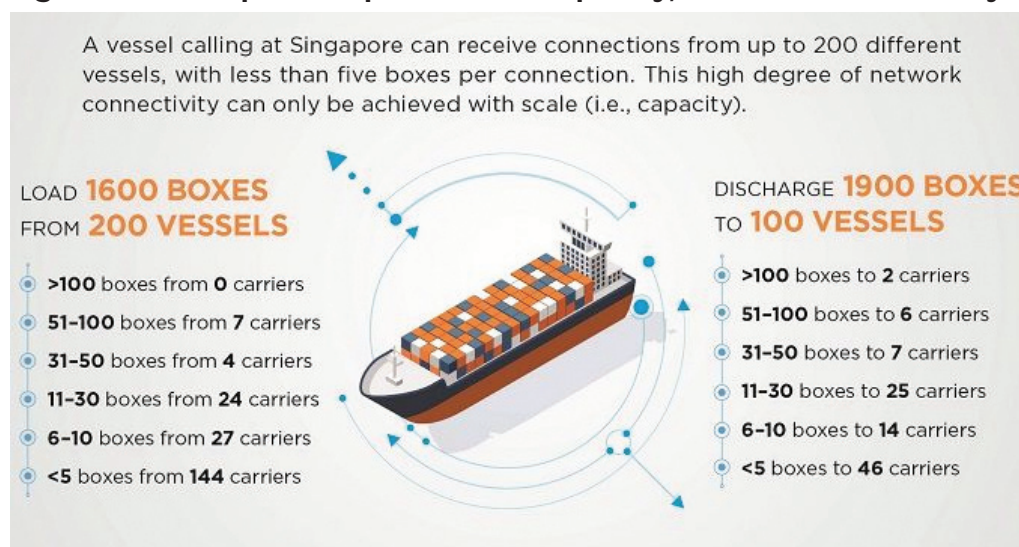
Source: <https://www.singaporepsa.com/our-business/terminals> and <https://www.mpa.gov.sg/web/portal/home/port-of-singapore/operations>.

In 2018, PSA handled 36.31 million TEUs of containers. Transshipment forms the core business of port, with 85 percent containers that call at Singapore being transshipped to another port of call, following the hub and spoke model (Main Line Operator to Feeder), and the crossing strings model (Main Line Operator to Main Line Operator). PSA operates terminals at Tanjong Pagar, Keppel, Brani and Pasir Panjang. These terminals are equipped with up-to-date innovations, such as such as a zero-emission, fully-automated electric yard crane system, which raise port productivity, enhance PSA's ability to manage greater business complexity, and create higher skill-based career opportunities.

Singapore, which established Tanjong Pagar as its first container terminal in 1969, has come a long way, and has established itself as a premier port and maritime economy.³² The two main factors which have helped the country's maritime prowess are connectivity and efficiency in port handling and operations, which have been strengthened by the country's strategic location.

Besides its connectivity, Singapore also invests considerable resources in digitisation and automation. The Maritime Port Authority encourages experiments and innovation to contribute to make the country competitive and cement its position as the largest transshipment hub in the world.

Figure 2: Transshipment Operations: Complexity, Scale and Connectivity



Source: "Connecting to the World: Singapore as a Hub Port," Civil Service College, Singapore, <https://www.csc.gov.sg/articles/connecting-to-the-world-singapore-as-a-hub-port>.

Figure 3: Location of the Tuas Port, Singapore



Source: Wikimedia Commons, https://commons.wikimedia.org/wiki/File:Tuas_Planning_Area_locator_map.png.

Presently, the Tuas Terminal, a mega port project part of Singapore's Next Generation Port vision, is being developed to sustain the country's success as the top container transshipment hub and its leading role as a maritime nation.³³ The Terminal is set to be developed in four phases over a period of 30 years, with Phase I expected to be completed by 2022.³⁴ Once completed, Phase I will be able to handle 20 million TEUs of cargo annually, while the Tuas Terminal as a whole would be able to handle 65 million TEUs, doubling the country's capacity. Operations at the Pasir Panjang, Tanjong Pagar, Keppel and Brani container terminals will be relocated to the Tuas terminal³⁵ as concentrating container activities in a single location would enhance efficiency by eradicating inter-terminal haulage and reducing costs.³⁶

Figure 4: Phases of the Tuas Mega Port



Source: "Full steam ahead for new Tuas mega port," *The Straits Times*, 24 April 2017, <https://www.straitstimes.com/singapore/full-steam-ahead-for-new-tuas-mega-port>.

Tuas, located in western Singapore comprises sheltered waters, is close to major industries and major shipping routes. Relocating to Tuas will also free up land along the southern part of Singapore – Greater Southern Waterfront – for urban development. The terminal is being developed as a next-generation port to strengthen productivity.³⁷ As the country strives to preserve its position as a leading maritime nation, the Tuas terminal is poised to play a significant role in the years to come, especially as northern routes gradually open up to ships in the wake of global warming.

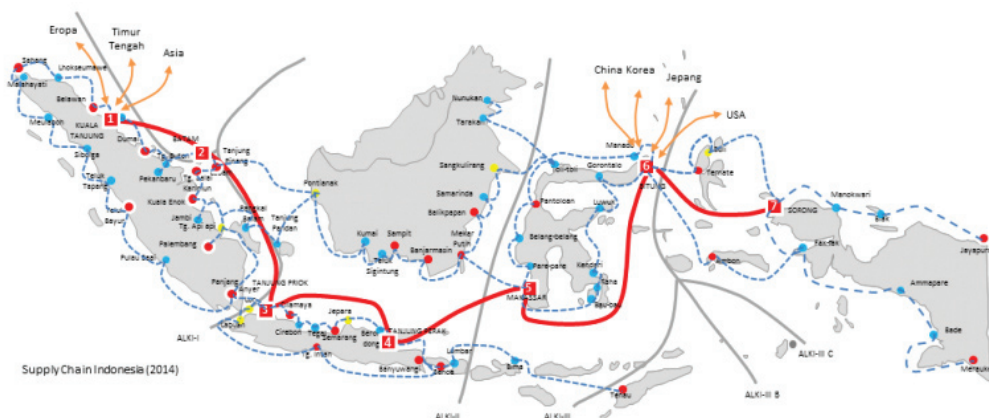
Following the interest of Singapore in ports and supply chains in India, the International Enterprise Singapore (a statutory board under the Ministry of Trade and Industry) has agreed to collaborate with the Gujarat Maritime Board in India to scale up operational efficiency and management of ports in Gujarat by utilising advanced technologies. PSA holds terminal concessions at the Chennai and Kolkata ports on India’s east coast, besides the Nhava Sheva or the Jawaharlal Nehru Port Trust (JNPT), Tuticorin and Kakinada. This heightened interest of Singapore can be attributed to the fact that PSA’s rival company, DP World, has been consolidating its operations in India with investments to the tune of USD 1 billion, and port concessions and also co-owns a terminal at the Chennai Port.³⁸

Singapore does not really perceive Colombo to be a competitor in terms of market share as the two serve different markets. The main business area of Singapore is Southeast Asia, and its main competitor is Malaysia. Nevertheless, Singapore believes that there is enough for everyone to go around because the global maritime industry has significantly expanded.³⁹

Indonesia

In 2014, Indonesia’s President Joko Widodo (Jokowi) declared the Global Maritime Fulcrum (GMF) as Indonesia’s maritime vision. The cornerstone of the policy is the new Maritime Highways design (Map 3), issued on 30 December 2016. The programme is an effort to build an integrated maritime trading network to facilitate inter-regional connectivity, strengthen shipping networks, improve port facilities and cut national logistics costs by 15 percent.⁴⁰ The main purpose of the maritime highways is to provide short time and low shipping costs, which in turn is expected to improve the efficiency of the national logistics costs.⁴¹

Map 3: Indonesian Maritime Highways



Source: Setijadi, 3 July 2015.

The top three sea ports in Indonesia are: Tanjung Priok, which is the busiest and most important transshipment port; Belawan, which operates 24x7 and handles around a million containers annually; and Tanjung Perak, which is both a passenger and an international container terminal serving both international and domestic cruise ships.⁴² Tanjung Priok handles the major part of the country's maritime traffic and has been designated as an international hub container port. As the Tanjung Priok port is congested, Port Petimban is being developed as its complementary. The development of the hub ports is expected to increase maritime transport mode share by 6.42 percent. Currently, the depth of the port is only 6-11 metres(m), and only ships below 1,500 TEUs can use this port. The new Tanjung Priok, named Kali Baru, was designed to have a pool and a groove depth up to 20 m, which means that large ships up to a capacity of 18,000 TEUs can use this dock, directly competing with Singapore. To accelerate time taken to load and unload, the new Tanjung Priok expanded its container capacity to 11.5 million TEUs.⁴³

In this context, the Port of Belawan must be mentioned in conjunction with Kuala Tanjung as both are twin ports, separated by 134 km in east side of North Sumatra province, in the west coast of Malacca Strait. After Kuala Tanjung phase 1 is completed, international cargos handled by Belawan will be directed to Kuala Tanjung and Belawan will exclusively handle domestic cargo.⁴⁴ The port is currently undergoing expansion, which will increase the total capacity of the port from 1.2 million TEUs to 2.0 million TEUs.⁴⁵

The Global Maritime Fulcrum vision, together with the Sea Toll Highway project, which was implemented in 2014, are part of efforts at strengthening the country's maritime infrastructure. Despite the location and archipelagic formation Indonesia, it has not realised its maritime potential.

Geographical proximity is poised to play a significant role in connectivity between Indonesia and the Andaman and Nicobar Islands. India and Indonesia have, for some time, been engaged in discussions for establishing links between Aceh in northwestern Sumatra, Indonesia, with the Andaman and Nicobar Islands,⁴⁶ with the hope of enhancing trade, tourism and people-to-people links. A Joint Task Force has been planned to enhance avenues of connectivity and to assume projects for port-related infrastructure in and around Sabang, which is the closest located Indonesian port to Andaman and Nicobar. The decision for establishing the task force was taken when India's Prime Minister Narendra Modi met with Indonesia's President Joko Widodo in May 2018.⁴⁷

PORT OF TANJUNG PRIOK
Located at Tanjung Priok, North Jakarta
Busiest and most important transshipment port
Currently, the depth of the port is only 6-11 metres (m) but the new Tanjung Priok, named Kali Baru will have a depth of 20 m

Source: Kompas TV, 13 September 2016.

As part of these efforts, a commercial vessel carrying edible items, construction materials and furniture, made its way from the Malahayati Port in Aceh to Port Blair in the Andaman Island in early January 2019.⁴⁸ Other recent developments in this regard include the hosting of the first India Indonesia Business forum in 2018, which has been instituted to facilitate commercial and people-to-people connections; the second India Indonesia Infrastructure Forum, which is expected to look into infrastructural developments between the two countries⁴⁹; and the India Indonesia Investment Forum to augment business connectivity.⁵⁰ A Memorandum of Understanding has also been signed between the Andaman Chamber of Commerce and Industry and the Aceh-Indonesia Chamber of Commerce and Industry for the promotion of bilateral economic relations. In this respect, it is also important to highlight that improving air connectivity between the two regions is under consideration.

Trade Connectivity

A 2014 Asian Development Bank report⁵¹ has emphasised that seaborne trade is, and will remain vital for trade in the South and Southeast Asian region because it offers the most energy- and cost-efficient mode of transport. While land connectivity, including road and rail networks, is limited in the region, the report observes, even if overland links had been strong, the cost differential would have been in favour of seaborne trade. (See Appendix 1 for the volume and nature of import and export cargo between the Indian ports of Haldia, Vishakhapatnam, Chennai and Thailand, Malaysia, Singapore and Indonesia.) Nevertheless, the trade volume in the South Asian region is dismal in general, with limited activity in the Bay of Bengal. In the Bay region, coastal shipping is already being discussed among India, Myanmar and Singapore. Thailand too is in talks for linking the Ranong port on its west coast with Myanmar, Bangladesh and India.

It is important to note that if there is an absence of sufficient trade, there will be absence of shipping. Thus, for ports to become effective, it is pertinent to produce tradable items, because unlike ancient times, ships now operate globally, and shipping lines dominate trade. In terms of trade in the Southeast Asian region, Indian presence continues to be limited, despite ASEAN being the biggest destination for Indian Foreign Direct Investment (FDI).⁵²

Thailand is India's fifth largest trading partner in the ASEAN region, with bilateral trade between the two countries amounting to USD 12.46 billion in 2018. Car parts and accessories form the majority of Thai exports to India, while the latter's exports to Thailand include crude oil and electrical machinery. Thai investments in India are mainly in infrastructure, real estate, and the food processing sector, and Indian investments entail infrastructure and steel sectors.⁵³ As Thailand has improved its economy in terms of ease of business, there is a lot of scope for Indian investment.⁵⁴ The port of Pak Bara, which is closest to Andaman and Nicobar Islands was explore to boost bilateral maritime trade. The Thai Ministry of Transport conducted a feasibility study of this port. In addition, the ministry also developed a plan to house container facilities and a passenger terminal. As part of its transport strategy, Thailand identified Pak Bara as a gateway to the west, and Laem Chabang as a gateway to the east.⁵⁵ Despite its favourable location and port depth, these plans were shelved in mid-2018 due to concerns regarding the environmental and social impact of the port.⁵⁶

The *Comprehensive Economic Cooperation Agreement* (CECA) is an important area for economic cooperation between India and Singapore. While it is often pointed out that the CECA has not lived up its expectations,⁵⁷ bilateral trade is gradually climbing. Singapore is a leading source of investments in India, and the country also engaged in a trading relationship with India's National Stock Exchange. The two countries are

working closely on the development of smart cities, urban development, startups and finance technologies. The respective foreign missions are also encouraging innovations and collaborations.⁵⁸

Commercial links between India and Malaysia are time-honoured, with Malaysia hosting the largest number of Indian joint ventures in any country.⁵⁹ Bilateral trade is heavily balanced in Kuala Lumpur's favour, with Malaysia as India's fourth-largest trading partner in the ASEAN region, and India as the seventh largest trading partner for Malaysia. The countries trade in goods and services, and have several private sector agreements. FDI from Malaysia is marked for infrastructure, telecommunications, oil and gas, tourism and human resources. India has a sizeable presence in Malaysia in infrastructure, software, chemical and manufacturing sectors.⁶⁰ Mineral fuels, foodstuff, machineries and iron form the bulk of export from Malaysia to India, and manufactured goods, chemicals and crude materials comprise some of the items imported by Malaysia. Though rice forms an important component of export basket from India, a part of the rice cargo travels illegally because of high import dues.⁶¹ There are issues regarding re-exports from Malaysia to India of products from China, which are banned for direct entry into India. India is one the largest importers of palm oil from Malaysia and cut⁶² import taxes to enable more imports of the oil. India's trade ties with Malaysia have deteriorated since the Indian government's decision on the Kashmir issue in August 2019. Malaysia condemned India's decision, following which there were reports of India planning to curb imports from the country; the latter maintains that it has not received any official communication regarding the issue.⁶³ This may have serious implications as India is the largest importer of palm oil from Malaysia and recent reports suggest⁶⁴ that New Delhi may look to Indonesia for supplementing palm oil provisions.

Trade between Indonesia and India have often been strained due to tariffs on the import of palm oil. However, with India recently relaxing these tariffs, trade ties are set to improve. In response to India's gesture, Indonesia will reduce taxes on the import of yarn from India in addition to revising rules on the import of sugar. The move comes after mutual visits of both heads-of-state where the two countries decided to double bilateral trade to USD 50 billion by 2025.⁶⁵ From mid-2018 to early-2019, three ports on the west coast of Sumatra have made connection with Bay of Bengal: Sabang, Malahayati and Teluk Bayur. Padang Bai on Bengkulu, located in the South is also ready to make further connection. Cruise lines regularly visit Phuket and east India ports. The growth of Sabang will allow the creation of a Bay of Bengal cruise hub between east India and Sabang. Table 6 summarises Indian exports to Indonesia, which show a great orientation to the western coast. Data indicates that 65 percent of products exported to Indonesia are shipped from ports in Western India, while only 35 percent are shipped through eastern ports.

