Ensuring Secure Seas

INDIAN NAVY

MARITIME SECURITY STRATEGY

(INMSS-2026)



Naval Strategic Publication (NSP) 1.2


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Foreword

India's geography, history and economic progress reinforce its identity as a maritime nation. Its peninsula extending into the Indian Ocean has influenced India's trade, culture and strategic outlook for centuries. A coastline of over 11,000 kilometres, 1,300+ islands, and an Exclusive Economic Zone of over two million square kilometres give India a distinct maritime character. Nearly 95 per cent of India's trade by volume and about 68 per cent by value moves through the sea, in which vast offshore resources add to the oceans' economic importance. The seas, therefore, are central to India's security and economic well-being.

As India progresses towards the vision of *Viksit Bharat* by 2047, the importance of the seas will only grow. In this context, maritime trade, connectivity and blue economy will remain vital drivers of national development and economic prosperity. Over the past decade, India's maritime outlook has driven sustained national efforts in strengthening the maritime sector. These efforts include investments in ports, shipyards, logistics and coastal connectivity, as well as the use of the seas as conduits for advancing regional growth and security. Together, these initiatives reflect a renewed emphasis on harnessing the seas for national development, economic transformation and constructive maritime engagement.

However, India's maritime resurgence is unfolding in an increasingly contested and uncertain global environment. Traditional distinctions between peace and conflict are becoming less clear, as grey zone challenges rise in frequency and complexity. The rapid pace of technological change is transforming both the character of maritime threats and the conduct of naval operations. In this evolving scenario, maritime security has

assumed greater significance and demands a credible capability guided by a coherent strategy.

Against this backdrop of new opportunities and challenges, the Indian Navy safeguards national maritime interests across the spectrum of conflict and defends territorial integrity including coastal and offshore interests. As the *primary instrument* and *principal manifestation* of India's maritime power, the Indian Navy is responsible for deterring conflict, and when necessary, prevail in No War No Peace and conflict situations. Through sustained deployments and cooperative engagements, the Indian Navy not only secures India's maritime lifelines, but also contributes to regional stability, reinforcing India's role as a responsible maritime partner.

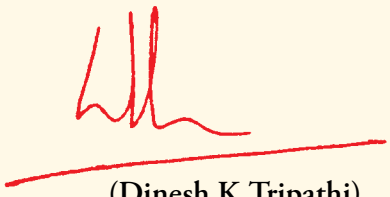
To perform these roles effectively in a complex and changing environment, a clear strategic direction is essential, that defines how the Indian Navy will be employed to secure national objectives. The previous Indian Maritime Security Strategy, promulgated in 2015, provided a framework for the development and employment of the Indian Navy. However, the scale, speed and complexity of changes in the maritime security environment now warrant a renewed articulation of strategic direction.

Accordingly, the *Indian Navy Maritime Security Strategy–2026 (INMSS-2026)* reflects the significant shifts in the maritime security environment and the evolving character of warfare. Following an *Ends–Ways–Means* construct, it articulates how the Indian Navy will be employed across the spectrum of conflict through *five overarching strategies*, supported by clearly defined sub-strategies. In that, it also aligns with the extant higher national directives and growing impetus to jointness and integration. In keeping with the doctrinal articulation of *No War No Peace*, in Naval Strategic Publication 1.1 (Indian Maritime Doctrine – 2025), the INMSS-2026 introduces an additional strategy to enable the Indian Navy to prevail in situations below the threshold of conflict. Further, as compared to IMSS-2015, the detailed guidance on maritime force and capability development now forms part of the Indian Navy's capability development plans, which will be shaped by the overarching direction provided by INMSS-2026. A new chapter on '*Enablers*' has been added to highlight the *Means* that contribute to the implementation of all strategies. Overall, the revision ensures that the strategy remains responsive to contemporary challenges, caters to the evolving spectrum of conflict, while retaining continuity with established doctrinal foundations.

I am confident that INMSS-2026 will be a resourceful guide for military planners and maritime practitioners, and invaluable to all professionals and institutions involved in India's maritime security. Amidst an evolving security environment and changing character of warfare, this strategy is intended to provide guidance for developing and

employing the Indian Navy over the next decade, ensuring that the Navy remains a *Combat Ready, Credible, Cohesive* and *Future-Ready force,* prepared to *safeguard India's maritime interests at all times.*

Śaṁ No Varuṇaḥ! Jai Hind.



(Dinesh K Tripathi)
Admiral
Chief of the Naval Staff

16 April 2026

Note to Readers

Document Structure and Conventions

This document is structured around the following conventions:-

⚓ **Organisation.** The document is divided into five main sections, sequenced as Ends, Threats, Means, Ways and Risks, in that order, reflecting the logical flow from strategic objectives to their execution and associated risk assessment.

⚓ **Chapter Snapshots.** Each chapter opens with a snapshot outlining the scope and content covered therein, enabling selective reference.

⚓ **Strategies, Sub-strategies, and Synthesis.** Each strategy is articulated through sub-strategies, which are further translated into objectives, linked missions and tasks, correlated with the roles of the Indian Navy in the synthesis section.

⚓ **Tense and Intent.** The document is authored in the present continuous, to reflect ongoing and enduring activities, while also encompassing aspirational and developmental actions that the Navy would undertake during the tenancy of this document. The language, therefore, captures both current posture and future direction.

⚓ **Terminology.** Important terms, definitions and statements are rendered in *italics* for emphasis and ease of identification.

⚓ **Data Currency.** Data and figures are qualified with the relevant year, to contextualise the vintage of information cited.

⚓ **Endnotes.** Data references and additional information are included as endnotes at the end of the document.

⚓ **Annexures.** A consolidated list of abbreviations at the beginning; and explanatory notes and a bibliography are provided at the end of the document.

Contents

Section I – Ends

Chapter 1 – Introduction 2
Strategy in Context 3
Maritime Security Strategy 5
Maritime Security Objectives – Ends of Strategy 7
Drivers for Reviewing the INMSS 8
Conclusion 11

Section II – Threats

Chapter 2 – Maritime Security Influences and Imperatives 14
Maritime Security Influences 15
- Maritime Geography 15
- Maritime Outlook 16
- Maritime Leverages 17

Maritime Security Imperatives 23
Areas of Maritime Interest 27
- Primary Areas of Maritime Interest 28
- Secondary Areas of Maritime Interest 28

Conclusion 29

Section III – Means

Chapter 3 – Enablers 32
Overview 33
Capability Development 34
Networks 36
Maritime Domain Awareness 38
Strategic Communication and Information Warfare 41
Maintenance 42
Op Logistics 45
Tri-Service Jointness & Integration and Whole-of-Nation-Approach 48
Conclusion 51

Section IV – Ways

Chapter 4 – Strategy to Shape a Favourable Maritime Environment 54
Overview 55
- Introduction 55
- Core Enablers 55