The development of India's eastern ports and the creation of new ports in Enayam, Paradip, Sirkhadi and Sagar Island should provide greater opportunities for ports in Sumatra. Indonesia should encourage the revamp of Malahayati Harbour in Aceh, which has the largest export to India⁶⁶ and the increase in imports of Indian products in Teluk Bayur.

Padang's relationship with Chennai can be improved so that Chennai does not merely deliver products to Padang by air. Capacity building of Kuala Tanjung will also increase opportunities for Sagar Island and Kolkata to increase trade with Sumatra.

It has long been identified that it is not tariffs that act as a barrier to trade, but non-tariff measures or (NTMs) that are most often responsible for slowing down or altogether

Table 6: Shipment from India to Indonesia

Port Name	Position	Total value Exported (USD)	(%) of Export	No. Of Shipments Departed
Nhava Sheva Sea	West	126,356,690	24,18	9138
Vizag SEA	East	52,544,104	10,06	350
Chennai Sea	East	39,056,441	7,47	6249
Albratos CFS Pvt. Ltd. ICD	West	33,626,421	6,44	293
Kolkata Sea	East	33,535,268	6,42	522
Mundra Sea	West	30,870,126	5,91	665
Panki ICD	West	27,203,347	5,21	263
Piyala ICD	West	24,661,203	4,72	304
Cochin Sea	West	10,995,166	2,1	238
Kattupalli Port Sea	East	10,916,637	2,09	489
Others		132,782,122	25,41	19004
West Ports		253,712,952	65%	10.901
East Ports		136,052,449	35%	7.610

Source: <http://www.indiatradedata.com/what-india-import-export-indonesia>.

Note: This data is confined within 1-22 November 2016.

Table 7: India's Trade with Singapore, Thailand and Malaysia: Origins to India and Destinations from India (2015)]

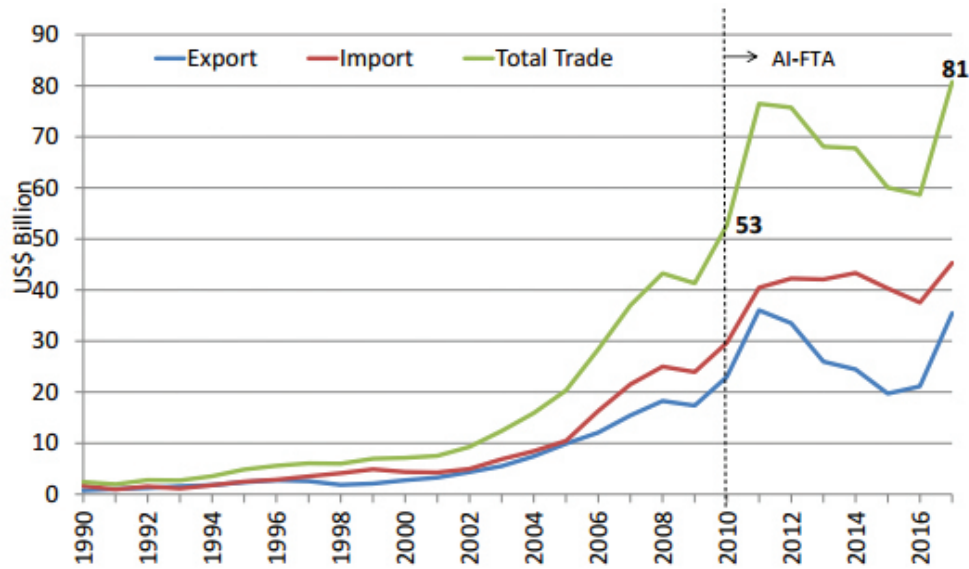
Origins to India			Destinations from India		
	Million DWT*	Share		Million DWT*	Share
Singapore	246.3	77.8%	Singapore	121.9	68.6%
Malaysia	37.8	11.9%	Malaysia	37.2	21.0%
Indonesia	29.3	9.3%	Indonesia	14.7	8.3%
Thailand	1.3	0.4%	Thailand	2.2	1.3%
Total	316.6	100%	Total	177.6	100%

*DWT: Dead Weight Tonnage

Source: So Umezaki, 'Japan's Free and Open Indo-Pacific (FOIP) vision and the maritime connectivity in the Bay of Bengal', IDE-JETRO, Presentation delivered at the conference on "Significance of the Bay of Bengal: India, Japan and South East Asia" organised by ORF Kolkata, Consulate General of Japan in Kolkata and the Centre for South and Southeast Asian Studies, University of Calcutta, 26 March 2019.

hindering trade. Some of the common NTMs in the region include cumbersome procedures, delayed customs clearances, an over-reliance on documentation, technical barriers to trade (TBT) and sanitary and phyto-sanitary (SPS) measures.⁶⁷

Figure 5: Trends in India's Trade with ASEAN



Source: Prabir De, "Trade and Maritime Connectivity in the Bay of Bengal," RSIS, New Delhi. Presentation delivered at the conference on "Significance of the Bay of Bengal: India, Japan and South East Asia," organised by ORF Kolkata, Consulate General of Japan in Kolkata and the Centre for South and Southeast Asian Studies, University of Calcutta, 26 March 2019.

India-ASEAN trade and investment has grown progressively and Figure 5 shows how trade jumped after the ASEAN-India FTA was signed in 2010. The primary challenge in economic links between India and the four countries part of this study is the largely one-way trade, where little is transported from India to these countries. This is mainly because India's manufacturing sector is less developed and less competitive than that in the four ASEAN countries. The Make in India initiative undertaken by the BJP government aspires to boost the manufacturing sector in the country, which stands to have an impact on the country's outbound trade in the long run. During a meeting of the member countries in Delhi in 2017, the draft text of BIMSTEC Coastal Shipping Agreement (Map 4) prepared by India was discussed. As small vessels incur less cost, the proposal seeks to provide an impetus to short-sea shipping⁶⁸ in the Bay of Bengal region.⁶⁹

In line with this, Indonesia-India also need to improve technology in other ports such as fishing ports in Sumatra and East India. A similar arrangement exists between ASEAN and Canada through the Memorandum of Understanding on the ASEAN-Canada Fisheries Post-Harvest Technology Project.⁷⁰ The expansion in the fisheries sector will greatly support the increase in trade since fish will be a source of nutrition for the poor in Sumatra and East India.

In addition to the bilateral, regional and sub-regional efforts to boost economic ties, there are proposals for short-sea shipping, which is considered an important solution for moving cargo over short distances. The coastal shipping agreement between India and Bangladesh has allowed short sea shipping^{i 71} between the two countries. For trade with Thailand, Malaysia, Indonesia and Singapore, Port Blair in the Andaman and Nicobar Islands may be considered as a nodal point. In January 2014, seven container

i Short sea shipping is referred to the transport of goods over maritime routes for short distances.

Map 4: BIMSTEC Coastal Shipping Agreement



Source: ASEAN-India Centre, mentioned by Prabir De, during his presentation on “Trade and Maritime Connectivity in the Bay of Bengal,” delivered at the conference on “Significance of the Bay of Bengal: India, Japan and South East Asia,” organised by ORF Kolkata, Consulate General of Japan in Kolkata and the Centre for South and Southeast Asian Studies, University of Calcutta, 26 March 2019.

lines—APL (American President Lines Ltd), Maersk Line, OOCL (Orient Overseas Container Line), CMA CGM (Compagnie Maritime d’Affrètement and Compagnie Générale Maritime), Emirates Shipping Line, Hamburg Süd and Regional Container Lines – agreed to cooperate on Far East to Indian subcontinent services, increasing the frequency of sailings from once a week to thrice a week.⁷² In early 2019, Regional Container Lines (RCL) expanded its service to include a service from Kolkata to Port Klang. The service will cater to customers from Southeast Asia who send shipments to Kolkata.⁷³

Indicators for India

A study by Deloitte and Assocham found that the logistics sector in the country is encumbered by inadequate infrastructure, lack of integration among stakeholders and slow adaptation to technology.⁷⁴ In terms of infrastructural capacities, ports on the east coast of India lag well behind those in the countries considered for this study. As the logistical capacities of ports on the east coast were explored in the first phase of the study on India’s Maritime Connectivity, this section will look at the overarching measures being undertaken to boost the same. There are five areas where India needs capacity building to make its ports and port related services more competent:

Operational Efficiency

Operational efficiency involves the systems, processes and infrastructure which lend to swift cargo handling. This has a significant impact on the turnaround time of cargo from the point of reaching the port to being offloaded, clearing customs and finally leaving the port. Shorter turnaround times indicate a greater degree of operational efficiency.

Better hinterland connectivity

Once cargo is cleared from the port, it is headed inland either to markets for distribution, or onward for another destination. In either case, the connectivity of the port with its hinterland is vital for seamless movement of cargo, be it over by road, rail, or in some cases inland waterways.

Digitisation of port operations

As the volume of cargo handled by ports increases, manual operations become tedious and time-consuming. Digitisation of port operations contributes to efficiency and minimises room for errors.

Flexible tax and duty structures

The seamless and smooth functioning of trade largely depends on prevalent tax and duty structures of ports. Flexible tax and duty structures enable ease of cargo movement, facilitating trade. Nonetheless, relaxation of taxes duties is a sensitive issue, and is dependent on a host of related factors. Thus, flexibility in consideration with practicable solutions needs to be undertaken.

Relaxed regulatory mechanisms

In addition to tax and duty structures, regulatory mechanisms govern the operations and functions of ports. In the presence of stringent and outmoded regulations, trade is hampered and consequently, ports stand to lose their business. Therefore, these governing mechanisms need to be streamlined while not compromising on required protocols.

While it may be argued whether the demand for commerce makes way for improved logistics or efficient logistics boosts commerce, the two are interconnected and require enabling mechanisms for optimal functioning.

It is important to note in this regard that capacities at public ports have been increasing⁷⁵ in recent years due to the removal of outmoded procedures and simultaneous investments in technology and automation. The Sagarmala initiative being rolled out by the government in various phases comprises an overhaul of the country's port sector. Comprising port modernisation and port-led development, the initiative is pioneering in its undertaking of an overhaul of port infrastructures, connectivity links and operational collation. With a projected cargo handling of 2.5 billion tonnes by 2025,⁷⁶ the Sagarmala initiative aims to enhance port capacity to bridge the gap between demand and supply. In addition to port-specific infrastructural developments, the initiative also looks at road and rail links which would benefit the often lacking last-mile connectivity of the country's ports with their immediate hinterland dedicated freight corridors, highway development programmes, industrial corridors and special economic zones.⁷⁷

Considering the scale and scope of the initiative, it is not surprising that it has been met with equal measures of appreciation and criticism. There also exist challenges such as mobilisation of funds, inadequate public-private sector participation, land acquisition issues and coordination among nodal implementing agencies. Nevertheless, the benefits of the initiative are expected to offset the hurdles. It is also true that for a country as large as India, it would be difficult to realise an initiative of such scale if it is rolled out incrementally.⁷⁸

The Major Ports Authority Act introduced in the Parliament in 2016 will be a vital measure giving greater autonomy to port boards in the decision-making process; contribute to the reformation of port management; and mark the first step in the transition to a 'landlord port' model.⁷⁹ The passing of the Bill remains pending in the wake of opposition from the Water Transport Workers Federation of India which claims that the move would corporatise ports.⁸⁰ The government, however, is already in the process of instituting measures that would relax port operations and boost investments and public-private partnership.

The recently released the draft National Logistics Policy is a step further towards improving the logistics sector in the country. The draft Policy is an acknowledgement that without a streamlined and efficient logistics network, commerce cannot grow. It aims to provide an impetus to enhance export competitiveness and improve the country's ranking in the Logistics Performance Index.⁸¹

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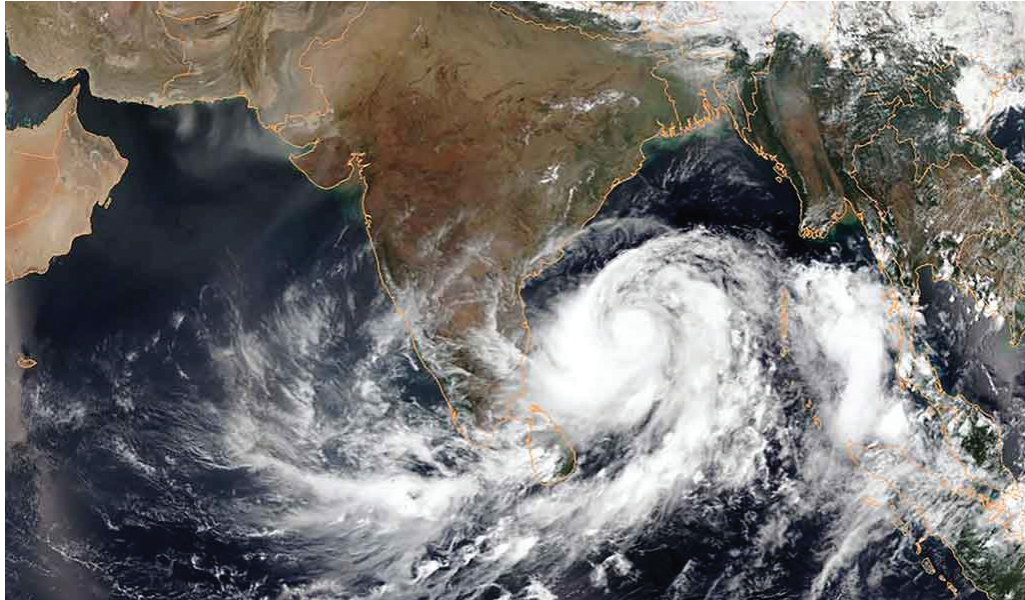
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- 77 Ibid.
- 78 Pratinashree Basu, "Can India beat the clock in modernising maritime commerce?" *East Asia Forum*, 27 April 2019, <https://www.eastasiaforum.org/2019/04/27/can-india-beat-the-clock-in-modernising-maritime-commerce/>.
- 79 Pratinashree Basu, "India's Plan to Jumpstart Its Maritime Industry," *The Diplomat*, 16 April 2019, https://thediplomat.com/2019/04/indias-plan-to-jumpstart-its-maritime-industry/?fbclid=IwARILCD4AaDPNGz1DfwQj6wM6-44vkxtz1YAgKGMFO1uLbZ_cXusS4Wpteeo.
- 80 "Water transport workers oppose move to 'privatise' major ports," *The Hindu Business Line*, 22 November 2018, <https://www.thehindubusinessline.com/news/national/water-transport-workers-oppose-move-to-privatise-major-ports/article25569838.ece>.
- 81 Draft National Logistics Policy, Logistics Division, *Ministry of Commerce*, Government of India, 5 February 2019.

CHAPTER 2:

Taming the Tempestuous Bay

Map 5: Cyclone Formation in the Bay of Bengal



Source: Dhaka Tribune, 2 May 2019, <https://www.dhakatribune.com/around-the-web/2019/05/02/how-cyclone-fani-got-its-name>.

Ancient Indian folktales describe princes crossing a “fierce and unbound sea”ⁱ in search of the promised ‘Subarnabhumi’—the land of gold. That sea is the Bay of Bengal—before it got its present name. The Bay has historically been turbulent, and even the term ‘cyclone’^{ii 2} has its origin in these waters.³ Rampant cyclones and tsunamis in this maritime space wreak havoc not only on the shores of its littorals but also have a detrimental impact on maritime trade and connectivity across the Bay. The transnational nature of the threat has thus increased the extension of relief assistance among littorals in times of crisis.

This chapter aims to examine how this collective concern has emerged as a prospective arena for strengthening connectivity between India and the littorals of the ‘extended Bay’: Thailand, Malaysia, Singapore, and Indonesia. There are four objectives: *first*, to understand the Bay’s natural turbulence and the region’s disaster vulnerability; *second*, to estimate India’s bilateral initiatives aimed at addressing this vulnerability; *third*, to understand multilateral collaborations between the Association of South East Asian Nations (ASEAN) and India; and *finally*, to investigate how connectivity in the Bay region may be enhanced through increased Humanitarian And Disaster Relief (HADR) cooperation between India and these Southeast Asian countries.