Sub-Strategies 57
- Sub-Strategy 4.1 – Ensure Presence and Rapid Response. 57
- Sub-Strategy 4.2 – Enhance Security through Cooperative and Collaborative Initiatives as *Preferred Security Partner* 58
- Sub-Strategy 4.3 – Global and Regional Maritime Governance – Engaging as a Responsible Stakeholder 59
- Sub-Strategy 4.4 – Extend support in National/ International Humanitarian situations as *First Responder* 61
- Sub-Strategy 4.5 – Engage, Support and Develop Confidence among India's Maritime Community and Diaspora. 63
- Sub-Strategy 4.6 – Foster Maritime Consciousness at National Level . . 64

Synthesis. 65
Conclusion 69

Chapter 5 – Strategy for Security of Coastal and Offshore Interests 70
Overview 71
- Introduction 71
- Key Definitions. 71
- Coastal and Offshore Security Framework 72
- Core Enablers 74

Sub-Strategies 75
- Sub-Strategy 5.1 – Coordinated Presence and Patrol 76
- Sub-Strategy 5.2 – Joint/ Inter-agency Contingency Plans, Exercises and SOPs 76
- Sub-Strategy 5.3 – Coordinated Operational Response 77
- Sub-Strategy 5.4 – Strengthening of Maritime Security Governance . . . 79
- Sub-Strategy 5.5 – Joint/ Coordinated Capacity Building and Capability Enhancement 79
- Sub-Strategy 5.6 – Enhanced Engagement with Coastal/ Fishing Community 80

Synthesis. 81
Conclusion 83

Chapter 6 – Strategy to Deter Potential Adversaries 84
Overview 85
- Introduction 85
- Conditions for Failure of Deterrence 85
- Core Enablers 86

Nuclear Deterrence 87
- Sub-Strategy 6.1 – Ensure Credibility, Effectiveness and Survivability of Sea-based Component of Minimum Nuclear Deterrence 88

Conventional Deterrence 88
- Sub-Strategy 6.2 – Develop and Sustain a Capable and Credible Force 89
- Sub-Strategy 6.3 – Presence and Posture 90
- Sub-Strategy 6.4 – Enhance Partnerships, Jointness and Coordination 91
- Sub-Strategy 6.5 – Strategic Communication to Reinforce Deterrence 91

Sub-Conventional Deterrence 92
- Sub-Strategy 6.6 – Ensure Robust Security of Assets across domains (including Cyber Domain) 92
- Sub-Strategy 6.7 – Establish Capacities and CONOPS for Reprisal Actions against Non-State Actors 93

Synthesis 93
Conclusion 95

Chapter 7 – Strategy to Prevail in Situations below Threshold of Conflict 96
Overview 97
- Introduction 97
- Considerations for Operating in NWNP 97
- Core Enablers 99

Sub-Strategies 100
- Sub-Strategy 7.1 – Develop Continuous Situational Assessment and Refinement 100
- Sub-Strategy 7.2 – Develop and Integrate Diverse and Scalable Naval Capabilities 100
- Sub-Strategy 7.3 – Pursue Integrated Multi-Stakeholder Frameworks with Multi-Domain Integration 101
- Sub-Strategy 7.4 – Sustained Readiness for Decisive and Swift Response 101

Synthesis 102
Conclusion 103

Chapter 8 – Strategy to Attain National Objectives during Conflict 104
Overview 105
- Introduction 105
- Considerations for Conflict 105
- Core Enablers 106

Sub-Strategies 107
- Sub-Strategy 8.1 – Security of Trade, Energy and Critical Commodities 108
- Sub-Strategy 8.2 – Swift and Overwhelming Response 108
- Sub-Strategy 8.3 – Power Projection Ashore 110
- Sub-Strategy 8.4 – Defending Coastal and Offshore Interests 111
- Sub-Strategy 8.5 – Trade Interdiction and Commodity Denial 112

Synthesis 113
Conclusion 115

Section V – Risks

Chapter 9 – Risks and Way Ahead 118
Risk and Risk Management 119
- Strategic Risk 119
- Operational Risk 120
- Capability Risk 120
- Resourcing Risk 121
- Residual Risk Review 122

Way Ahead 123

Notes 124
Explanatory Notes 135
Acknowledgements 145
Bibliography 146
Index 149

Abbreviations

ABNJ	-	Areas Beyond National Jurisdiction
AD	-	Air Defence
AFMSD	-	Armed Forces Medical Stores Depots
AI/ML	-	Artificial Intelligence/ Machine Learning
AIP	-	Air Independent Propulsion
AIS	-	Automatic Identification System
AMP	-	Assisted Maintenance Period
AOI	-	Areas of Interest
AOR	-	Areas of Responsibility
AST	-	Afloat Support Team
BBNJ	-	Biodiversity Beyond National Jurisdiction
BLO	-	Base Logistics Organisation
BCM	-	Billion Cubic Meters
BSF	-	Border Security Force
BVY	-	Base Victualling Yard
CABS	-	Commodore Bureau of Sailors
CCOp	-	Committee for Cyber Operations
CCD	-	Camouflage, Concealment and Deception
CDFO	-	Cyber Defence Operations
CDS	-	Chief of the Defence Staff
CDTO	-	Cyber Deterrence Operations
CIP	-	Community Interaction Programmes
CISF	-	Central Industrial Security Force
COP	-	Common Operational Picture
CORPAT	-	Coordinated Patrols
COTS	-	Commercial-off-the-Shelf
CSN	-	Coastal Surveillance Network
DCN	-	Defence Communication Network
DES	-	Desired End State
DGNO	-	Director General Naval Operations
DIPAC	-	Defence Image Processing and Analysis Centre
DOP	-	Directorate of Personnel
DMA	-	Department of Military Affairs
DRDO	-	Defence Research and Development Organisation
DSA	-	Defence Space Agency
DSCC	-	Defence Satellite Control Centre
EEZ	-	Exclusive Economic Zone

EW	-	Electronic Warfare
EWOSC	-	EW Op Support Centre
FAS	-	Favourable Air Situation
FFC	-	Friendly Foreign Countries
FLOB	-	Forward Logistics Operating Base
FMU	-	Fleet Maintenance Unit
FOB/S	-	Forward Operating Base/ Site
FODAG	-	Flag Officer Offshore Defence Advisory Group
FSS	-	Fleet Support Ship
FSU	-	Fleet Support Unit
G-2-G	-	Government to Government
GCC	-	Global Capability Centers
GMC	-	Goa Maritime Conclave
GoI	-	Government of India
GRT	-	Gross Register Tonnage
HADR	-	Humanitarian Assistance and Disaster Relief
IA	-	Indian Army
IAF	-	Indian Air Force
ICADS	-	Integrated Capability Development System
ICG	-	Indian Coast Guard
IFC-IOR	-	Information Fusion Centre – Indian Ocean Region
ILA	-	International Logistics Agreements
ILMS	-	Integrated Logistics Management System
ILO	-	International Liaison Officers
IMAC	-	Information Management and Analysis Centre
IMBL	-	International Maritime Boundary Line
IMEC	-	India Middle-East Europe Economic Corridor
IMO	-	International Maritime Organisation
IN	-	Indian Navy
INSTC	-	International North South Transport Corridor
IO	-	Information Operations
IONS	-	Indian Ocean Naval Symposium
IOR	-	Indian Ocean Region
IORA	-	Indian Ocean Rim Association
IPMDA	-	Indo-Pacific Partnership for Maritime Domain Awareness
IPOI	-	Indo-Pacific Oceans Initiative
ISA	-	International Seabed Authority
ISL	-	International Shipping Lanes
ISSR	-	Indian Search and Rescue Region
IUUF	-	Illegal, Unreported and Unregulated (IUU) Fishing

JLN	-	Joint Logistics Nodes
JOC	-	Joint Operations Centres
JVOPAC	-	Joint Venture Offshore Protection Advisory Committee
KLE	-	Key Leadership Engagement
LND	-	Local Naval Defence
LRD	-	Long Range Deployments
LRIT	-	Long Range Identification and Tracking
MAHASAGAR	-	Mutual and Holistic Advancement for Security and Growth Across Regions
MAMSG	-	Multi-Agency Maritime Security Groups
MBD	-	Mission Based Deployment
MCM	-	Mine Counter Measures
MCPP	-	Maritime Capability Perspective Plan
MDA	-	Maritime Domain Awareness
MDF	-	Maritime Development Fund
MEDEVAC	-	Medical Evacuation
MIO	-	Maritime Interdiction Operations
MIPP	-	Maritime Infrastructure Perspective Plan
MLC	-	Military Logistics Complex
MMT	-	Million Metric Tonnes
MO	-	Material Organisation
MOC	-	Maritime Operations Centres
MoPS&W	-	Ministry of Ports, Shipping, and Waterways
MPIC	-	Media and Public Information Cell
MRCC	-	Maritime Rescue Coordination Centre
M-SAR	-	Maritime Search and Rescue
MSIS	-	Merchant Shipping Information System
MSME	-	Micro, Small and Medium Enterprises
MSO	-	Maritime Security Objectives
MTBF	-	Mean Time Between Failures
MTC	-	Maritime Theatre Command
MTP	-	Missile Technical Positions
MTT	-	Mobile Training Team
N3CI	-	National Command Control Communication and Intelligence Network
NAD	-	Naval Armament Depot
NAIS	-	National Automatic Identification System
NAY	-	Naval Aircraft Yard
NCAGS	-	Naval Control and Guidance to Shipping
NCSMCS	-	National Committee on Strengthening Maritime and Coastal Security against Threats from the Sea

NCO	-	Network Centric Operations
NDPS	-	Narcotic Drugs and Psychotropic Substances
NDRF	-	National Disaster Response Force
NEO	-	Non-combatant Evacuation Operations
NFU	-	No First Use
NGS	-	Naval Gunfire Support
NLP	-	National Logistic Policy
NMDA	-	National Maritime Domain Awareness
NMO	-	National Military Objectives
NMSC	-	National Maritime Security Coordinator
NRI	-	Non-Resident Indian
NSCS	-	National Security Council Secretariat
NSO	-	National Security Objectives
NSRY	-	Naval Ship Repair Yard
NWNP	-	No War No Peace
ODA	-	Offshore Development Area
ODF	-	Operational Data Framework
OEM	-	Original Equipment Manufacturer
OOAC	-	Out of Area Contingency
OODA	-	Observe Orient Decide Act
OPA	-	Offshore Prospective Areas
ORFC	-	Operational Readiness Facility Containers
OSCC	-	Offshore Security Coordination Committee
PANS	-	Pre-Arrival Notification of Security
PIO	-	Persons of Indian Origin
PM	-	Perception Management
PME	-	Professional Military Education
PMF	-	Practice Missile Firings
PMGS	-	PM Gati Shakti
PMMSY	-	Pradhan Mantri Matsya Sampada Yojana
PMOC	-	Principal Maintenance Officers Committee
PSM	-	Presence and Surveillance Missions
PSO	-	Peace Support Operations
PSU	-	Public Sector Unit
PSYOPS	-	Psychological Operations
QSD	-	Quadrilateral Security Dialogue
RsOE	-	Rules of Engagement
R/S/A CSOC	-	Regional/ State/ Area Coastal Security Operations Centre
SAGAR	-	Security and Growth for All in the Region
SALW	-	Small Arms and Light Weapons

SAR	-	Search and Rescue
SbDS	-	Shipbuilding Development Scheme
SBFAP	-	Shipbuilding Financial Assistance Policy
SBFAS	-	Shipbuilding Financial Assistance Scheme
SCC	-	Strategic Communication Committee
SLBM	-	Submarine-Launched Ballistic Missiles
SLOC	-	Sea Lines of Communication
SMP	-	State Marine Police
SMAC	-	Subsidiary Multi-Agency Centre
SMSC	-	State Maritime Security Coordinator
SOP	-	Standard Operating Procedure
SSBN	-	Type-Designator for Nuclear-Powered Ballistic Missile Submarine
STRATCOM	-	Strategic Communication
STUFT	-	Ships Taken Up From Trade
TTP	-	Tactics Techniques and Procedures
UDA	-	Underwater Domain Awareness
VATMS	-	Vessel and Air Traffic Management System
VBSS	-	Visit, Board, Search and Seizure
VCSS	-	Vessel Communication and Support System
VTMS	-	Vessel Traffic Management Systems
WED	-	Weapon Equipment Depot
WMD	-	Weapons of Mass Destruction
WPNS	-	Western Pacific Naval Symposium
WSIE	-	White Shipping Information Exchange