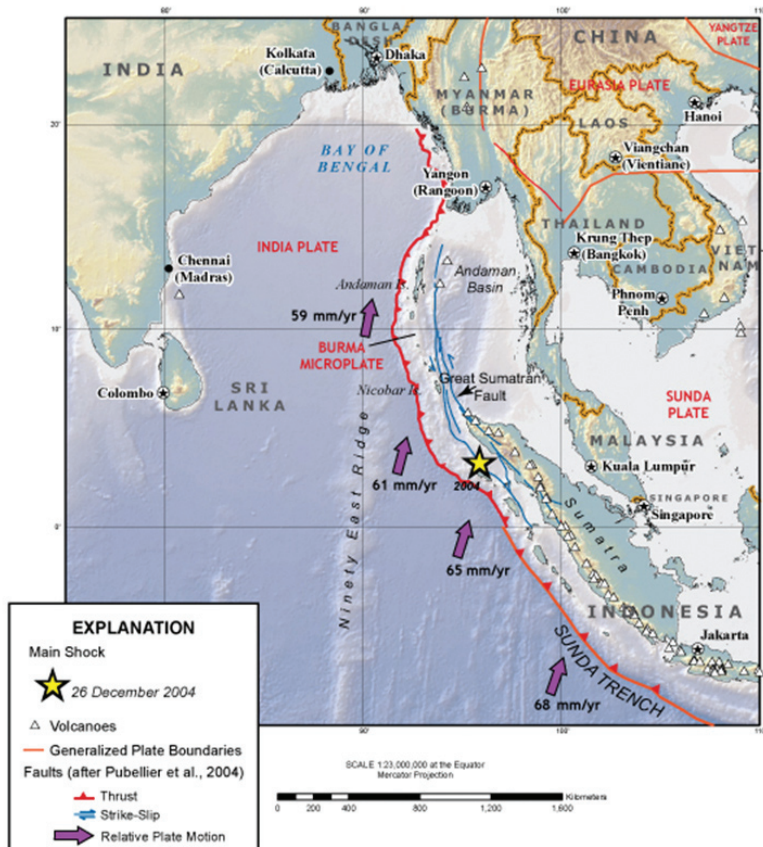
ii The word ‘cyclone’ was first used in the 1840s by the president of the Marine Courts Henry Piddington. It comes from the ancient Greek word “kukloma” which means “wheel, coil of a snake” to describe the storm that had hit the coast of Orissa in 1789.

Geographic Proximity and Shared Vulnerability

The frequency of cyclones in the Bay is attributed to its funnel-shaped formation low flat coastal terrain,⁴ shallow waters, and the ‘easterly waves.’^{iii 5} This maritime space is particularly unsettled by the retreating southwest monsoon winds in the months of October and November. The Bay’s Andaman Sea area is especially vulnerable as it experiences not only cyclones that originate in the Bay, but also those that are attracted from the Pacific Ocean. The absence of a large landmass in between mitigates the possibility of a buffer. Other than cyclones, tsunamis are also common in this part of the Bay because it is home to the Andaman-Sumatra Subduction Zone (Map 6). This refers to an area of intense seismic activity along the mutually jostling Eurasian and Indo-Australian tectonic plates that lie parallel to the Andaman and Nicobar Islands (ANI).⁶

The resulting earthquakes are frequent and often intense, triggering tsunamis. Due to these physical factors, India and the four countries in consideration are vulnerable. On average, the Indian east coast facing the Bay experiences three cyclones every year.⁷ The ANI—which are located in the Andaman Sea and close to these Southeast Asian littorals—are more vulnerable and thus classified under ‘Very High Damage Risk Zone,’ often experiencing intense seismicity. Amongst the littorals, even though Thailand opens directly into the Bay, it witnesses intermittent flooding, typhoons, earthquakes,

Map 6: The Andaman–Sumatra Subduction Zone



Source: *Tectonics of Sumatra-Andaman Islands*, USGS, https://www.usgs.gov/centers/pcmsc/science/tsunami-generation-2004-m91-sumatra-andaman-earthquake?qt-science_center_objects=0#qt-science_center_objects.

iii Easterly waves are small travelling circulations that have the potential to develop into larger tropical cyclones.

and tsunamis. This is because the ANI lie parallel to the Thai states of Ranong, Phang Nga, and Phuket,⁸ and act as a buffer to the country's west coast. Similarly sheltered from the open Bay by the Sumatra province of Indonesia, Malaysia and Singapore are also usually spared from major cyclones though Malaysia experiences occasional earthquakes and floods. Both countries also lie outside the 'Pacific Ring of Fire'. Indonesia, with its position at the intersection of the Bay and the Pacific Ocean, is more often buffeted by cyclones. The west of the country also experiences frequent tsunamis from the Subduction zone while its eastern half lies in the 'Pacific Ring of Fire.'^{iv 9}

Recent Natural Calamities

Fifteen years have passed since the tsunami of 2004, yet no discussion on natural calamities, especially in the Bay, can begin without a reference to the disaster. This was the deadliest in recorded history, triggered by an earthquake of 9.1 magnitude along the Andaman-Sumatra Subduction Zone. The death toll around the rim of the Bay was pegged at approximately 2,30,000 people.¹⁰ Banda Aceh in Indonesia was the worst hit, the southeastern coast of India and the ANI also suffered massive damage¹¹, and Thailand and the southeastern coast of the Indian mainland were also severely affected. Amidst the destruction, the so-called 'Malaysian miracle' made headlines because despite being close to the epicentre, the country suffered a fraction of the death and destruction seen by the others. Further east, Singapore was untouched by the tsunami. Since 2004, the Bay littorals have not faced a calamity of similar intensity. Nonetheless, in the past five years, India and its maritime neighbours in the Andaman Sea have experienced a wide array of other natural disasters.^{v 12}

In 2014, India's east coast was hit by Cyclone Hud Hud, the most devastating cyclone to have hit an urban centre—Visakhapatnam—in recent years. This cyclone, that had its origins in the Andaman Sea, triggered landslides and collapsed communication lines in the ANI as it moved to the northwest.¹³ In the same year, Malaysia experienced catastrophic floods. Numerous people were killed and around a quarter of a million were displaced.¹⁴ The following year was one of relative calm and these countries were not struck by any major natural crises.

The year 2016 was again turbulent. Of the four cyclones that affected India that year, Cyclone Vardah was the most severe, leaving many tourists stranded in the ANI¹⁵ before affecting the country's east coast where around 9,000 people had to be evacuated to relief camps.¹⁶ Aceh in Indonesia suffered from a 6.4 magnitude earthquake, which left umpteen dead. The country also experienced intense flooding that affected 15,000 people in Aceh alone.¹⁷ Severe floods were also experienced in Thailand that year in the southern provinces, causing several deaths.¹⁸ In 2017, however, no overwhelming damage due to natural disasters was recorded.

2018 was another tumultuous year. In August 2018, floods ravaged the southern state of Kerala in India. They claimed a high death toll, displaced a million or more people, and wreaked high infrastructural damage.¹⁹ In November, Cyclone Gaja hit the east coast of the country, claiming a number of lives in its wake. In September 2018 Palu in Indonesia witnessed a tsunami, which left a trail of devastation.

iv The Pacific Ring of Fire is an arc around the Pacific Ocean in which many volcanoes and earthquakes originate.

v A natural hazard is classified as a 'disaster' when a substantial amount of population is affected by it.

In 2019, India has so far witnessed Cyclone Fani on its east coast, which has caused significant loss of lives.²⁰ In March 2019, the island of Lombok in Indonesia experienced intense flooding causing deaths and damage to property.²¹

These events suggest that amongst the Bay littorals, India and Indonesia are most frequently affected by natural disasters. In case the disasters are of unnaturally high intensity, affected countries often request external support. However, even in the face of natural calamities of its own, India has extended HADR to its neighbours, making it an interesting case study for response mechanisms.

India as HADR Provider

India is the largest power in the Bay of Bengal region in terms of size and naval prowess. As such, its assistance is often sought by other Bay littorals in the context of disaster management. In 2004, despite itself being affected, India deployed several HADR operations to aid other disaster-affected littorals at the behest of the Indian Navy and the Indian Air Force (IAF). The country launched simultaneous disaster relief operations: Operation Castor to Maldives, Operation Rainbow to Sri Lanka, and Operation Gambhir to Indonesia.²² Naval ships and aircraft deposited about 550 tonnes of relief supplies, including 200 tonnes of provisions and medicines. Those affected appreciated India's timely and effective assistance across the internet and audio-visual media and the country's HADR credibility gained prominence in the region.²³ The Indian government also committed US \$500,000 to Thailand as relief aid.²⁴

India also extended HADR assistance to Myanmar during Cyclone Nargis in 2008²⁵ and again in 2015, when floods caused by Cyclone Komen devastated the country.²⁶ More recently, India was among the first responders when the Indonesian government requested assistance after the 2018 Palu tsunami. The Indian Navy launched Operation Samudra Maitri (Oceanic Friendship) as disaster response, and INS Tir, INS Sujatha, and INS Shardul of the Southern Naval Command were deployed to Indonesia with relief supplies.²⁷ Two IAF aircraft, C-130J and C-17, were also deployed, carrying onboard medical personnel and relief material²⁸ (For more details on India's disaster relief operations see Appendix II).

For its part, India usually refrains from accepting disaster relief from other countries, as was witnessed during the devastation wrought by the 2004 tsunami. Guarding this stance during the tsunami, the Indian explanation was that rescue and relief were tasks that India was better equipped to execute on its own—given its economic profile and advanced technological know-how. The country's gesture was also viewed as an act of solidarity towards worse-affected countries like Indonesia and Thailand.²⁹ However, India maintained that it was open to receiving appropriate assistance from all quarters for the later phases of recovery that involved rehabilitation and reconstruction.³⁰ In 2013 too, when the country's northern state of Uttarakhand was severely affected by floods, India abstained from accepting aid from foreign governments.³¹ Indeed, the country seemed more comfortable accepting financial assistance from multilateral agencies like the World Bank and the Asian Development Bank.³² The stance was reaffirmed during the Kerala floods of 2018 when the country chose to rely completely on domestic resources.³³ But Mercy Relief, Singapore's largest independent disaster relief agency, deployed a disaster response team to Kerala.³⁴

India's hesitance in accepting foreign aid has been attributed to a 'policy precedent' set in 2004, when the then Indian Prime Minister, Manmohan Singh stated, "We feel that we can cope with the situation on our own and we will take their help if needed," in the context of the tsunami.³⁵ This stance has been articulated in India's

National Disaster Management Plan of 2016, which states, “As a matter of policy the Government of India does not issue any appeal for foreign assistance in the wake of a disaster.” However, if a foreign government voluntarily offers relief aid as a “goodwill gesture,” India may accept.^{vi 36} This reluctance to accept aid has also been explained in terms of India’s ‘national pride’. As the ‘net security provider’ of the region, a role which Singh acknowledged by saying that “India aspires to take a leading strategic role throughout the Indian Ocean and to expand its strategic reach even into the Pacific”, it is also the expectation of a number of small regional powers that India shall provide overall security of the region.³⁷ In such circumstances the narrative of “self-sufficiency” is indeed better suited for India’s image.

This reluctance to accept help from foreign governments is also not exclusive to India. “Sensitivity to sovereignty” or the concept of ‘national pride’ continues to characterise nations in South and Southeast Asia. Thus, even if assistance is accepted or requested, its stipulations are clearly ordained by the recipient country. For example, in the aftermath of the 2004 tsunami, the Indonesian Vice-president Jusuf Kalle announced that external forces were welcome to help—but only for a limit of three months. It is noteworthy that despite this apprehension about loss of sovereignty through external interference, it is customary among these countries to engage their armed forces in providing HADR. This is in sharp contrast to disaster response in other parts of the world where the use of military assets is a last resort when responding to widespread, high-intensity disasters. Collaborative disaster response amongst India and the littorals in question is limited, despite the similarity of their approaches towards accepting aid. The sector of disaster preparedness shows more promise, as efforts are already underway to enhance bilateral engagements in this regard.

Building Bridges across the Bay

Amongst the Bay littorals, India possesses the largest HADR force. Over the years, the country has institutionalised its approach towards disaster management through various legislative policies and plans such as the Disaster Management (DM) Act of 2005, the National Disaster Management Policy of 2009, the National Disaster Management Plans of 2016 and 2018 (draft), State and District Disaster Management Plans, and institutions such as the National, State, and District Disaster Management Authorities and their respective Disaster Management Forces. India’s defence troops are also trained to provide HADR.

India’s approach towards disaster management is largely influenced by the Sendai Framework of Disaster Risk Reduction 2015–2030; an international non-binding agreement, aimed at “strengthening disaster risk governance to manage disaster risk.”³⁸ This implies exchange of ideas and practices amongst the regional powers through collaborative endeavours.³⁹ India’s National Disaster Management Plan of 2016 states that it will provide HADR whenever necessary and is eager to play a major role in building disaster resilience in the Asia-Pacific region through sustained regional partnerships.⁴⁰ All the Bay littorals in consideration are also signatories to this Framework, and India has embarked upon bilateral initiatives with each to improve mutual disaster preparedness. However, these efforts have not been confined to only bilateral agreements but have also extended to overlapping membership in regional/sub-regional forums. As in most countries, in India too, the armed forces have the

vi The draft National Disaster Management Plan of 2018 further specifies that all such offers must be routed through the Indian Ministry of External Affairs and will only be accepted in consultation with the Ministry of Home Affairs after evaluation on a case by case basis.

task of undertaking search and rescue missions and other relief operations in times of crises. HADR collaborations thus prominently feature in bilateral or multilateral naval cooperation exercises.

Thailand

The Department of Disaster Prevention and Mitigation under Thailand's Ministry of Interior is the key government agency responsible for national disaster management in the country.⁴¹ As sovereignty and the concept of non-intrusion are held in high regard in Thai culture,⁴² it is not customary for the nation to seek external assistance in crisis situations. This culture has been complemented by the approach taken by Thai political authorities, seeking to retain control over response operations. Unfortunately, the notion that assistance shall always be delivered internally has created deficiencies in the management of large-scale disasters. Accordingly, Thailand has been more a recipient of HADR aid than a donor. However, when international military assistance is accepted, it is done on a bilateral basis by the Ministry of Foreign Affairs and the relevant embassy. Unlike relief aid, Thailand does request technical assistance in disaster management—particularly from its fellow ASEAN countries.⁴³

Thailand is gradually developing its disaster management ties with India. The Indo-Thai HADR Table-top Exercise began in 2016 between the Indian Air Force and Royal Thailand Air Force. The exercise aimed to lay down a procedure for joint disaster relief operations and establish a decision support system at various stages of relief operations.⁴⁴ Its most recent edition 'Ex Siam-Bharat: 17' was held in 2017. More recently in 2018, both countries sought to enhance defence ties by promoting cooperation in several areas including disaster management.⁴⁵ Moreover, the two countries engage in Co-ordinated Patrol or CORPAT Exercises, the 26th cycle of which was held in 2018 in the Andaman Sea, with participation from the Andaman and Nicobar Command and the Royal Thai Navy. The Exercise has facilitated the conduct of Search and Rescue (SAR) operations, which are an integral part of HADR.⁴⁶ Thailand also participates in India's Indian Ocean Naval Symposium (IONS), and the third meeting of the IONS Working Group on HADR was held in September 2018 in India's Eastern Naval Command at Visakhapatnam.⁴⁷ Thailand also participates in India's MILAN Exercises and both countries are active in the ASEAN Regional Forum Disaster Relief Exercise. As of January 2019, Thailand has also decided to partner with India and Singapore for a trilateral naval exercise in the Andaman Sea,⁴⁸ as confirmed by the Indian Prime Minister in the 2018 Shangri-La Dialogue.⁴⁹

The two countries are also members of the East Asia Summit, the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC), and the Indian Ocean Rim Association (IORA). Disaster Preparedness and Mitigation are concern areas in all these multilateral forums. Among these forums, BIMSTEC is particularly important, as it is a sub-regional organisation operating in the waters of the Bay of Bengal. India leads the BIMSTEC priority sector on Environment and Disaster Management⁵⁰ and recently a plethora of initiatives have been undertaken to boost the HADR capacity of BIMSTEC. It may thus be observed that though the countries share multiple multilateral forums and participate in regional endeavours towards disaster mitigation, their bilateral efforts in this area are a recent development.

Malaysia

In Malaysia, the National Disaster Management Authority under the Prime Minister is the nodal agency for disaster management. It performs functions that were previously coordinated by Malaysia's National Security Council.⁵¹ The Malaysian Department

of Defence is authorised to respond to requests of disaster assistance from foreign countries. The Special Malaysian Disaster Assistance and Rescue Team, popularly known as SMART, engages in search and rescue operations when deployed for disaster response. During the 2001 Gujarat earthquake, SMART was deployed for assistance to India.⁵²

More recently, during Prime Minister Modi's visit to Malaysia in 2015, the two countries agreed to establish mechanisms for information sharing, including HADR and white shipping.⁵³ Two years later, Dato' Sri Mohd Najib Tun Abdul Razak, then Prime Minister of Malaysia, visited India to commemorate sixty years of partnership. A Joint Statement was issued on India-Malaysia Diplomatic Relations and there was talk of operationalising a mechanism for information sharing for HADR.⁵⁴ The year 2017 also witnessed a four-day visit by INS Satpura and INS Kadmat to Port Klang—aimed at strengthening bilateral ties between the two nations. Along with social calls and sports fixtures the two navies also took part in a joint HADR exercise to disaster preparedness to natural as well as man-made disasters.⁵⁵ Malaysia and India also share common multilateral forums such as the East Asia Summit, IORA, and disaster relief exercises. In that regard, Malaysia is one of the oldest participants of the MILAN exercise and also takes part in the ASEAN Regional Forum Disaster Relief Exercise along with India.

In 2018, PM Modi—while talking on the side-lines of the ASEAN and East Asia Summit about security and defence cooperation—stated that both countries would aim to strengthen disaster response in the region.⁵⁶ Joint naval exercises—last held in 2008 between the two navies in the waters of the Malacca Strait⁵⁷—will soon be upgraded and a SU-30 Forum⁵⁸ will be set up.

Singapore

The Ministry of Home Affairs is the primary authority responsible for civil defence emergency preparedness and disaster management in Singapore. Though the country itself is not particularly vulnerable to natural calamities, Singapore has emerged as a key provider of HADR in the region. Their Ministry of Foreign Affairs manages the requests for foreign support, and requests can also be made bilaterally through Singapore embassies. The Singapore Armed Forces have conducted several 'Search and Rescue Operations,' especially in the ASEAN countries.⁵⁹ Singapore was one of the first countries to help Indonesia in through disaster relief assistance during the tsunami of 2004.

With regard to Singapore's engagement with India, there have been a few developments recently. In 2015, Prime Minister Lee Hsien Loong of Singapore and the Indian Prime Minister Narendra Modi discussed the vulnerability of the Asia-Pacific region to natural disasters during the latter's official visit. Seeing the scope for significant bilateral cooperation, Modi agreed to support regional efforts to create stronger HADR capabilities amongst other commitments. Accordingly, both armed forces welcomed strengthened disaster relief partnerships. India was also accredited as an International Liaison Officer to the Changi Regional HADR Coordination Centre in Singapore in July 2015.⁶⁰

Singapore and India also participate in the multilateral forums of East Asia Summit, and IORA in the purview of disaster management. Singapore is also one of the oldest participants of India's multilateral MILAN exercise and both nations have also held the Singapore-India Maritime Bilateral Exercise (SIMBEX) since 1994. The 2018 edition of the SIMBEX was the largest yet.⁶¹ A trilateral naval exercise between the navies of India, Thailand, and Singapore is also planned.⁶² As against other countries in the region,

Singapore has perhaps the least bilateral disaster management exchanges with India. However, Singapore, like India, is an HADR donor.

Indonesia

Badan Nasional Penanggulangan Bencana or the BNPB, which reports directly to the Indonesian President, is the primary agency responsible for disaster management in this country. It is also responsible for mobilising international assistance. Given the intensity and frequency of natural disasters that Indonesia endures, it is more a recipient of HADR than a donor. Foreign assistance is usually requested based on bilateral agreements, especially with the ASEAN countries or through multilateral means.¹⁶³

The plethora of bilateral disaster management initiatives between India and Indonesia indicate how strongly both countries are cultivating joint disaster response given their shared vulnerabilities. A Memorandum of Understanding (MoU) was signed between the National Disaster Management Authority of India and the National Agency for Disaster Management of Indonesia in 2013 with the aim to develop cooperation in this area. This includes exchange of information in the field of disaster management, training and capacity building, exchange of experts and human resources on disaster management, organisation of joint conferences, seminars, workshops, and exercises and trainings in the relevant field.⁶⁴ More recently in August 2018, the Indian Cabinet approved an MoU between India and Indonesia on Scientific and Technological Cooperation, and 'Disaster' was once again identified as potential area for immediate collaboration.⁶⁵ Both countries also welcomed the adoption of the 'Shared Vision on Maritime Cooperation in the Indo-Pacific between India and Indonesia,' which includes a reference to expanding cooperation in disaster risk management.⁶⁶

In the sphere of disaster management exercises, the Andaman and Nicobar Command (ANC) represents India in the India-Indonesia coordinated patrols or CORPAT exercises. The 33rd edition was held in March 2019.⁶⁷ Indonesia is also one of the oldest participants of MILAN and India has been one of the oldest participants in Indonesia's Multilateral Naval Exercise Komodo.⁶⁸ In November 2018, the two countries undertook their maiden bilateral naval exercise, *Samudra Shakti*, with the aim to expand maritime cooperation and exchange best practices.⁶⁹ India and Indonesia also provided exercise bulletins and detailed tsunami threat advice in the UNESCO-organised Indian Ocean-wide tsunami mock exercise (drill)-IOWave18 for the Indian Ocean Tsunami Warning and Mitigation System (IOTWMS) in 2018.⁷⁰ Indonesia and India are thus the most active collaborators in the region with regard to disaster management. It is also noteworthy that the Andaman Sea surfaces in a number of these bilateral engagements. This indicates that utilising the ANI's proximity to these littoral countries may lead to developing better connectivity with them through HADR.

Andaman and Nicobar Islands: A Point of First Response?

Landfall Island in India's ANI is only 20 km south of Myanmar's Coco Island and the Indira Point is only 80 kilometres from the city of Aceh in Indonesia. The ANI also lie parallel to the Myanmar state of Tanintharyi and the Thai states of Ranong, Phang Nga and Phuket as has been mentioned before.⁷¹

Taking advantage of this proximity, the Island chain (Map 7) may be developed as a point of first response between India and Southeast Asia in disaster situations to save time in emergencies. In that regard, the Andaman and Nicobar Command (ANC) is developing its disaster management capacity and has vessels designed to provide

Map 7: Proximity of the Andaman and Nicobar Islands to Southeast Asia



Source: *Andaman and Nicobar Islands*, Bird Forum, https://www.birdforum.net/opus/Andaman_and_Nicobar_Islands

HADR. The Indian Navy has recently inducted the second ship of the Landing Utility Craft class into the ANC which will enhance the Command's capacity for disaster relief operations.⁷² It also has "HADR bricks," consisting of relief essentials such as generators, dry food, and clothing. In future a hotline could also be established between Port Blair and the deep-sea port that India is developing in Sabang to foster information sharing. The ASEAN Coordinating Centre for Humanitarian Assistance on Disaster Management is also located in Jakarta. Therefore, establishing a robust early warning system between India and Indonesia may ultimately pave the way for better cooperation between India and ASEAN in the domain of HADR.

The ANC also conducts the multilateral naval exercise MILAN in the Andaman Sea with a key focus on search and rescue operations. Indonesia, Malaysia, Singapore, and Thailand have been participating in the exercise for several years now. In the 2018 edition of this exercise, these four countries were joined by Myanmar to participate in Miles-18 (a multi-national naval exercise held for the first time as a part of MILAN 2018) along with nine other Indian naval ships.⁷³

There is now a perceived change in ANI governance; India's earlier protectionist approach to preserve the Islands in its existential setting is now being balanced by a need to effectively and sustainably harness the Islands' natural and human capital for overall stability and welfare.⁷⁴ This is increasingly facilitating the optimal utilisation of the Islands as a point of first response in providing HADR.⁷⁵

Increasing bilateral ties and strengthening existing inter-country linkages is, however, insufficient to develop humanitarian assistance as an arm of connectivity between India and these Southeast Asian countries in the extended Bay. This is because the disaster management mechanisms and approach of the latter are largely guided by the

ASEAN. Accordingly, apart from nurturing disaster management in bilateral relations, India has also sought to cultivate these engagements from a more comprehensive perspective through its ties with the regional organisation. Thus, the larger implication of ASEAN has to be understood for India to navigate this space successfully.

Multilateral Partnership: ASEAN Linkages

In view of the geographic vulnerability that was exposed after the tsunami of 2004, ASEAN sought to create a regional framework covering all aspects of disaster management through its various platforms and mechanisms.⁷⁶

The ASEAN Agreement on Disaster Management and Emergency Response (AADMER) outlines its basic format for jointly responding to disasters.⁷⁷ The ASEAN Coordinating Centre for Humanitarian Assistance on Disaster Management (AHA Centre) is central to ASEAN-centric disaster management activities and operations, and is responsible for communicating disaster risk to its members.⁷⁸ In addition, the ASEAN Committee on Disaster Management (ACDM) also oversees the implementation of AADMER. In the ASEAN Ministerial Meeting on Disaster Management of 2015, the vision of “One ASEAN One Response” gained ground. Aligned with this vision, in 2017, ASEAN issued its Joint Disaster Response Plan. The ASEAN Secretariat’s Disaster Management and Humanitarian Assistance Division also provides policy and program support in ASEAN engagements in disaster management. ASEAN and its members thus function within a comprehensive disaster management framework.

Figure 6: One ASEAN One Response



Source: AHA Centre, Twitter, <https://twitter.com/ahacentre/status/994924846436921346>.

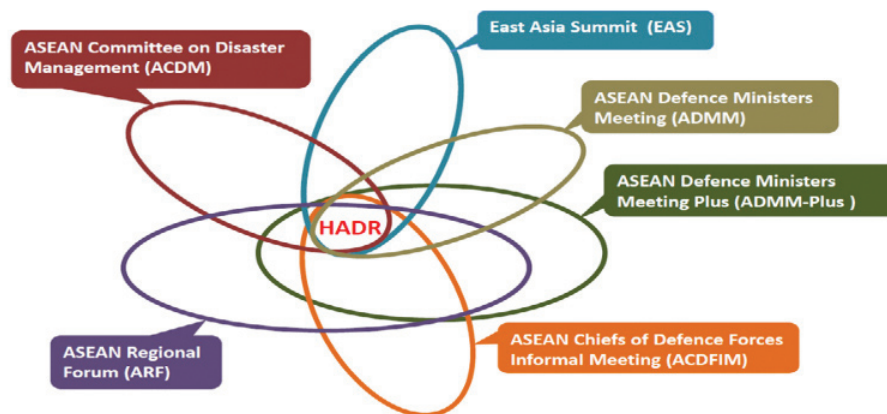
India's Role as an ASEAN Partner

Capacity building in HADR is a mutually beneficial situation for all the involved parties. While the ASEAN recipient member countries can develop their capabilities to cope with natural disasters through extra-regional funding and expertise, the donor powers can also strengthen their regional partnerships with ASEAN. However, the strategic intentions of the donor countries do not always align with those of the recipient countries. Therefore, it is up to either ASEAN or these member states to draw a balance between their HADR requirements and the strategic intentions of extra-regional donor nations.⁷⁹ With ASEAN developing its disaster management expertise, the past few years have witnessed an increase in collaboration between member states and extra-regional powers or disaster management agencies. This has been the case with India, which is a sectoral partner of ASEAN since 1992, a dialogue partner since 1996, and a Summit-level partner since 2002. This may be attributed to the marked similarities in which both India as a country and ASEAN as a regional organisation approach HADR.

Disaster Management in both cases encompasses all the aspects of a disaster management cycle, i.e., disaster preparedness, response, and relief through reconstruction and rehabilitation. The AADMER refers to “the range of activities, prior to, during and after the disasters, designed to maintain control over disasters and to provide a framework for helping at-risk persons and/or communities to avoid, minimise or recover from the impact of the disasters.”⁸⁰ Similarly, according to India's Disaster Management Act of 2005, disaster management means “a continuous and integrated process of planning, organising, coordinating and implementing measures which are necessary or expedient for (i) prevention of danger or threat of any disaster; (ii) mitigation or reduction of the risk of any disaster or its severity or consequences; (iii) capacity-building; (iv) preparedness to deal with any disaster; (v) prompt responses to any threatening disaster situation or disaster; (vi) assessing the severity or magnitude of effects of any disaster; (vii) evacuation, rescue and relief; (viii) rehabilitation and reconstruction.”⁸¹ The Indian definition of disaster management explicitly states what is already inherent in the ASEAN's definition, indicating a synergy in their approaches.⁸²

Another similarity lies in both India and ASEAN's ‘sensitivity to sovereignty’. The AADMER begins with the undertaking that the “sovereignty, territorial integrity and national unity of the Parties shall be respected.”⁸³ Moreover, the affected country will

Figure 7: Important Groups under ASEAN's ambit of Regional Disaster Management



Source: Shane D. Huges, “ASEAN's Role in Regional Natural Disaster Response,” ASEAN in World Politics, Chulalongkorn University, 25 December 2015, <https://www.cfe-dmha.org/LinkClick.aspx?fileticket=ofVFwIKBLnM%3D&portalid=0>.

have the first right to respond to the disaster and any accepted external assistance will be under its control and supervision. This priority allotted to the autonomy of the affected country may be attributed to the fact that ASEAN is an inter-governmental organisation based on the principles of consensus and non-interference in domestic affairs.⁸⁴ India's HADR operations have also always conformed to the "typically Asian view" being "apolitical," "decentralised," and in most situations, taking a "government-to-government approach." It is cautious in its HADR because it believes that the 'responsibility to protect' should not be a pretext for humanitarian intervention or unilateral action.⁸⁵ The similarities in their outlooks towards mutual respect further strengthen the case for HADR connectivity between India and the ASEAN.