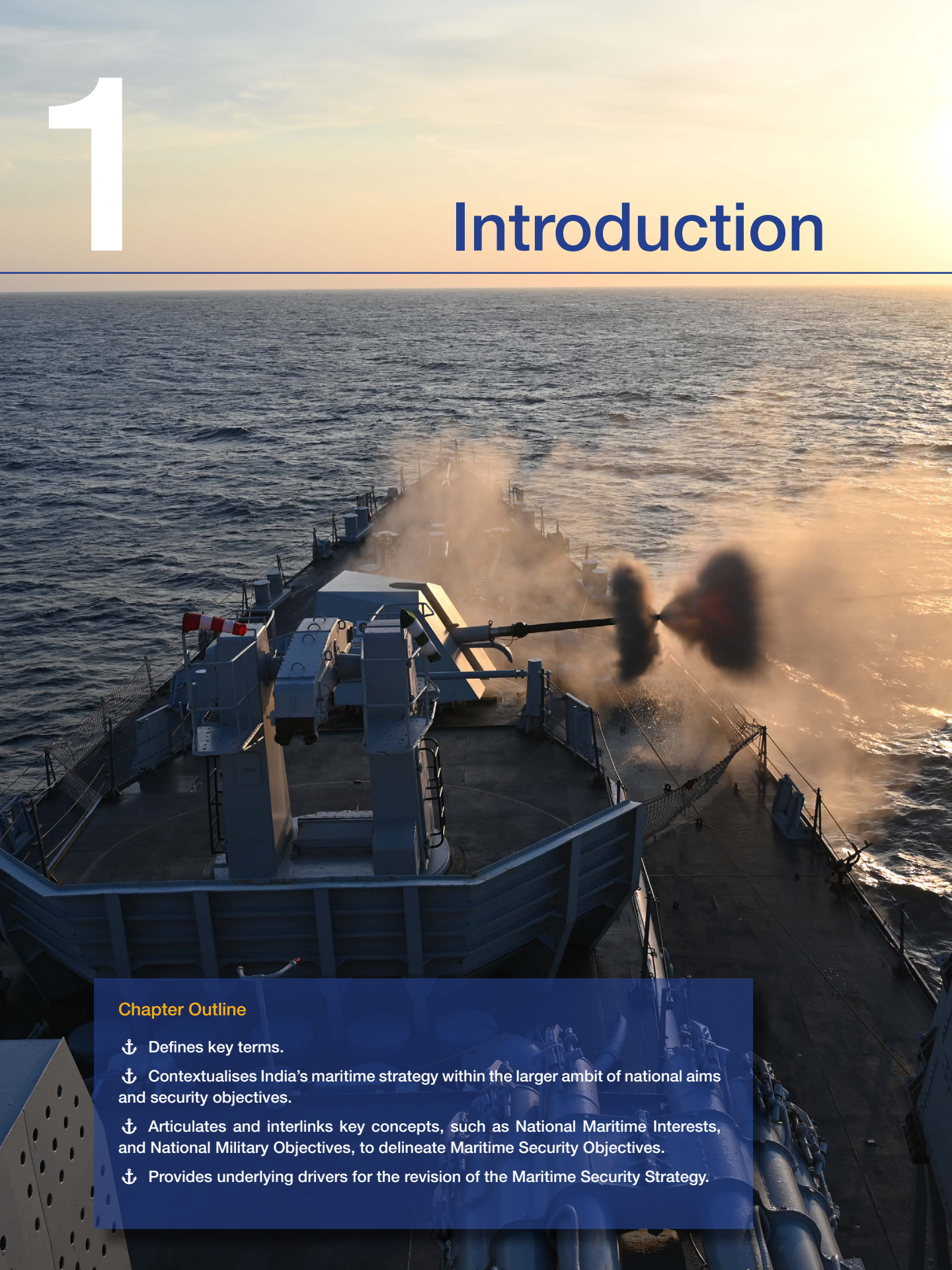
Ends

⚓ *Ends constitute the military objectives, derived from National Policy, that the Indian Navy seeks to achieve through the application of Maritime Power*





1 Introduction



Chapter Outline

- Defines key terms.
- Contextualises India's maritime strategy within the larger ambit of national aims and security objectives.
- Articulates and interlinks key concepts, such as National Maritime Interests, and National Military Objectives, to delineate Maritime Security Objectives.
- Provides underlying drivers for the revision of the Maritime Security Strategy.

India is a maritime nation, and its progress and prosperity are closely linked to the seas. The salience of the oceans as a *resource*, encompassing energy, minerals, fisheries, and blue economy potential, among others, as well as a *medium* for free flow of energy and trade, will be central to India's journey to becoming a leading global economic power and a developed nation by 2047. As the primary instrument and principal manifestation of India's maritime power responsible for India's overall maritime security, the Indian Navy's core task is to safeguard India's national maritime interests, so as to ensure the sustained growth, progress and prosperity of our nation. This is supported by an overarching *strategy* that provides a framework for the development and deployment of the Indian Navy to address maritime security challenges faced by our nation within a specified timeframe.[1]

This chapter articulates the constituents of maritime strategy, situating it within the broader ambit of national aims and objectives. With this as the background, it provides the underlying rationale for this document.

Strategy in Context

Defining Strategy. A strategy is best defined as a plan of action, which is formulated in support of policies and interests and contributes towards attainment of specified objectives. The conceptual framework for the development of strategy is shaped by doctrine, which defines the fundamental principles that guide military actions in support of national objectives (see Figure 1.1)[2].

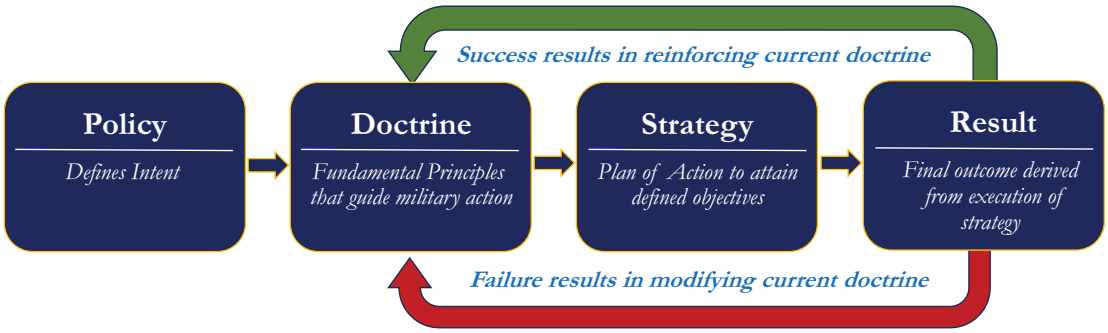


Figure 1.1: Doctrine and Strategy in Context

National Security Concepts and Military Strategy. A military strategy is one of the subsets of the overall National Security Strategy, which is guided by the National Security Policy (see Figure 1.2). Policy is a function of a nation's National Security Objectives, both of which guide development of strategies in the exercise of national power. Policy



Figure 1.2: National Security Concepts and Strategy

and objectives are guided by National Interests, which derive from National Values and National Aim. National Security Strategy is, thus, the plan for employment of various tools of national power in accordance with National Security Policy, to achieve National Security Objectives, in furtherance of National Interests. Military, which is a key instrument of national power, derives its joint strategy, followed by Service specific strategies, including the Navy's Maritime Security Strategy, from the National Security Strategy. The subsequent paragraphs outline key national security concepts, drawing upon the Indian Maritime Doctrine 2025 (IMD-2025) to provide continuity and a clear conceptual framework for this strategy.

National Values and National Aim. National Values evolve from a nation's culture and history and are based on enduring social, religious, moral and ideological principles. India's National Aim is derived from the Constitution of India and amplified through strategic vision enunciated by the leadership over the years. India's National Aim is directed towards 'comprehensive national development' and creating a conducive external and internal security environment for unhindered and inclusive socio-economic development.[3]

National Interests. The mix of National Values and National Aim gives shape to National Interests. India's national interests are derived from the need to protect and preserve our core values as enshrined in our Constitution, which are summarised as follows:-

- To preserve the sovereignty, unity and territorial integrity of India.
- To preserve the democratic, secular and federal character of the Indian Republic.