Against this backdrop, India is an active participant in a number of ASEAN's HADR diplomatic initiatives, which can serve as forums for India to enhance connectivity with the member countries. Like India's inter-country relations with the Southeast Asian countries, its engagement with ASEAN in the purview of disaster management may also be categorised as follows:

India's participation in ASEAN disaster management forums

India is a participant in the ASEAN Defence Ministers Meeting (ADMM-Plus), which is a significant ministerial-level platform in regional security architecture for promoting strategic dialogue and defence cooperation between ASEAN and its dialogue partners.⁸⁶ In October 2018, the ADMM-Plus Expert's Working Group on Military Medicine was organised in Lucknow under the co-chairmanship of India and Myanmar.⁸⁷ India has also been a member of the ASEAN Regional Forum (ARF) since 1996. This forum creates a "non-binding strategic guidance for HADR" and specifically caters to coordination of relief efforts in the aftermath of natural disasters. India has also been part of the East Asia Summit—a regional platform amongst countries of the Asia-Pacific region to promote regional peace, security and prosperity. Natural Disaster Management is one of its six priority areas in which India endorses regional collaboration. India hosted the 'EAS-India Workshop 2012: Building Regional Framework for Earthquake Risk Management' in New Delhi on 8-9 November 2012. It also hosted the first Meeting of the 24x7 Points of Contact among the National Disaster Response Agencies of East Asia Summit (EAS) countries on 4-5 December 2014 in New Delhi during which a Virtual Knowledge Portal (VKP)⁸⁸ was launched.⁸⁹

India as a partner in ASEAN disaster response exercises

The ASEAN Regional Forum Disaster Relief Exercise, popularly known as ARF DiREX, witnesses active participation from ASEAN member states in consortium with the ASEAN dialogue partners and other international organisations. In 2011 INS Kesari participated in the Table Top Exercise and Field Training Exercise of the ARFDiREX in Indonesia.⁹⁰ More recently India also participated in the ASEAN Regional Disaster Emergency Response Simulation Exercise 2018 (ARDEX-18) that had been organised to test the ASEAN Standard Operating Procedure for Regional Standby Arrangements and Coordination of Joint Disaster Relief and Emergency Response Operations.⁹¹

India-ASEAN plans for regional collaboration in disaster management

Keeping alive the spirit of regional collaboration in HADR, the Plan of Action to Implement the ASEAN-India Partnership for Peace, Progress and Shared Prosperity (2016-20) was formulated in 2016, according to which India and ASEAN must strive to encourage cooperation on humanitarian assistance and disaster management,

especially in the area of sharing experiences and best practices. There is also a provision to encourage regular consultations between India and the ASEAN Committee on Disaster Management to facilitate synergy among multilateral cooperation mechanisms on Disaster Management.⁹² The ASEAN Joint Disaster Response Plan also acknowledges the role of ASEAN Dialogue Partners and states that in the past, these Dialogue Partners have often provided personnel, equipment, and funding to support the humanitarian operations of ASEAN and/or the affected Member State. The document seeks to further facilitate ties with these countries through increased information sharing and mobilisation of resources.⁹³

India and ASEAN celebrated 25 years of their partnership in January 2018. The Delhi Declaration was issued to mark the ASEAN-India Commemorative Summit under the theme of “Shared Values, Common Destiny.” In the purview of disaster management and humanitarian assistance, India promised to support the work of the AHA Centre in the realisation of the ASEAN Declaration on “One ASEAN, One Response: ASEAN Responding to Disaster as One in The Region and Outside the Region.” The country also aspires to establish a close partnership with the AHA Centre for better coordination in regional disaster management.⁹⁴

The Sendai Framework is largely responsible for inspiring this regional bonhomie that has been growing in the past few years. On the Southeast Asian front this may be attributed to ASEAN’s efforts towards increased engagement with its dialogue partners and the growing importance of the Bay of Bengal as a strategic maritime space. On the Indian front, this may be traced to the country’s focus on its ‘Act East’ and ‘Neighbourhood’ Policy through which India seeks to bolster its ties with the Southeast Asian and Asia-Pacific countries.

It is noteworthy that since 2015, there has been an upsurge in India’s bilateral collaboration in HADR with its maritime neighbours. This may be attributed to the “five –fold framework for India’s maritime engagement,” outlined by Indian Prime Minister Narendra Modi during his March 2015 visit to Seychelles and Mauritius. The framework establishes India’s focus to deepen cooperation with its regional partners to cope with matters of maritime security like natural disasters through multilateral collaboration.⁹⁵ India’s maritime military strategy, *Ensuring Secure Seas: Indian Maritime Security Strategy*,⁹⁶ which outlines India’s role as a “net security provider,” and the Vision of SAGAR that aspires towards Security and Growth for all in the Region (in the Indian Ocean Region)⁹⁷ were launched in the same year. In the consequent engagements with maritime neighbours, HADR as a trans-national threat has been one of the key areas of cooperation. Subsequently, India’s first National Disaster Management Plan was released in 2016, articulating India’s enthusiasm to build disaster resilience in the region through sustained regional partnerships.

Amongst the bilateral relations with littorals, ties have been particularly strengthened with Thailand and Indonesia, the two countries whose policies (Thailand’s Look West policy and Indonesia’s Global Maritime Fulcrum) converge with India’s Look/Act East Policy in the Bay. With the Bay of Bengal providing the perfect convergence point for littoral interests and the positive regional focus generated by new policies, collaborative HADR cooperation is a crucial arena for the future.

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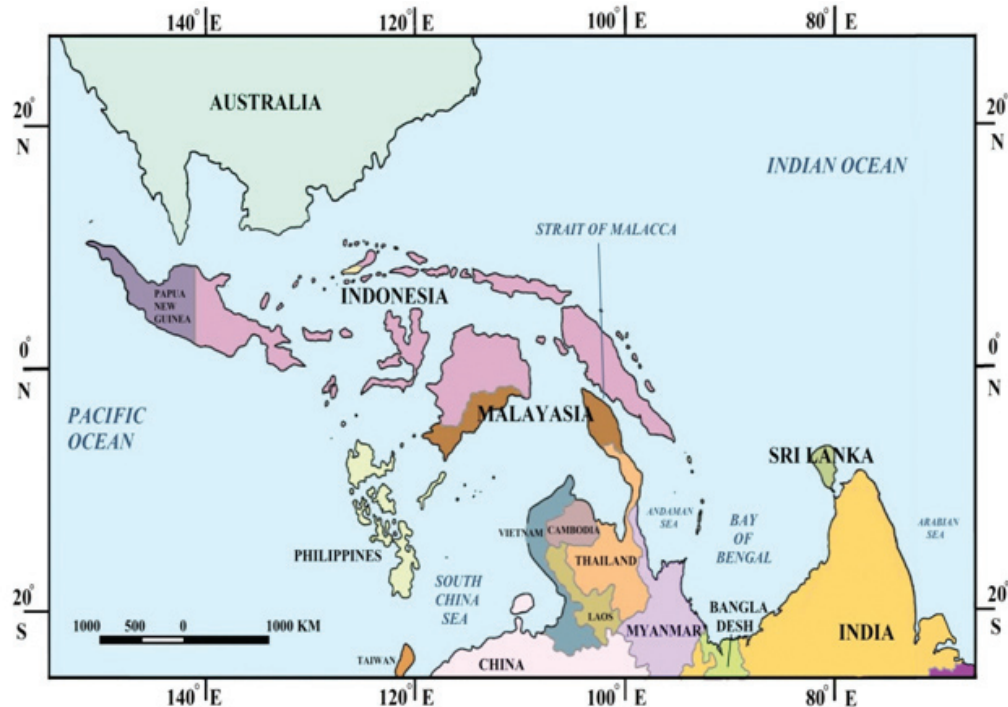
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CHAPTER 3:

Stepping into the Indo-Pacific: Strategic Scenario in the Bay of Bengal

Map 8: The Reverse Map of Bay of Bengal



Source: The map has been re-created by Jaya Thakur from Maps International, <https://www.mapsinternational.com/primary-upside-down-world-wall-map-political-with-flags.html>, Junior Fellow, ORF, Kolkata.

The Indian Navy uses the reverse map of India (see Map 8) to illustrate to its cadres and trainees the vastness of the country's maritime scope. Indeed, the map underscores the importance of the Bay of Bengal (the Bay), as India strives to extend its presence further east, beyond its immediate Southeast Asian neighbours. The Bay, however, is not an isolated strategic theatre, but an inter-regional arena reflecting various security concerns prevalent in the IOR or the wider Indo-Pacific. India seeks to cultivate its role in the IOR and move into its wider waters and the Bay, which is a significant maritime space in itself - for deepening its engagement with the Bay littorals and the easternmost reaches of the Indian Ocean. Building naval strength and enhancing commercial and people-to-people links across the Bay will pave the way for India's comprehensive engagement with countries in Southeast Asia and East Asia.

This chapter aims to understand the strategic factors that can either facilitate or impede India's connectivity with the further reaches of the Bay and the Indo-Pacific. It analyses how the paradigm of the Indo-Pacific is interpreted by India and the concerned countries (Thailand, Malaysia, Singapore and Indonesia). It then discusses India's motivations for seeking a wider role in the Indo-Pacific and the initiatives the country has undertaken so far. Finally, the chapter explores the emergence of the Andaman Sea as a geostrategic gateway into the Indo-Pacific.

Interpreting the ‘Indo-Pacific’ Paradigm

The term ‘Indo-Pacific’ refers to the wide geographical expanse of the Indian and Pacific oceans combined. Essentially a construct, it has become increasingly geopolitically significant for global powers in trying to fulfil national interests and aspirations. However, different nations interpret differently the territorial demarcation and strategic significance of the Indo-Pacific.

For India, the “Indo-Pacific stretches from the shores of Africa to that of America,” as Indian Prime Minister Narendra Modi declared at the Shangri-La Dialogue, 2018.¹ He stated that for India, the Indo-Pacific was not merely a “strategy,” as often perceived, but a “normal” geographical region that hosts “a vast array of global opportunities and challenges ... India does not see the Indo-Pacific Region as a strategy or as a club of limited members. Nor as a grouping that seeks to dominate. And by no means do we consider it as directed against any country.”² Inclusiveness, openness and ASEAN centrality and unity, therefore, lie at the heart of Indo-Pacific for India.³ “India’s multilayered partnership with China and strategic engagement with Russia underlined its commitment to ensuring a stable, open, secure, inclusive and prosperous Indo-Pacific.”⁴ The Indian External Affairs Minister S. Jaishankar reiterated India’s commitment to develop the Indo-Pacific as an area of shared prosperity at the Maldivian Parliament in June 2019. In his subsequent visit to Russia in August, he stated that as India’s economic interests have shifted towards the Pacific, the Act East Policy has now evolved to implement India’s Indo-Pacific outlook.⁵ To understand India’s involvement with the Indo-Pacific, the latter has to be seen as a combination of many subregions. Of these subregions, the emerging strategic theatre of the Bay on India’s eastern shores is particularly important, given India’s Look/Act East Policy and its desire to strengthen ties with Southeast Asia and increase its presence in the east of the Indo-Pacific region.⁶ The Bay is located at the heart of India’s “Indo-Pacific,” and its auxiliary—the Andaman Sea—is India’s “geostrategic gateway” into the wider waters.

India’s Initiatives in the Indo-Pacific

The Indo-Pacific is a major market comprising 38 countries, with 65 percent of the world’s population, 62 percent of the world’s GDP and 46 percent of the world’s merchandise trade.⁷ However, for this market to be optimally utilised, there is a need for greater connectivity and freedom of navigation in these waters. Security initiatives are also necessary, to ensure safety from threats such as maritime piracy or terrorism. Against this backdrop, India has rolled out several initiatives to cultivate a greater presence in the Indo-Pacific.

Nurturing Logistical Linkages

With India signing multiple Free Trade Agreements with the Southeast Asian countries, trade has prospered in the region, which demands better logistical linkages. India has undertaken several projects such as the India-Myanmar Thailand Trilateral Highway, the Kaladan Multimodal Transit Transport Project and the Mekong India Economic Corridor to improve connectivity. It is now also an important stakeholder in the New Development Bank and the Asian Infrastructure Investment Bank.⁸

Extending Maritime Domain Awareness and the Reach of the Indian Navy

India's initiatives have been more extensive at the security front. This may be attributed to the fact that 90 percent of India's external trade by volume and most of its oil imports are carried out through the seas. Therefore, it is important for India to ensure freedom of navigation along the important SLOCs that traverse the Bay of Bengal. Furthermore, China's assertive presence in these waters, the plethora of non-conventional security threats and India's projection of itself as the "net security provider of the region"—have all necessitated India's active endeavours in the security domain. For example, it has sought to improve Maritime Domain Awareness (MDA)^{vii} through the induction of the P8-I Long Range Maritime Patrol in INS Rajali, Arakkonam (November 2015); the deployment of INS Tarkash for the surveillance of Exclusive Economic Zones (EEZs) and outer island support (biannually) to Seychelles and Mauritius (in 2017); and the development of the New Fusion Centre (IFC) in Gurugram (December 2018). Additionally, in January 2019, India commissioned a new airbase, INS Kohassa, in the Andaman and Nicobar Islands to expand its operational presence in the Indian Ocean.⁹ Car Nicobar and Campbell Bay have also been identified as Indian Air Force (IAF) fighter bases.¹⁰ Finally, India and the US have signed the Logistic Exchange Memorandum of Agreement (LEMOA), the Communications, Compatibility and Security Agreement (COMCASA).¹¹

Dialogue and Diplomacy

India has conducted several dialogues with other Indo-Pacific powers, e.g. the 2+2 dialogues with the US, Japan and Australia; and several trilateral dialogues, including India–Japan–US, India–Japan–Australia (JAI), Russia–India–China, and India–Australia–Indonesia. In May 2018, India signed the Shared Vision Statement of the India–Indonesia Maritime Cooperation. The same year, the Indian Navy launched an annually recurring and regionally focused international conference, the Indo-Pacific Regional Dialogue (IPRD). The 2019 IPRD was held in March at the Manekshaw Centre in New Delhi and was attended by policymakers and domain experts from Australia, Bangladesh, Canada, China, Indonesia, Israel, Japan, Seychelles, Singapore, South Korea, Sri Lanka, the UK and the US. The two-day-long deliberations focused on the following themes: (i) practical solutions for achieving cohesion in the region through maritime connectivity; (ii) measures to attain and maintain a free-and-open Indo-Pacific; (iii) a regional approach to the region's transition from a 'Brown' to a 'Blue' economy; (iv) opportunities and challenges arising from the maritime impact of 'Industry 4.0'; and (v) how the twin conceptualisations of 'SAGAR' and 'SAGARMALA' might best be made mutually reinforcing at a regional level.¹²

It is evident that India is increasingly trying to cultivate ties with Southeast Asia and the other major powers to attain collaborative growth. However, a majority of the littorals continue to view Indo-Pacific as being aimed at restraining Beijing's advances, in line with the goals of the Quad (Quadrilateral Security Dialogue, comprising the US, Japan, Australia and India). The Quad is perceived as a response by the extra-regional powers to China's increasing advances in the region's maritime space. The Bay littorals (Thailand, Malaysia, Singapore and Indonesia) are therefore reluctant to support the idea of the Indo-Pacific.

vii Maritime Domain Awareness or MDA is the understanding of anything associated with the maritime domain of a country that could impact its the security, safety, economy or environment.

Perceptions of Indo-Pacific: Thailand, Malaysia, Singapore and Indonesia

Besides India and China, littorals of the Indian Ocean Region are geographically small countries and often have limited resources as well as scope to engage with an increasingly assertive China. Additionally, as far as foreign policy objectives are concerned, most countries of Southeast Asia look towards ASEAN for direction and leadership.

A country like Singapore for instance, which is geographically small and which tends to keep favourable relations with countries in the region, would prefer not to be caught up in competing interpretations of the term. The same holds true for Thailand, Malaysia and Indonesia, who would also not want to be identified as part of one group or the other. Despite the probability of underlying dynamics such as inter-country relations or the imperatives of national interest, all of these countries are more in favour of adopting a balanced approach.

For instance, despite the rise of China and the ensuing geopolitical undercurrents, Thailand is as yet reluctant to assume positions in the unfolding alliances that are shaping the maritime space of the Indo-Pacific. It thus continues to strive to follow its omni-directional¹³ foreign policy that requires it to maintain equidistance and balance in all its bilateral and multilateral ties. This policy does not favour ties with any country over another. Thailand thus continues to rely on US militarily and besides India, has always been on friendly terms with Japan, China and Australia. As an overt war between China and the US is unlikely, the pressing concern is about the safety of Sea Lanes of Communication (SLOCs). In this respect, there is scope for Bangkok to be well disposed towards closer cooperation with the US, Japan and India in promoting a shared idea of a free and accessible regional maritime space.¹⁴

Figure 8: A Graphical Representation of the ASEAN Member Countries



Source: Retno LP Marsudi, "Time to deepen Indo-Pacific cooperation," *The Jakarta Post*, 20 March 2019.

Thailand has had a close and long relationship with the US since the Cold War and the alliance between the two nations continues to be one that is adjusted to keep pace and parity with changing political dynamics. Thailand is believed to be the first among the Southeast Asian nations to be ready to accept the Indo-Pacific paradigm. Bangkok was one of first to support Japan Premier Shinzo Abe's vision of "a dynamic coupling as seas of freedom and prosperity" when he announced it in 2007.¹⁵ Indeed, the country has perceived itself as a land bridge between the Indian and Pacific Oceans. The country has also actively engaged itself with connectivity arrangements in the region.