- To safeguard India's existing and emerging strategic, political, economic and military goals in consonance with the National Aim.

- To ensure a stable, secure and peaceful internal and external environment conducive to unhindered economic growth and prosperity.

- To contribute towards promotion of international peace and stability.[4]

National Security Objectives (NSOs). National Security Objectives flow from, and are designed to, safeguard our National Interests. National Security Objectives, like interests, influence our political, military and economic dimensions. India's NSOs are as follows:-

- Maintain a credible deterrent capability to safeguard National Interests.

- Ensure defence of national territory, air space, maritime zones including our trade routes and cyber space.

- Maintain a secure internal environment to guard against threats to our unity and development.

- Expand and strengthen 'Constructive Engagement' with other nations to promote regional and global peace, and international stability.[5]

National Security Policy. National Security Policy is based on our NSOs and the components of national power, weighed against the prevailing and assessed future domestic and global environment. It provides the policy guideline for development of strategies in the exercise of national power.[6]

National Security Strategy. National Security Strategy is the framework that translates National Security Policy into concrete action. While India's National Security Policy/ National Security Strategy have not been explicitly articulated, their essence has been enshrined in various orders, directives and guidelines issued by the Government of India (GoI) from time-to-time.

Maritime Security Strategy

India's Maritime Strategy. Pending articulation of a broader national document, India's Maritime Strategy at the national level could be defined as *India's overall approach to the oceans around it, with the aim of synergising all aspects related to maritime*

activities, to maximise national gains. The strategy also aims to achieve *a safe and secure maritime environment as one of the primary enablers of Viksit Bharat 2047*. The military dimension of India's Maritime Strategy is termed as the *Indian Navy Maritime Security Strategy (NSP 1.2)* (hereinafter referred to as the INMSS in this document), or simply, the strategy. The IMD-2025 provides the ideational framework for the INMSS. Since several maritime activities take place outside the country's sovereign jurisdiction, they often need to be supported militarily, either directly or indirectly. Consequently, the INMSS is an inseparable and integral part of India's National Maritime Security Strategy, and also has direct linkages with the nation's diplomatic and economic strategies.

Indian Navy Maritime Security Strategy. The INMSS draws inspiration from its earlier iterations, particularly the Indian Maritime Security Strategy (2015) and is based on the principles and concepts of national security and maritime power, mentioned in the Defence Forces Vision 2047, Joint Doctrine for Indian Armed Forces (2017) and IMD-2025.[7] It is also guided by the Indian Navy's Vision 2047 – '*To be a Combat Ready, Credible, Cohesive and Future Ready, multi-domain, all-mission capable, networked and Atmanirbhar force that is seamlessly integrated with other Services to provide viable options across the spectrum of conflict, while protecting, promoting, pursuing and preserving national maritime interests.*'[8] A ten-year timeframe (2026-2036) has been outlined for the INMSS, with a mid-tenure review after five years, in order to keep the document contemporary. However, it is conceivable that changes in the geopolitical environment, warfighting methods, technological advances, etc., may warrant an earlier review. The INMSS serves the following objectives:-

⚓ *It elaborates Ways, to relate Ends to Means.* The *Ends* of INMSS comprise the Maritime Security Objectives (MSOs) centred on *safeguarding national maritime interests at all times.* The *Means* to achieve these ends, include the capability and resources of India's maritime agencies and forces, foremost among these being a multi-dimensional and versatile Navy, supported by state-of-the-art platforms, capabilities and full spectrum combat and support enablers, and operated by a skilled human resource. The *Ways* outlined in this strategy can be described as plans of action, or broad guidelines, for the utilisation of the navy across the entire peace-war continuum, towards attainment of specified objectives.

⚓ *The Strategy is a significant tool in maritime planning, because it provides the rationale for application of maritime power flexibly over a range of contingencies and areas.* INMSS offers a perspective to operational commanders and provides a foundation for planning and conduct of operations. It does not, however, purport to be a detailed war plan, since operational commanders' actual plans for conduct

The Indian Navy's maritime security aim is to '*Safeguard India's National Maritime Interests at all times.*'

of operations are guided by the circumstances prevailing at the time. The INMSS is equally valuable in shaping and disseminating shared professional consensus on warfighting aspects.

In summary, the objective of the INMSS is to elaborate the *Ways*, to utilise the *Means* to achieve the *Ends* by countering the *Threats* and managing the *Risks*. While the subsequent chapters address *Ways, Means, Threats* and *Risks*, the *Ends* of this strategy are outlined in the next section.

Maritime Security Objectives – *Ends* of Strategy

Constituents. For the purposes of this strategy, the MSOs constitute the ends of strategy, and are derived from a combination of National Maritime Interests, the NMOs promulgated by the Chiefs of Staff Committee (COSC) and the Indian Navy's maritime security aim.

National Maritime Interests. India's National Maritime Interests addressed by this strategy are summarised below:-[9]

- Protection of India's sovereignty and territorial integrity against threats in the maritime environment.

- Safety and security of trade, shipping, fishing, energy flows, assets, infrastructure, investments, resources and Indian citizens (including seafarers and overseas diaspora) operating in the maritime domain.

- Peace, stability and security in India's maritime zones, maritime neighbourhood and other areas of maritime interest.

- Preservation and protection of other national interests in the maritime domain.

Indian Navy's Maritime Security Aim. Indian Navy's maritime security aim is to '*Safeguard India's National Maritime Interests at all times*.'

Maritime Security Objectives. Indian Navy's MSOs, flowing from the National Maritime Interests, Maritime Security Aim and NMOs, are as follows:-

- ⚓ Shape a favourable maritime environment to enhance India's maritime security.
- ⚓ Protect India's territorial integrity, including coastal and offshore interests and infrastructure, from threats emanating at or from the sea.
- ⚓ Deter conflict and coercion against India.
- ⚓ Prevail in situations below the threshold of conflict.
- ⚓ Attain national military objectives during conflict.
- ⚓ Extend support in national/ international humanitarian situations, crises, disasters and contingencies.

Drivers for Reviewing the INMSS

While several causal factors have influenced the revision of strategy, the drivers for this revision can be broadly attributed to four significant changes: the evolving geopolitical landscape; emerging warfighting concepts; disruptive technologies; and developments related to the Higher Defence Organisation and maritime security architecture of our country.

Geopolitical Landscape. The global geopolitical landscape remains defined by power contests. This contestation, apart from creating uncertainty, is triggering shifting alliances, erosion of established norms, marginalisation of global institutions, and decoupling of economies in an interconnected global ecosystem. Revisionist and rising powers, along with increasingly influential non-state actors, are accelerating the redistribution of power. As a result, a state of constant contestation and conflict has emerged, blurring the lines between war and peace, and creating a No War No Peace (NWNP) zone. Simultaneously, the Indo-Pacific region is gaining salience in global affairs, as the strategic contestation between the US and China intensifies. The region has also become central to global commerce, connectivity and collaboration. Amidst this evolving landscape, India has witnessed relatively robust and stable socio-economic growth. India's expanding economic footprint – poised to become the world's third largest economy within this decade – is steadily translating into greater strategic autonomy, growing influence over critical trade and energy corridors, and a more consequential voice in shaping the international order and the Global South.[10]



Figure 1.3. The Contemporary Operational Environment

However, our security environment faces persistent challenges, through a growing web of collusive relationships amongst inimical states; fragile political and security situation in India's neighbourhood; and emergence of new types of security challenges and actors, necessitating constant refinement and recalibration of our security outlook and preparedness.