The Thai government's 20-year economic plan—Thailand 4.0 vision—involves an overhaul of existing infrastructure and the establishment of new connectivity links which dovetail¹⁶ with regional infrastructural efforts like the BIMSTEC. This is undeniable evidence of the government positioning itself eagerly to play a larger role in the region.

Neighbouring Malaysia, because of its location along the Strait of Malacca, is by default a participant in the power dynamics of the region. Owing to China's dominance in Malaysia, there has been a definite tilt towards the former. This is expected to lessen and become a more balanced approach under the present administration. Accordingly, the government has clarified that diplomatic consultations would be favoured over confrontational acts in the waters of the neighbourhood and has also envisioned an integrated East Asian community.¹⁷

Malaysia is poised to play a significant role in India's increasing efforts towards maritime collaboration with the ASEAN countries. Because of its location along the Strait of Malacca, Malaysia is geographically important for both China and other major powers such as the US and Japan. Malaysia is therefore by default a participant in the power dynamics of the region, no matter how it may seek to distance itself from the arena. A rigorous development agenda was pursued in Malaysia during the first tenure (1981–2003) of Mahathir Mohamad as the Prime Minister, who initiated the Look East Policy, strengthened the country's ties with Japan and encouraged the East Asian Economic Caucus (EAEC).¹⁸ Chinese presence has arguably been the most dominant in Malaysia when compared to the four other countries which are part of this study, especially over the last decade. Following this regime, there was a definite tilt towards China; again, this is expected to lessen and shift to a more balanced approach under the present administration.

The government has made it clear that diplomatic consultations would be favoured over confrontational acts in the waters of the neighbourhood.¹⁹ For instance, the prospect of East Coast Rail Link (ECRL) which was initially agreed upon between Malaysia and China under the former regime, was thrown into jeopardy as the present government refused to the terms of the agreement. A renegotiation was begun and recent reports suggest that the rail link has been finalised with a USD 22-billion reduction in fees and as an equal partnership joint venture in which Malaysia would reap the majority of profits.²⁰

The ECRL is vital for China as it will allow Beijing to bypass the Strait of Malacca. At a time when concerns are abound regarding the nation's coming Beijing's 'debt trap', the renegotiation in Malaysia's favour has been a strong stance. While the country is in need of financing and the project was not scrapped altogether, the government's move therefore shows that a cost-benefit rationale will not be overlooked.²¹ It has also been a policy of the administration to be a strong advocate of accounting for the sensitivities of smaller states in the region, especially with regard to great-power rivalry.

The Indo-Pacific strategy of the US government was discussed with Malaysia during a visit to the country in 2018 by US Secretary of State Mike Pompeo.²² While overtly, the Indo-Pacific strategy is not declared as a competitor to China's Belt and Road Initiative (BRI), there is probably more common ground between Japan, the US and Malaysia than there was previously, despite the fact that Malaysia is a part of the BRI. Nevertheless, there remains some hesitation on the part of the country among different sectors to readily identify with the Indo-Pacific—whether as a construct or as a strategy. This may not necessarily indicate a tilt away from the construct but rather validates the belief that the country is keener on engaging on a relatively equal footing with all concerned parties instead of consenting to one or the other.

Singapore has always played an important role in the Southeast Asian region and also beyond this region as maritime nation. Relations with India have been mostly positive and looking ahead, there is a lot of scope for cooperation between the two countries in the maritime sector. As a country with a prominent maritime identity, and having developed a strong and diverse global network, generally, there is always a drive in Singapore to connect more.

As Singapore expands its maritime role and positions itself as “global maritime platform,”²³ the country is looking to engage in a deeper and more capacious manner with its immediate neighbourhood and also the world at large. Having served on the Council of the International Maritime Organization (IMO) for 12 consecutive 2-year terms,²⁴ a crucial aspect of this engagement is the maintenance of and adherence to a rules-based order.

In 2017, the International Maritime Centre (IMC) 2030 Advisory Committee announced its vision for the next phase of growth for Singapore.²⁵ The vision reiterated the preservation and enhancement of the country's maritime identity and outlook and stressed the importance of technology and new industrial opportunities. With an emphasis on innovation and greater connectivity the vision encourages leveraging the country's core strengths to enhance its competitiveness and vibrancy.²⁶



Map 9: Malaysia's East Coast Rail Link

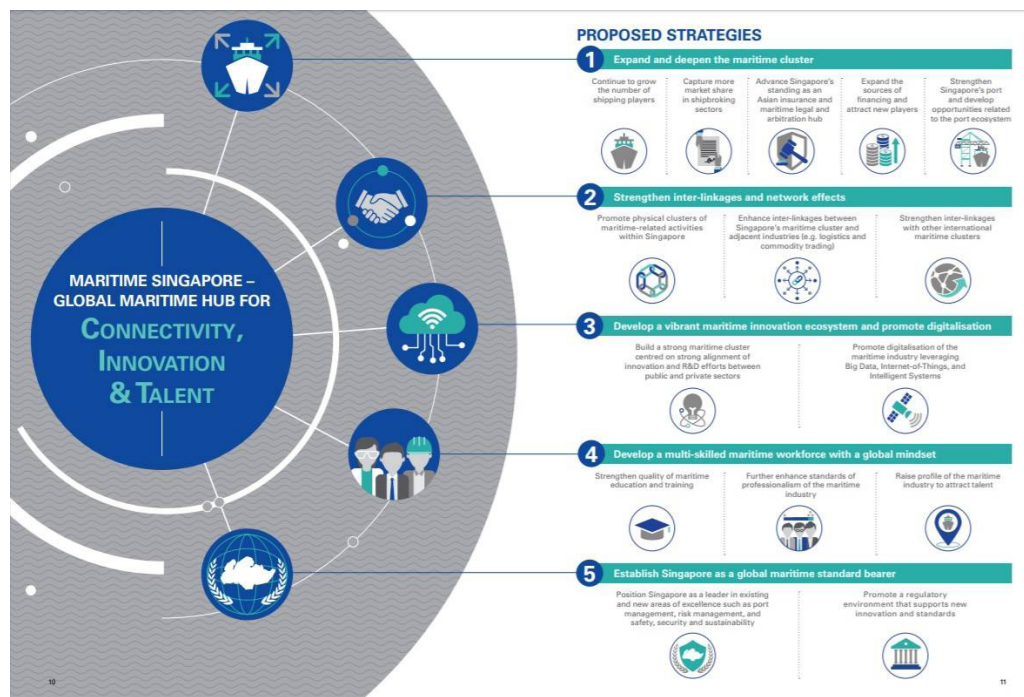
Source: “New East Coast Rail Link deal eases ‘debt trap’ concerns for Malaysia, says Mahathir,” *The Straits Times*, 15 April 2019, <https://www.straitstimes.com/asia/se-asia/new-eclr-deal-eases-debt-trap-concerns-for-malaysia-says-mahathir>.

Singapore also seeks a greater engagement of India in the region.²⁷ For instance, Singapore has been strongly in favour of India joining the Malacca Straits Patrol (MSP).²⁸ The MSP which comprises Indonesia, Malaysia, Thailand and Singapore, was formed in 2005 to enhance security in the narrow Strait of Malacca which is simultaneously a crucial channel for trade and also subject to piracy and robbery.²⁹ Understanding the need to involve user states in the MSP, Singapore has backed India's interest. While there are a host of conditions to be met before India can actually join, it is an important indicator of the country's engagement with India. In terms of defence and security, India and Singapore have an elaborate structure of collaboration with ministerial meetings, bilateral naval exercises and cooperation at the institutional levels through organisations like the IORA, RIMPAC and so on. A trilateral exercise has also been planned by the two countries with Thailand.

Unlike the other littorals in consideration, Indonesia has been articulate about the need for the establishment and maintenance of security and peace in these often troubled waters. Consequently, it has called for an inclusive and transparent Indo-Pacific region³⁰ and envisioned a cooperation framework³¹ for ensuring the stability of the region. Indeed, the country has drafted its own policy titled "Indo-Pacific Outlook" which highlights the centrality of ASEAN and urges the utilisation of combined efforts³² in negotiating the ongoing shifts in the region.

As the country straddles both Indian and Pacific Ocean, its location is vital in terms of commerce as well as maritime security. Jakarta therefore encourages cooperation for reduction in the friction that characterises these waters. This is also part of Jakarta's efforts at assuming a more prominent role in maritime outreach and engagement and in accordance with its maritime vision³³—"Global Maritime Fulcrum" (GMF)—which is focused on "strengthening Indonesia's maritime security, expanding the canvas of regional diplomacy to cover the entire region of the Indo-Pacific, and projecting the Indonesian navy as a respected regional maritime power in East Asia."

Figure 9: Proposed Strategies of the IMC Vision 2030



Source: Annexure 1, International Maritime Centre 2030 Strategic Review, https://www.gov.sg/~sgpcmedia/media_releases/mpa/press_release/p-20170922-2/attachment/imc%202030%20strategic%20report.pdf.

As is observed, most of these smaller littorals of the Bay are sceptical about the activities of the extra-regional major powers in these waters and their impact. Indeed, contemplations have been rife about the aggressive growth of the Asian dragon and the consequent increase in maritime presence of several major powers in the Indo-Pacific to maintain a status quo in the region. Speculations however continue to increase as the significance of maintaining freedom of navigation become clearer in the light of China's undaunted rise.

Nevertheless, the ASEAN (which includes all four countries party of the study) released the ASEAN Outlook on Indo-Pacific Connectivity in June 2019.³⁴ As the first such official document by the organisation, it marks a vital moment in the recent history of the region. What is probably the most important aspect about the document is the focus on ASEAN centrality. For a region that is increasingly subject to the geopolitics among countries not proximate, the emphasis on the need for an ASEAN-led approach and ASEAN-led solutions is of fundamental importance.

China's Assertive Rise

China's rise has played a defining role in the Bay, its extended waters in the Andaman Sea and in the larger Indo-Pacific region. It has established itself as a country with the economic powers and political will to become a dominant country, not only in Asia but also globally. Within Asia, China's rise has led to new bilateral, multilateral and regional dynamics and prompted the need to strengthen cooperative mechanisms to achieve stability and prosperity while maintaining a rules-based order for the preservation and sustenance of the maritime space. Globally, China's increasing influence has prompted policy shifts amongst major powers in the world, notably, the US, Japan and Australia. The US and Japan are attempting to forge an order in the Indo-Pacific to support freedom of navigation and compliance with international maritime law, for all member states.

Figure 10: Freedom of Navigation Operations (FONOPs) in the Indo-Pacific



Source: [https://en.wikipedia.org/wiki/FONOPs_during_the_Obama_Administration#/media/File:USS_Ronald_Reagan_leads_a_formation_of_Carrier_Strike_Group_Five_and_Expeditionary_Strike_Group_Seven_Ships_\(29761493042\).jpg](https://en.wikipedia.org/wiki/FONOPs_during_the_Obama_Administration#/media/File:USS_Ronald_Reagan_leads_a_formation_of_Carrier_Strike_Group_Five_and_Expeditionary_Strike_Group_Seven_Ships_(29761493042).jpg).

In analysing the great power competition in the Indo-Pacific, one must consider Beijing's advances and the motivations behind it. With mounting requirements of energy and commerce, China's increased fuel demands have increased. Consequently, it has been trying to make inroads into the IOR, which is rich in hydrocarbons and under-explored deposits. Ensuring their safe acquisition requires mechanisms to facilitate the securing of resource bases and construction of artificial islands in the region. China is, therefore, trying to enhance its political, economic and military engagement in the region, by forging ties with the littoral countries of the Bay of Bengal through the BRI, or the "New Maritime Silk Route." In recent years, the country has been actively engaged in developing infrastructure in the region, e.g. the Hambantota Port in Sri Lanka and the Sino-Myanmar pipelines.

The IOR is also home to the East-West Shipping Route (which carries the majority of global imports and exports and is one of the busiest routes in the world) and the primary maritime route (which carries the bulk of China's energy imports). In this context, China suffers from a strategic concern, which the Chinese President Hu Jintao referred to as the "Malacca Dilemma." This narrow Strait, home to important SLOCs, is crucial for China to be able to import oil from the Gulf countries and must remain open and free for navigation. China is also trying to create an alternative to the Strait of Malacca by constructing a canal through the Isthmus of Kra, a narrow stretch of land that connects the southern tip of Myanmar with Thailand in the Andaman Sea. The Thai government, however, opposes this construction and wants to shelve the proposal.³⁵

The littorals are apprehensive of China's growing assertiveness in the Bay, as well as the wider Indo-Pacific. Part of this is due to China's apparent indifference towards maritime law and its rapid rise in influence in the region in the form of land acquisitions, disputed sovereignty claims etc. Beijing has attempted to assuage some of these concerns by stating that its efforts are geared towards the prosperity of all in the region, but this has had little impact. Several non-littoral major powers, too, have expressed concern since their continued economic well-being depends on the freedom of the SLOCs, and their strategic security rests upon maintaining a balance of power in the region.

These concerns have resulted in the formation of groupings and forums that highlight the need for freedom of navigation and the preservation of the maritime space as a common resource for all countries. There is now greater demand for India to assume a more visible and prominent position in the region. In the coming years, strategic interactions between the US, China and India will largely determine the geopolitical environment in the region.³⁶

India's Role in Maintaining Freedom of Navigation in the IOR

The major powers that operate in the IOR—and stand to gain from maintaining stability in the region—look upon India as a counterweight to China. The US, in particular, along with Australia and Japan, encourage India's prominent role in the region, given its geographic centrality in the Indian Ocean. The term Indo-Pacific gained popularity after the Japanese Prime Minister Shinzo Abe used it to underline how the confluence of the two seas is coming into being and highlighted the importance of India-Japan cooperation for both nations.³⁷ In 2013, Australia commended the Indo-Pacific geostrategic arc and commented on India's role as an emerging power.³⁸

In recent years, several of these nations have drafted foreign policies that aim to maintain the freedom of the waters of the Indo-Pacific region, which have subsequently converged in the Bay. Consequently, India's partnerships have grown with these

countries, yielding collaborative strategic initiatives such as the Indo-Pacific Security Diamond or the Quadrilateral Initiative (Quad 2.0). The first iteration of the Quad had dissolved in 2008, since some member countries were apprehensive about China's displeasure (as Quad had been portrayed as an alternate to China's Belt and Road Initiative) and changes in political leadership. However, as bilateral relations continued to strengthen between the member states,³⁹ the idea of a new Quad gained ground once again, leading to a call for officially getting "the band back together" to "anchor" the Indo-Pacific. Subsequently, the democracies held an exploratory meeting in Manila on 12 November 2017. Quad 2.0 focuses on maintaining the status quo in the Indo-Pacific and enhancing its command of the sea, while encouraging cooperation between the members, especially in terms of anti-submarine warfare capabilities. It aims to help India and Australia re-arrange their existing command structures and fleet arrangements, and enable the BECA (Basic Exchange and Co-operation Agreement), allowing the US to share sensitive data with India.⁴⁰ However, India remains sceptical of the Quad's effectiveness, concerned about China's reaction and the sincerity of the other Quad members, given Australia's withdrawal from the first Quadrilateral Initiative. Moreover, India already has trilateral strategic partnerships with the US and Japan.⁴¹ It may therefore be stated that India's membership in the Quad 2.0 is largely tactical because its members are yet to have a clear blueprint and economic commitment for effective engagement.⁴² Against this backdrop, will Quad 2.0 help India establish a strategic footprint in the Indo-Pacific? Or will it continue to only be a symbol of solidarity amongst the democratic powers?

In 2017, the US and India issued a joint statement in which both countries agreed to ensure peace and prosperity in the region. In 2018, the US renamed the "US Pacific Command" as the "US Indo-Pacific Command" and launched the Asia Reassurance Initiative Act.⁴³ The change of the Command's name was symbolic of India's growing strategic importance for the US and the latter's willingness to tap into India's defence market. Additionally, the US is India's second-largest weapons supplier and has been closing a total of USD 15 billion worth of deals over the last decade.⁴⁴ Talks of an Indo-Pacific Corridor are also underway, which will extend from the east coast of Africa to the western Pacific.⁴⁵ More specifically within the Bay of Bengal, India has been a member of BIMSTEC, collaborating on multi-dimensional facets with other Bay littorals.