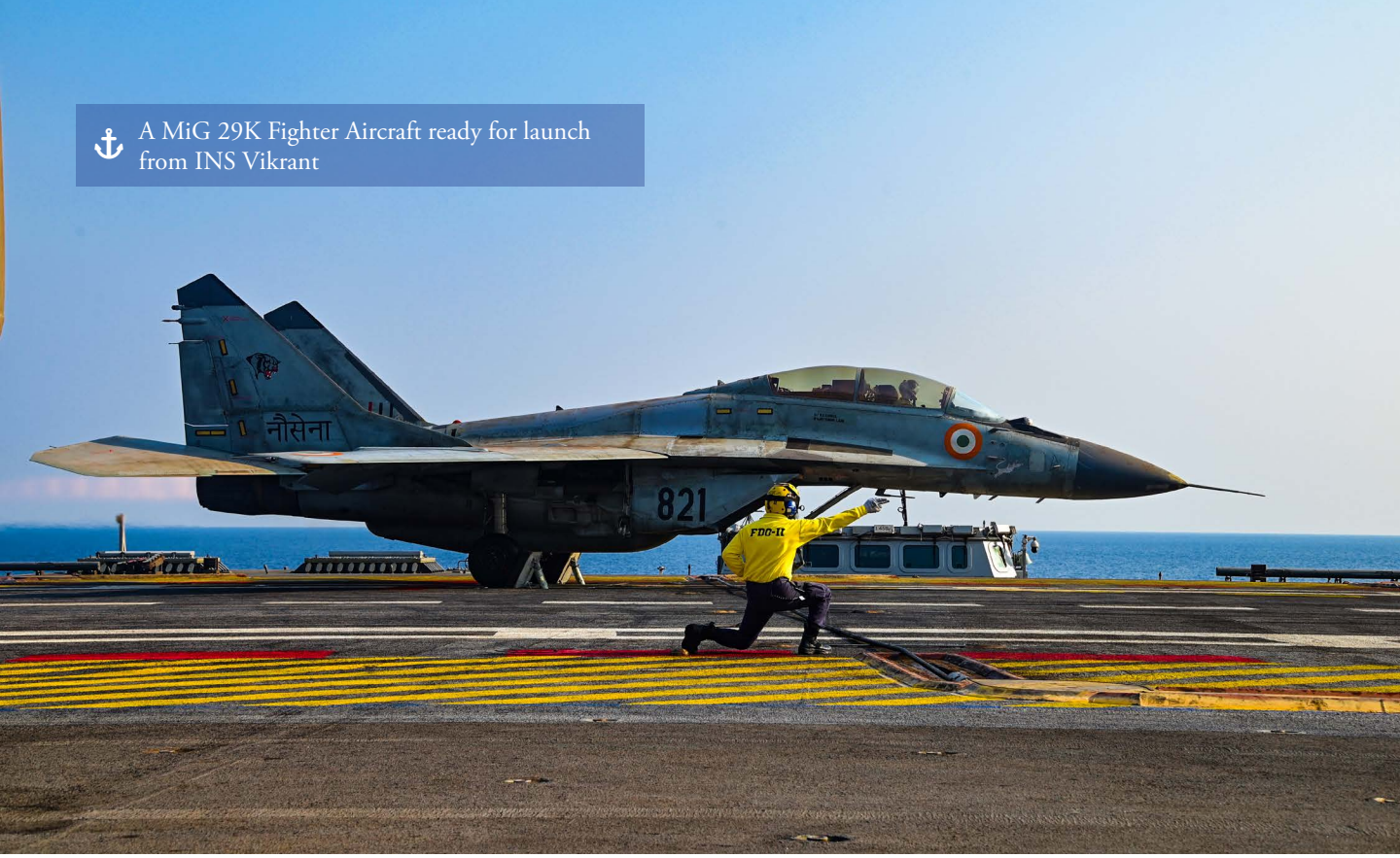
Emerging Warfighting Concepts. Within an evolving geopolitical environment, significant shifts are underway in the realm of war-fighting. The NWNP zone outlined earlier, has transitioned the traditional binary of war and peace, into a more diffused, omnipresent state of competition with potential adversaries across existing

Drivers for the revision can be broadly attributed to four significant changes: the evolving geopolitical landscape; emerging warfighting concepts; disruptive technologies; and developments related to the Higher Defence Organisation and maritime security architecture of our country.

and emerging domains of warfare. The development of disruptive, niche, and often low-cost technologies has enabled the proliferation of capabilities across actors – small and large – and state and non-state. Grey Zone actions have assumed primacy, and constitute a conscious choice for adversaries. Broader geopolitical contests, along with changes in the warfighting paradigm, have led to a protracted state of competition/conflict, while short, swift wars continue to remain relevant. Space, cyber and cognitive domains have also gained prominence.

Disruptive Technologies. Technology has always underpinned strategy; however, it is the pace, scale and convergence of contemporary technological advancements that have fundamentally altered the character of warfare. Disruptive technologies – uncrewed attritable platforms, AI-enabled targeting and decision-support tools, long-range stand-off vectors, precision-guided munitions, space-based Intelligence, Surveillance and Reconnaissance (ISR), and real-time, resilient data fusion that compresses the Observe, Orient, Decide, Act (OODA) loop – are reshaping the battlefield. Concurrently, the enduring relevance of conventional platforms hinges on periodic upgrades and technological infusion. The proliferation of low-cost attritable systems has introduced a significant dimension of cost asymmetry, while the weaponisation of social media and cyber tools has expanded conflicts into the cognitive domain. Emerging frontiers in quantum computing, nanotechnology, robotics and biotechnology promise further disruption. Amidst fragile global supply chains, shifting alignments and India's aspiration towards attaining its goal of a *Viksit Bharat, Atmanirbharta* in defence technologies and capabilities remains a core national imperative to protect our national interests.

Higher Defence Organisation and Maritime Security Architecture. The evolution of India's Higher Defence Organisation, through the appointment of the Chief of the Defence Staff (CDS); the establishment of the Department of Military Affairs (DMA); and sustained institutional impetus to jointmanship and integration, requires recalibration of strategies across the spectrum of naval roles. Impending theaterisation and its potential implementation during the tenancy of this document necessitate an adaptive strategic framework that is responsive to possible organisational and operational restructuring. Beyond the ambit of the Higher Defence Organisation, yet



A MiG 29K Fighter Aircraft ready for launch from INS Vikrant

with significant bearing on the maritime dimension, the appointment of the National Maritime Security Coordinator (NMSC) under the National Security Council Secretariat (NSCS) marks a pivotal shift in India's maritime security governance architecture, elevating maritime security into an integrated national enterprise through a whole-of-government approach. Responding effectively within this evolving paradigm requires conceptual adaptability, as well as a nuanced application of strategy, informed by resource challenges and an understanding of the expanding threat spectrum, across our overall security landscape.

Conclusion

With the enunciation of MSOs *(Ends)* in Chapter 1, the subsequent chapters will describe the *Threats and Challenges* in Chapter 2; followed by *Ways*, in the form of various strategies in the ensuing chapters. Chapter 3 incorporates the *Enablers (Means)* that underscore and facilitate the effective employment of all strategies *(Ways)*. While a particular strategy may be designed to meet specific Maritime Security Objective(s), no strategy is expected to work in isolation; strategies would be applied sequentially, concurrently, or in combination, as circumstances dictate. Considering the rapid evolution of threats and challenges in the maritime domain, a practitioner may be required to improvise on the *Ways* mentioned in the document, with a clear aim of achieving the MSOs *(Ends)*. ⚓

Threats

⚓ *The start point of any strategy is invariably a threat (or threats) – real or perceived*





2 Maritime Security Influences and Imperatives



Chapter Outline

⚓ Conceptualises strategy as a link between the *Ends* and *Ways*, and articulates the diverse factors that guide its formulation.

⚓ Articulates various maritime security *influences*, as factors which shape, or have the capacity to shape India's maritime security paradigm.

⚓ Discusses maritime security *imperatives*, comprising threats and challenges that mandate response by the Indian Navy.

⚓ Delineates *Areas of Maritime Interest*, which include Primary and Secondary Areas of Interest, as also the related concept of *Areas of Responsibility*.

This chapter articulates the factors that shape formulation of strategy, acting as a link between *Ends* (outlined in Chapter 1); and *Ways* elaborated in the follow on chapters. The chapter is structured into three sections: *Maritime Security Influences; Maritime Security Imperatives*; and *Areas of Maritime Interest.*

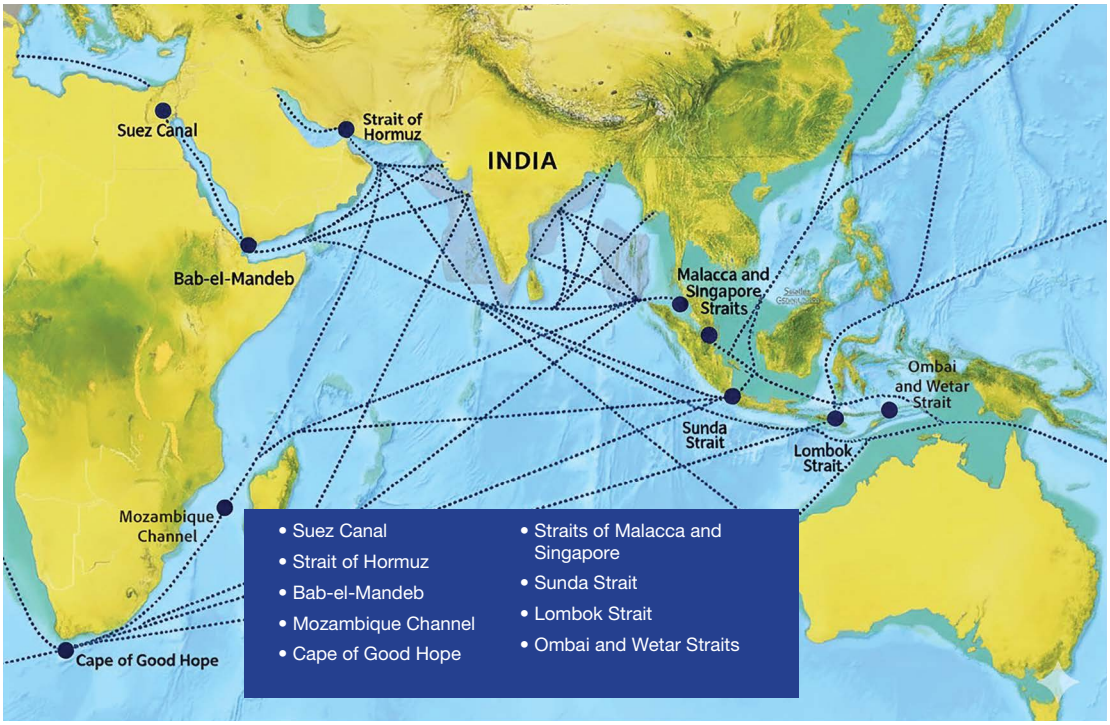
Maritime security influences comprise all factors that shape, or have the potential to shape, India's maritime security paradigm. These factors include maritime geography, maritime outlook and maritime leverages. *Maritime security imperatives*, on the other hand, are derived from potential threats and challenges to India's maritime interests. They represent non-negotiable, binding priorities that mandate collective action. In essence, while both influences and imperatives are factors guiding formulation of strategy, influences define the broader context that shape formulation of strategy; while imperatives represent specific threats and challenges to India's maritime interests within that context.[11] The last section outlines the geographical extent of India's Areas of Maritime Interest, which are further subdivided into Primary and Secondary Areas of Maritime Interest.

Maritime Security Influences

Maritime Geography

In many ways, geography serves as the foundational influence for maritime strategy. The Indian peninsula, extending over a thousand miles into the sea, characterises the Indian Ocean. India's central position in the IOR astride major International Shipping Lanes (ISLs) accords India distinct attributes and advantages. It also places the outer fringes of the IOR and most choke points almost equidistant from India, thereby facilitating reach, sustenance and mobility of maritime forces across the region. India is, therefore, well positioned to shape its maritime space, and promote and safeguard its national maritime interests across the IOR.

India also has a long coastline of 11,098.81 km, with 1389 islands, which are endowed with several natural harbours.[12] The Andaman and Nicobar, and the Lakshadweep and Minicoy groups of islands, serve as strategic outposts, further expanding India's maritime frontiers. A large Exclusive Economic Zone (EEZ) of more than two million sq. km underscores the extent of our maritime frontiers. With the anticipated addition of approximately 1.2 million sq. km of Continental Shelf through India's submissions to the UN Commission on the Limits of the Continental Shelf (2009 and 2025), India's seabed and sub-seabed areas could almost equal the Indian landmass.[13]



Map 2.1: Choke Points and ISLs in IOR

Maritime Outlook

The outlook of a nation's government and citizens towards a country's maritime potential is an important influence in shaping maritime strategy. Over the past few years, India's growing economy has resulted in the seas gaining prominence in our strategic calculus and widening maritime consciousness among the citizenry. GoI policies have been focussed on harnessing the full potential of the seas through various initiatives for national advancement and growth. The vision of *MAHASAGAR* (Mutual and Holistic Advancement of Security and Growth Across Regions)[14] is a natural advancement over the vision of *SAGAR* (Security and Growth for All in the Region), and signifies India's broader strategy to expand its contributions and impact across the Global South, using the seas as a conduit.[15] The *Maritime India Vision 2030* (MIV 2030) provides a blueprint for the growth of India's maritime sector.[16] *Maritime Amrit Kaal Vision 2047*, further builds on MIV 2030 and encompasses India's aspirations in the maritime sector, with a focus on logistics, infrastructure, shipping and blue economy.[17] *Sagarmala* is aimed at port-led development by leveraging India's long coastline. Several other policy initiatives and frameworks are likely to emerge during the tenancy of this document and the overarching trajectory of a focussed and expanding national endeavour to harness India's maritime potential is now well established.