BIMSTEC: Connecting the Bay

In 1997, four littoral countries of the Bay of Bengal region—Bangladesh, India, Sri Lanka and Thailand—formed a regional Economic Cooperation through the Bangkok Declaration "to promote sub-regional cooperation in the areas of trade, investment, technological exchange" and contribute to peace and prosperity in the region. Soon Myanmar joined the organisation, followed by Nepal and Bhutan in 2004. Consequently, with its seven member countries, the organisation adopted the title of 'Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation' (BIMSTEC). To serve as a bridge between South and Southeast Asia and reinforce relations among these countries BIMSTEC continually explores new areas of cooperation. Keeping in mind that the region is home to around 1.5 billion people which constitute around 22 percent of the global population these arenas of collaboration range across several sectors which require collective engagement for the betterment of the people. At present BIMSTEC members collaborate on 14 such sectors; 'Trade & Investment', 'Transport & Communication', 'Energy', 'Tourism', 'Technology', 'Fisheries', 'Agriculture', 'Public Health', 'Poverty Alleviation', 'Counter-Terrorism & Transnational Crime', 'Environment & Disaster Management', 'People-to-People Contact', 'Cultural Cooperation' and 'Climate Change'. Each member country is tasked to lead one or more sectors depending on their expertise.

However, much of BIMSTEC's promise to "harness shared and accelerated growth through mutual cooperation in different areas of common interests by mitigating the onslaught of globalisation and by utilising regional resources and geographical advantages" remains confined to paper.⁴⁶ The Bay of Bengal's history of isolation after it was split into South and Southeast Asia and its littorals joined different alliance systems cast its shadow on BIMSTEC's operability. Moreover, India's continental approach coupled with the Non-Aligned stance completely alienated India from the other littoral states of the Bay of Bengal. Its primary challenge continues to lie in expanding its fiscal and staffing capacities which is necessary to advance cooperation in the 14 identified sectors of cooperation. The organisation is also hindered in its efforts by the limited financial and human resources available.⁴⁷

Recently, with the resurgence of strategic and economic interests in the Bay as part of a larger maritime strategic space, the Indo-Pacific, BIMSTEC as a promising sub-regional grouping is gaining traction. The Bay being the key transit route between the Indian and the Pacific Oceans is located at the intersection of Indian and Chinese strategic interests impacting deeply all other BIMSTEC member-countries.⁴⁸ Moreover, the Bay is plagued by a variety of non-traditional security threats such as illegal migration and armed piracy.⁴⁹ Freedom of navigation in these waters, controlling transnational threats, harnessing and sharing the Bay's natural wealth, promoting infrastructural and people-to-people connectivity thus become common issues for BIMSTEC member countries. BIMSTEC is therefore once again in the limelight as the only sub-regional organisation operating in these waters. For the Bay of Bengal littoral countries which are now trying to rejuvenate their age old links BIMSTEC serves as a platform of integration to address common issues. The sub-regional organisation is particularly cardinal to India, in particular as with its Look/Act East Policy the country has a major stake in bringing together South and Southeast Asian countries in such common endeavours.

Moving beyond Malacca: Strengthening Ties with ASEAN

One of India's first initiatives to increase its engagement in Southeast Asia was the 'Look East Policy' of the 1990s. Eventually, as India strengthened its relations with ASEAN, the second Phase of the Look/Act East Policy was developed in 2002, with emphasis on strengthening ties with all Asia-Pacific countries.⁵⁰ This was reflective of India's interest to expand beyond Malacca.

In the 1990s, as trade rapidly increased between India and Southeast Asian countries in the absence of any major disputes, cooperation extended to the defence front.

In 1993, Malaysia signed a memorandum of understanding on defence cooperation with India. The two countries have also begun warship visits to promote naval cooperation. In the maritime domain, India and Malaysia agreed to promote freedom of navigation in the Indo-Pacific and deliberated on strengthening security cooperation. Malaysia has since acknowledged and endorsed India's role in endorsing maritime security in the region. During the 2017 talks, the two heads of state upheld the 1982 United Nations Convention on the Law of the Sea and underscored the need for settling maritime disputes through peaceful means and avoid in unilateral measures. Cooperation and intelligence-sharing on maritime security are of vital importance to both India and Malaysia, and there is much scope for bilateral engagement in this area. As an ASEAN member, Malaysia can enhance India's maritime collaboration with other member states as well.

In 2003, Singapore signed a bilateral defence cooperation agreement with India.⁵¹ While there have been some concerns about Singapore's possible tilt towards China in recent years, there are currently no irritants between India and Singapore. Their bilateral relations are characterised by goodwill,⁵² and they share strong defence and security cooperation. The two nations have been participating in military exercises for 25 years, the longest that India has with any other country. Ties in this sector range across training, fleet reviews, coast-guard interactions etc., and exercises such as Ind-Indo CORPAT Exercises (Coordinated Patrols) are set to increase in scale and frequency. There are regular exchanges on cyber security and counterterrorism as well. Singapore wants India to play a bigger role in the eastern Indian Ocean security architecture. India has always been perceived as being more aligned with the "ASEAN way," and the new political dispensation has significantly boosted the country's image and visibility.

Thailand and India, too, want to expand maritime security cooperation, joint defence production, and counterterrorism strategies. The navies of the two countries have participated in joint exercises, regular exchanges, training programmes, staff talks and information-exchange relating to hydrography and white-shipping. The rapidly altering dynamics in the Andaman Sea—such as increasing maritime traffic and human trafficking—necessitates a more proactive role of the Royal Thai Navy in the region, a need that India acknowledges.⁵³

In the context of Indonesia, the Bay has emerged as an area of interface between India's Act East Policy, the Indonesian Global Maritime Fulcrum Policy and the Regional Comprehensive Economic Partnership. Both countries are working towards enhancing maritime interoperability and are undertaking coordinated patrols, joint searches and rescue operations. India and Indonesia share the same vision for safety, security and compliance with international law.⁵⁴ The GMF doctrine is comparable to India's maritime strategy, and the SAGAR and Sagarmala initiatives. In 2018, the two countries adopted the "Shared Vision on Maritime Cooperation in the Indo-Pacific," which highlights their shared perspectives and aims in the maritime space.

As a result of this increased connectivity between India and Southeast Asia, India became ASEAN's sectoral partner in 1992, its dialogue partner in 1996 and a summit-level partner in 2002.⁵⁵ In 2017, India and ASEAN celebrated its 25 years of dialogue partnership and five years of strategic partnership. At the subsequent "Commemorative Summit" held in January 2018, the Delhi Declaration was issued under the theme of "Shared Values and Common Destiny," wherein both parties reiterated their commitment to ensuring safe and secure seas.⁵⁶

In addition to the geopolitical challenges, these waters are affected by climate change, maritime pollution and rising sea levels. Such issues require concerted and competent action, and the littorals of the region have addressed them in various bilateral and multilateral forums. In this context, institutional mechanisms of the ASEAN and BIMSTEC will prove critical in the coming years.

The Andaman Sea: India's 'Geostrategic Gateway'

The Andaman Sea is separated from the Bay of Bengal by the Andaman and Nicobar Islands (ANI), which form its western shores. Its littorals on the east are Myanmar, Thailand, Malaysia and Indonesia. While Singapore is not technically its littoral, it too takes an active interest in the developments in the Andaman Sea. After all, as a part of the larger Bay, the Andaman Sea is proximate to important SLOCs, especially the East-West Shipping Route that passes through just south of the Nicobar Islands and

into the Strait of Malacca. It plays a vital role in global commerce, making it important to maintain freedom of navigation in these waters. The Andaman Sea is also rich in hydrocarbons, and the ANI constitutes 30 percent of the country's EEZs.⁵⁷

Moreover, in light of China's ingress into the IOR and India–China maritime competition, the sea holds strategic significance.⁵⁸ Much of this is due to the ANI, often referred to as one of the most “strategically located island chains of the world.” These islands make up the first land connect from the Strait of Malacca and are central to the energy requirements of East Asian countries. The Preparis Channel is located to the north of the ANI, and the Six Degree Channel is located to its south. The ANI also straddles Duncan's Passage and the Ten Degree Channel, all of which are important shipping routes.

For long considered a tranquil maritime space, the Andaman Sea is now set to play a more dynamic role as the Indo-Pacific gains strategic centrality.⁵⁹ Situated at the juncture of the Bay and the Strait of Malacca, the Andaman Sea is a “geostrategic gateway,” through which India can extend its reach further into the eastern Indo-Pacific. However, as a gateway, other powers could simultaneously make inroads into India's immediate waters through it. This creates a unique strategic scenario, whereby India's attempts to gain prominence in the Indo-Pacific through collaborative growth must be coupled with efforts to ensure security in the region. Therefore, India has begun to enhance the capacity of the Indian Andaman and Nicobar Tri-Command (ANC) stationed in the ANI.⁶⁰

Measures to Enhance Security

China's “Malacca Dilemma,” the subsequent proposal of the Kra Canal to connect the Andaman Sea with the Gulf of Thailand, and the construction of the Sino-Myanmar pipelines have given India newer security concerns in these waters. For instance, the sale of Chinese submarines to the Bay littorals marks a boost in Beijing's relationship with the littoral navies. In 2016, China sold two submarines to Bangladesh. A year later, Beijing concluded a deal with Bangkok on the construction of a submarine for the Thai Navy, worth more than USD 400 million. China also has been a long standing arms supplier to Myanmar, and two Chinese frigates are part of the Myanmar navy. China currently conducts bilateral and multilateral naval exercises in the Andaman Sea and Malacca Straits, and there have been reports of Chinese submarines being detected near the ANI.⁶¹ Amongst the non-traditional security concerns, illegal fishing, armed piracy and maritime terrorism dominate the Andaman Sea.⁶²

Considering these apprehensions, the Government of India has sought to enhance the capacity of the ANC. Established in 2001, the ANC—India's only tri-command—is responsible for monitoring vessels passing through the Ten Degree and Six Degree Channels and ensure freedom of navigation through the Malacca, Sunda and Lombok straits. In 2017, the ANC conducted the Defence of Andaman and Nicobar Exercise (DANX), to test and certify its operational procedures. In 2018, the Indian Air Force (IAF) declared that combat aircraft and other assets would be permanently based at the ANC to enhance combat efficiency. In the same year, the ANC decided to station fighter jets and combat platforms at the Command. Car Nicobar and Campbell Bay have also been identified as IAF fighter bases.⁶³

The ANI currently has a naval base at Campbell Bay, with another airbase commissioned at INS Kohassa—the Naval Air Station at Shibpur in the North Andaman Island.⁶⁴ This is expected to reinforce India's influence in the Malacca, Sunda, Lombok and Ombai straits. The linear formation of the islands also provides an opportunity for the

establishment of MDA and maintenance of India's forward presence in eastern IOR, to address security challenges. MDA has been exercised by the ANC with the help of satellite imagery and regular sea patrols by ships, helicopters, Dornier aircraft and UAVs, which perform reconnaissance and gather information.⁶⁵ In addition to enforcing conventional security, the ANC conducts low-intensity maritime operations to enforce rule of law at sea. The coast guard stationed at the island polices the waters of the EEZ and conducts anti-poaching exercises and coastal surveillance.⁶⁶

The ANC's operations are yet to be fully expanded to sea-control or sea-denial priorities. Moreover, it must be allocated sufficient resources to develop as a forward base. The MDA potential of the ANC is presently underutilised. If developed further, it will allow India to observe submarine activities in the Malacca Straits.⁶⁷

Endeavours to Expand Strategic Outreach

In recent years, India has used the Sea to extend its outreach into the broader Indo-Pacific. After years of isolation, India is now eager to bring in domestic and foreign investors. This is reflective of the ANI's changing governance pattern, from a protectionist stance (due to the ecological and anthropological rarities of the islands) to one of development. This is especially seen in the tourism sector. PM Modi has also sought international assistance to help develop the ANI. The document titled, "Shared Vision of Maritime Cooperation in the Indo-Pacific," signed between India and Indonesia in 2018, mentions the Andaman Sea in the context of improving tourism and identifies the ANI and the Sabang Port in Sumatra for development.⁶⁸ INS Sumitra has already visited Sabang, and establishing direct connectivity between Sabang and the ANI is on the agenda. Last year, Indonesia gave India access to the Sabang Port, to improve the outreach of the Navy. An Indo-Japanese acquisition and cross-servicing agreement is also in the works, and it is expected to include provisions for the ANC to host Japanese warships.⁶⁹

The ANC hosts numerous naval exercises with the littorals and major powers, which operate in these waters, e.g. the flagship MILAN, a biennial multilateral naval exercise. As the largest joint naval exercise conducted in the Andaman Sea, MILAN aims to deepen maritime ties with South and Southeast Asian countries. All the countries discussed in this chapter are active participants in the MILAN exercise, the latest edition of which was held in March 2018 on the theme of "Friendship across the Seas."⁷⁰ Hosted by the ANC and in close proximity to the Malacca Straits, MILAN is a testament to India's engagement in the wider waters. The exercise improves interoperability and strengthens bilateral and multilateral ties between India and the participant countries. Moreover, the experience gained from engaging with these countries in areas such as HADR is crucial in a disaster-prone region such as the Bay of Bengal.⁷¹ Thus, MILAN is not only a symbolic engagement but also a defence utility.

India's Eastern Naval Command, located at Visakhapatnam, is engaged in conducting bilateral exercises with major powers of the Indo-Pacific, such as the Japan-India Maritime Exercise (JIMEX) or the Malabar Exercises between India, the US and Japan. However, the ANC's focus is on utilising its proximity to engage with the littorals of the Andaman Sea, the ASEAN countries so central to India's vision of the Indo-Pacific. Accordingly, to increase the country's interoperability, the ANC conducts the Singapore-India Maritime Bilateral Exercise (SIMBEX); CORPAT Exercises with Myanmar, Thailand and Indonesia; and other bilateral and multilateral exercises with Vietnam, Philippines and Malaysia.⁷² A new trilateral exercise is also set to be launched between India, Singapore and Thailand this year, as was decided during the Third Defence Minister's Dialogue following the 2018 SIMBEX.⁷³ The lack of any major maritime boundary

disputes between India and the littorals of the Andaman Sea has further facilitated collaboration.

India and Indonesia signed an agreement in 1974, determining the continental shelf boundary between Nicobar and Sumatra, and another one in 1977, for the Indian Ocean and the Andaman Sea. India and Thailand signed a sea-bed boundary agreement in 1978. In the same year India, Thailand and Indonesia concluded a tripartite agreement, establishing a tri-junction point that delimits the maritime boundaries of the three countries in the Andaman Sea.⁷⁴ Thailand also proclaimed the outer limit of its EEZs in the Andaman Sea in 1981.⁷⁵ However, the maritime boundaries of EEZs are yet to be determined between India and Indonesia.⁷⁶

In the sphere of institutional engagement, India is an active participant of the BIMSTEC, the Mekong Ganga Economic Corridor, the IORA, the Indian Ocean Naval Symposium, the East Asia Summit, ASEAN Defence Ministers Meeting Plus, ASEAN Regional Forum and the Forum for India–Pacific Islands Cooperation. The ambit of jurisdiction for most of these overlaps in the Andaman Sea. Thus, New Delhi's attention is presently focused on the Andaman Sea, which was symbolised by PM Modi's first visit to the ANI in 2018. This once-forgotten sea has now become one of the emerging subregions that will India's fate in the Indo-Pacific.

In recent years, the Bay littorals have made substantial collaborative efforts in several sectors. However, the possibility of confrontation still exists in certain areas. Thus, India must manoeuvre itself carefully to establish strong connectivity with Southeast Asia while also avoiding conflict.

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CONCLUSION

Towards a Connected Future

The 'ASEAN Outlook on the Indo-Pacific' released following the conclusion of the ASEAN Senior Officials Meeting in June 2019¹ calls for upholding the centrality of this regional organisation in the security architecture of Southeast Asia and in the Indo-Pacific. After a month of deliberations and with Indonesia at the helm, the 'Outlook' declares its aim as "promoting cooperation in the Indo-Pacific region, with ASEAN-led mechanisms, such as the East Asia Summit (EAS), as platforms for dialogue and implementation of the Indo-Pacific cooperation, while preserving their formats."² The document also calls for a rules-based order anchored on international law, transparency, inclusivity, openness and a commitment to promote economic engagements in the region. Indeed, it is noteworthy that the Outlook complements India's vision for the Indo-Pacific (as was outlined by PM Modi at the Shangri La Dialogue 2018)³ in its mention of the need to maintain stability in the Bay without overtly articulating the apparent 'threat perception' concerning China. As the Outlook document also envisions the expansion of cooperation in the various regional and sub-regional forums such as IORA and the BIMSTEC, it increases the chances for BIMTSEC to be elevated into a 'BIMSTEC Plus' with the inclusion of the littorals of the extended Bay as members. India, with its status as a partner of ASEAN and the lead in four sectors of cooperation in the BIMSTEC, can serve as a bridge between the two forums.

As the Indo-Pacific builds up on the possibilities of collaborations in the context of conflict situations, India as central regional power finds itself as a stakeholder in many of the discourses surrounding both littorals and non-littorals. While some of these discussions portray India as a counter-weight to a rising China, others view it as a partner to maintain stability and prosperity in the region. India is more inclined to be a partner in ensuring regional stability, and is nurturing the potential for collaborative growth in the region; its prerequisite is connectivity. As determined by India's policy thrusts towards the east of the region, the Bay of Bengal has been recently claiming greater strategic prominence. As India's primary area of interest this semi-enclosed maritime space has proven conducive for India to strengthen ties with Southeast Asia that are central to its vision of the Indo-Pacific. Moreover, as the Bay is an inter-regional arena, developments in its waters are likely to have wider ramifications in the Indian Ocean Region and the Indo-Pacific at large. This is especially true in terms of India's linkages with the concerned littorals of the 'extended Bay' that trail off into the Indian Ocean, as has been analysed in the preceding sections of this monograph.

Option for 'BIMSTEC Plus'

Additionally, India shares a long history of HADR engagement with its fellow Bay of Bengal littorals, preceding its formal ties with ASEAN. In recent years, India has been collaborating more with Thailand and Indonesia, in the light of mitigating common threats such as frequent cyclones and tsunamis. Nonetheless, India's interaction with ASEAN has been more intense than its bilateral collaboration apart from few cases. These ties with ASEAN are only likely to increase as both parties push the vision of "Shared Values, Common Destiny" which they declared during the ASEAN-India Commemorative Summit in 2018.

As the Bay of Bengal region faces more intense climatic events as a result of global warming, the sub-regional organisation BIMSTEC has also been putting greater emphasis on the need for more active cooperation in the sector on 'Environment and Disaster Management.' With India taking the lead in this sector, BIMSTEC is committed to integrate disaster risk reduction in the region. BIMSTEC member states have begun conducting joint disaster management exercises, the first of which was held in 2017.⁴ However, because membership of BIMSTEC does not geographically extend beyond Thailand, holistic regional collaboration in the Bay remains incomplete without the participation of Malaysia, Singapore and Indonesia as littorals of the 'extended Bay' (or the Andaman Sea). As an ASEAN Dialogue partner and member of the East Asia Summit, India collaborates with these countries in HADR operations. India is thus in a position to act as a bridge between the immediate Bay littorals and those of the 'extended Bay'; in effect, this integrates the Bay of Bengal in the sphere of HADR in addressing shared vulnerabilities. In this regard the ambit of BIMSTEC may be expanded to a 'BIMSTEC Plus' to accommodate the countries of the 'extended Bay'.⁵

In the long run, regional collaboration in HADR can be integrated under the umbrella of BIMSTEC (or BIMSTEC Plus if it is indeed created.) Such a collective endeavour will require the participation and expertise of all the Bay littorals. During the 17th BIMSTEC Senior Officials Meeting in Kathmandu in 2017, the Secretary General M Shahidul Islam reiterated the need for BIMSTEC countries to learn from each other.⁶ It is noteworthy that Bangladesh's cyclone preparedness programme and Thailand's last mile connectivity of tsunami early warning system have both been recognised as examples of global best practise. Issue-based standard operating procedures may also be formulated to provide effective disaster response. As most countries in this region are sensitive to any perceived or real threat to their sovereignty—and therefore reluctant to accept help from isolated state actors without preceding bilateral agreements—routing collaborative HADR through a multilateral institution may prove to be more acceptable. Similarly cooperation in other sectors within the BIMSTEC such as those nurturing maritime connectivity, trade and security initiatives can also be expanded to the littorals of the extended Bay so as to have a more holistic outlook.

It will be useful to recall that the Quad 2.0 (or the Quadrilateral Security Dialogue comprising the US, Japan, Australia and India)—which today is popularly understood as a security construct—owes its origin to a successful coordination for relief and rehabilitation in the aftermath of the tsunami of 2004.⁷ However, as speculations continue as to whether the new Quad's *raison d'être* is solely to contain China, BIMSTEC member states must learn the lessons of their cooperation in humanitarian affairs and expand the group's agenda.⁸ If such attempts were to culminate into more substantive efforts, Quad 2.0 would indeed gain vigour as a platform for India as well as the other Quad members to pursue multi-dimensional collaborative growth in the Indo-Pacific.

Having dealt with India's maritime connectivity with Thailand, Malaysia, Singapore and Indonesia against the backdrop of dynamic geostrategic milieu in the Bay of Bengal region, this monograph offers specific recommendations for strengthening India's connectivity across the Bay. This study recommends certain policy directives for India to strengthen connectivity with the concerned littorals in the areas of logistics, humanitarian assistance, and regional stability.

KEY RECOMMENDATIONS

The Indian Parliament should pass the Major Ports Authority Bill as it will be an important tool for granting more autonomy to the country's ports for improving their infrastructure and operations.

The challenges facing Sagarmala in terms of coordination, securing financing and meeting deadlines for completion, need to be hurdled to ensure the effective and timely implementation of the programme.

India must develop the Maritime Domain Awareness potential of the ANC that will allow it to observe submarine activities in the Strait of Malacca.

Regulatory mechanisms need to be made more flexible and tax and duty structures relaxed to encourage increase in trade.

A Maritime Transport Agreement (MTA) should be considered between India and countries in Southeast Asia; these would underwrite bilateral maritime ties.

Collaboration at Track 2 levels among think tanks to facilitate dialogues should be encouraged.

To save time in an emergency, the Andaman and Nicobar Islands must be developed as a point of first response in providing HADR to Southeast Asian countries.

India can initiate the formation of a BIMSTEC HADR brigade that may be stationed in the ANI for easy deployment to nearby countries in crisis situations.

There is need for collaboration in early warning between the Directorate of Disaster Management in ANI and the AHA Centre in Jakarta for mutual benefit.

India must utilise the synergy between its vision for the Indo-Pacific and the 'ASEAN Outlook on the Indo-Pacific' to explore more avenues of collaboration.

India as the lead in sectors of BIMSTEC and as an ASEAN partners must collaborate with Myanmar and Thailand—which have the advantage of being members of both organisations—to increase synergy between the two institutions.

India must determine the overlapping maritime boundary of its EEZ with Indonesia to ensure the steady progress of bilateral endeavours.

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Annexure

ANNEX 1

Export Cargo from Vishakhapatnam Port to Thailand, Indonesia, Malaysia and Singapore (2016–17)

CARGO	COUNTRY OF DESTINATION	QUANTITY IN TONNES
Container	Malaysia	1,144,657
	Singapore	579,641
	Thailand	36,253
	Indonesia	1,658
POL (Petroleum, Oil and Lubricants) products	Singapore	189,406
	Malaysia	24,915
Alumina	Malaysia	177,014
Pig Iron	Thailand	47,000
Illuminate Sand	Malaysia	26,250
Steel	Malaysia	60,478
	Thailand	31,159
Bio Diesel	Malaysia	6,770

Source: Constructed by researchers based on data from Vishakhapatnam Port Trust.

Import Cargo to Vishakhapatnam Port from Thailand, Indonesia, Malaysia and Singapore (2016–17)

CARGO	COUNTRY OF ORIGIN	QUANTITY IN TONNES
Crude Oil	Malaysia	932,667
Container	Singapore	450,521
	Malaysia	369,036
	Thailand	96,826
	Indonesia	24,292
	Singapore	104,896
Petroleum Coke	Indonesia	69,005
POL (Petroleum, Oil and Lubricants) products	Singapore	67,080
	Indonesia	23,300
	Malaysia	23,005
Caustic Soda	Indonesia	48,769
Limestone	Malaysia	45,800
Finished Fertilisers:		
	(a)Ammonium Nitrate	
	Malaysia	12,338
	Indonesia	7,906

CARGO	COUNTRY OF ORIGIN	QUANTITY IN TONNES
(b)NPS	Indonesia	30,009
Methanol	Malaysia	13,820
Toluene	Singapore	11,244
	Thailand	22,428
Liquid Ammonia	Indonesia	9,000
Hexane	Thailand	8,078
IP Alcohol	Singapore	5,928
Edible Oil	Indonesia	4,800
Biodiesel (M. Chloride)	Malaysia	4,198
Iron and Steel	Indonesia	1,037
General Cargo	Singapore	101

Source: Constructed by researchers based on data from Vishakhapatnam Port Trust.

Export Cargo from Haldia Dock Complex Port to Thailand, Indonesia, Malaysia and Singapore (2016–17)

CARGO	COUNTRY OF DESTINATION	QUANTITY IN TONNES
Container	Malaysia	289,494
	Singapore	295,170
POL (Petroleum, Oil and Lubricants) products	Singapore	288,587
	Malaysia	81,463
	Indonesia	15,262
Steel	Thailand	125,282
	Malaysia	61,800
	Indonesia	28,107
Iron Ore	Singapore	104,156
Benzene	Singapore	71,362
	Indonesia	36,645
Butadiene	Malaysia	38,505
	Indonesia	14,458
	Singapore	11,709
	Thailand	1,479
Pig Iron	Thailand	18,883
Bitumen	Malaysia	8,527
	Singapore	3,514

Source: Constructed by researchers based on data from Haldia Dock Complex.

Import Cargo to Haldia Dock Complex Port from Thailand, Indonesia, Malaysia and Singapore (2016–17)

CARGO	COUNTRY OF ORIGIN	QUANTITY IN TONNES
Palm Oil	Indonesia	982,012
	Malaysia	410,861
Non-Coking Coal	Indonesia	914,746
M.C. Coal Transshipment	Indonesia	591,910
Crude	Indonesia	374,981
Container	Malaysia	343,435
	Singapore	212,447
Paraxylene	Singapore	275,526
	Thailand	9,521
	Malaysia	9,501
Mineral Ore	Malaysia	70,500
Dolomite	Thailand	48,500
POL (Petroleum, Oil and Lubricants) products	Singapore	46,495
	Malaysia	28,820
	Indonesia	16,972
	Thailand	19,321
Bitumen	Malaysia	46,556
	Singapore	20,284
	Indonesia	2,262
CBFS	Singapore	39,724
	Malaysia	13,551
Acid	Singapore	33,147
	Malaysia	26,851
R.P. Coke	Malaysia	33,001
	Indonesia	10,981
Coking Coal	Singapore	30,750
Steel	Thailand	22,369
M. Slag	Singapore	22,000
Limestone	Thailand	18,229
Cement	Thailand	18,000
Benzene	Indonesia	2,696
Butane	Singapore	2,046
	Indonesia	2,005
Other Liquid	Singapore	2,584
Machinery	Indonesia	209

Source: Constructed by researchers based on data from Haldia Dock Complex.

Import Cargo to Chennai Port from Thailand, Indonesia, Malaysia and Singapore (2016–17)

CARGO	COUNTRY OF ORIGIN	QUANTITY IN TONNES
Edible Oil	Indonesia	5,10,000
	Malaysia	1,54,000
Crude products	Malaysia	3,46,000
POL (Petroleum, Oil and Lubricants) products	Singapore	70,000
	Malaysia	63,000
	Indonesia	38,000
Iron Steel	Indonesia	21,000
Other Liquid	Singapore	12,000
	Indonesia	7000
	Singapore	6000
	Malaysia	2000
Machinery	Singapore	1,000

Source: Constructed by researchers based on data from Chennai Port Trust.

Export Cargo from Chennai Port to Thailand, Indonesia, Malaysia and Singapore (2016–17)

CARGO	COUNTRY OF DESTINATION	QUANTITY IN TONNES
POL (Petroleum, Oil and Lubricants) products	Singapore	404,000
	Malaysia	103,000
Iron Steel	Malaysia	113,000
	Indonesia	16,000
Vehicles	Thailand	36,000
	Indonesia	5,000
	Malaysia	4,000
Machinery	Indonesia	1,000

Source: Constructed by researchers based on data from Chennai Port Trust.

ANNEX 2

India's Recent Relief Assistance to the Bay Littorals*

Incident	Year of Occurrence	Effects of the Incident	HADR Collaborative Initiatives
Indian Ocean Tsunami (Maldives, Sri Lanka, and Indonesia)	2004	Immense loss of life and destruction of property. Many were left homeless.	India despite being affected sent three external relief operations to Sri Lanka, Indonesia and the Maldives, which included 32 naval ships, 20 helicopters and 7 air-crafts.
Cyclone Sidr, Bangladesh	2007	Low lying areas were flooded causing immense loss of life Destruction to infrastructure. Communication, electric and water supply collapsed.	The Indian Navy was at the forefront of relief operations during Cyclone Sidr. Relief supplies including milk powder, blankets, water filters, food and medicine were handed over by India to the Bangladesh government.
Cyclone Nargis-Myanmar	2008	Immense loss of life and destruction of property. Mass displacement. Rampant humanitarian abuse.	The Indian Navy sent two naval ships, INS Rana and INS Kirpan to provide relief to the victims in under Operation Sahayata.
Myanmar Floods after Cyclone Komen	2015	Loss of life. Damaged infrastructure Flash floods destroyed all physical modes of connectivity.	India extended help after an official request from Myanmar. Under the Indian Air Force (IAF) aircrafts C-17 and C-130 airlifted 104 tons of relief material from Delhi to Kalay and Mandalay in Myanmar.

Incident	Year of Occurrence	Effects of the Incident	HADR Collaborative Initiatives
Cyclone Mora-Bangladesh (Cox Bazaar, Chittagong)	2017	Immense loss of life 70 percent property damaged.	Indian Navy sent two ships to Bangladesh with relief materials and was simultaneously running two HADR operations; one in Sri Lanka and the other in Bangladesh. INS Sumitra was engaged in search and rescue operations after Mora struck Chittagong.
Tsunami hit the Palu coast of Indonesia	2018	High death toll and shortage of food and fuel.	India launched 'Operation Samudra Maitri' to assist the disaster victims in the province of Central Sulawesi. Two IAF aircrafts, C-130J and C-17, carried onboard medical personnel and relief material consisting of tents, generators and water to set up a field hospital and provide immediate assistance. Three Indian Naval Ships INS Tir, INS Sujatha and INS Shardul were also deployed from the Southern Naval Command to provide humanitarian assistance and disaster relief.

* Data collated from the references below

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In the wider frame of the Indo-Pacific, the Bay of Bengal is fast gaining strategic salience as a maritime space. As India ventures into its policy of 'Acting East' and prioritising its neighbourhood in an attempt to play a bigger role in the Indo-Pacific, the Bay emerges as a cardinal sub-region for the country's strategic manoeuvres. In such a scenario, it becomes imperative for India to not only engage with the littorals of the Bay of Bengal but also those countries which frame this maritime space as it merges into the Strait of Malacca via the Andaman Sea. This report analyses India's maritime connectivity with the littorals of the 'extended Bay': Thailand, Malaysia, Singapore and Indonesia. It scrutinises the state of India's maritime connectivity by studying not only the fundamental physical linkages like port logistics, but also humanitarian assistance and disaster relief. The study also delves into India's strategic equations with the extended-Bay countries and explores the region's potential as India's stepping stone into the wider Indo-Pacific.



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