India's maritime outlook is also evidenced throughout history, where intrepid Indian traders pursued commercial interests far and wide. Transnational movement of goods and people implied cultural exchanges and human interactions, which, thereafter, shaped settlements across vast geographies. Today, India accounts for the largest diaspora in the world, with more than 34 million people, spread across 203 nations and territories. These include over 15 million Non-Resident Indians (NRIs) and 19 million Persons of Indian Origin (PIOs), who maintain close links with India.[18] Significantly, the diaspora is concentrated in littoral regions, particularly across West Asia, Southeast Asia, and coastal urban centres globally, allowing access through the maritime medium. Indian seafarers, in addition, comprise over 300,000 individuals, and rank as the world's third-largest maritime workforce, accounting for nearly 12% of the global seafaring strength.[19] The safety and security of Indian diaspora in these countries, as also Indian seafarers, influences India's maritime outlook.[20]

Maritime Leverages

Maritime leverages represent the tangible and intangible sea-based assets, resources, infrastructure and sea-based activities that a nation can harness and/ or exploit for its economic growth and national prosperity. Three principal categories of maritime leverages are relevant to India: *maritime resources*; *maritime economy*; and *marine infrastructure*.

Maritime Resources. Maritime resources encompass the comprehensive array of living, non-living and renewable assets found within oceanic environments, including biological resources, seabed minerals and energy resources, which can be exploited and transformed into economic value, strategic advantage or geopolitical leverage.

⚓ **Fisheries.** India's fisheries sector represents one of the world's most significant marine resource exploitation systems, positioning the nation as the second-largest fish-producer globally.[21] With 8% share in global fish production, the fisheries and seafood sector generates foreign exchange earnings of approx. $7.3 bn (2024 figure).[22] Beyond its economic impact, the fisheries sector serves as a critical source of livelihood for over 28 million people, demonstrating the role of traditional maritime resource extraction in both national economic growth and social stability.[23] GoI impetus towards the fisheries sector is evident through the *Pradhan Mantri Matsya Sampada Yojana (PMMSY)*, which supports India's fisheries sector through an investment of $2.4 bn (₹20,050 crore).[24]

⚓ **Offshore Oil and Gas.** India's offshore oil and gas production plays a critical role in meeting domestic energy demands. In FY 2024-25, India produced

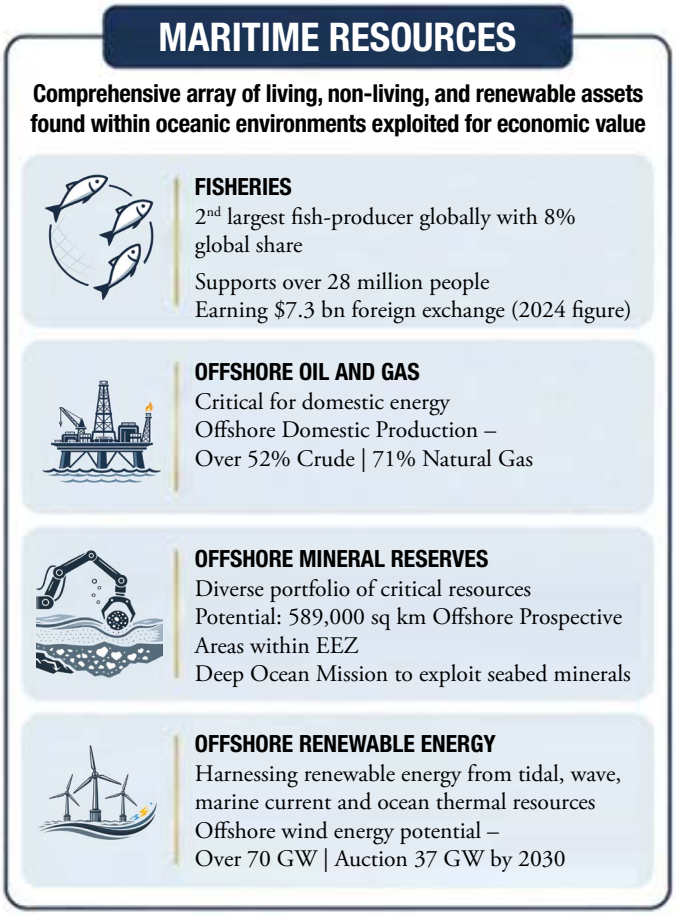


Figure 2.1: Maritime Resources

28.70 MMT (Million Metric Tonne) of crude oil, of which 52.6% came from offshore crude oil production.[25] Natural Gas production of 36.11 BCM (Billion Cubic Meters) primarily came from offshore areas, which contributed 71.8% of total national gas production.[26] Despite import of 88% of India's crude requirement and nearly 50% of natural gas requirement, offshore production remains indispensable in reducing import reliance and stabilising supply (also see sub-para on energy security).[27] Offshore exploration efforts are also being proactively expanded by the GoI through the award of large exploration acreages, especially in deep-water and ultra-deep-water areas, to encourage discoveries.

⚓ **Offshore Mineral Reserves.** The seabed is emerging as a domain of both opportunity and competition, with significant strategic, economic and scientific implications. India's offshore mineral reserves constitute a diverse portfolio of critical resources that range from traditional precious metals, like gold and diamonds, to materials essential for green energy transition, including copper, nickel, cobalt, manganese and rare earth elements.[28] The Geological Survey of India has delineated 589,000 sq km Offshore Prospective Areas (OPA) within the country's EEZ, to harness critical resources, such as heavy minerals, lime mud and polymetallic nodules.[29] India's commitment to deep-sea mineral exploration is demonstrated through its three existing contracts with the International Seabed Authority (ISA) covering 95,000 sq km in the IOR.[30] Proposal for an additional 3,000 sq km for cobalt-rich ferromanganese crusts of the Afanasy-Nikitin seamount in the Central Indian Ocean is pending before the ISA.[31] This

comprehensive offshore mineral potential is supported by ongoing endeavours, such as the Deep Ocean Mission launched in September 2021 to undertake mining at 6000 m, which is supported by the Indian Navy. These initiatives will position India among select nations capable of accessing and exploiting the ocean's seabed mineral wealth.[32]

⚓ **Offshore Renewable Energy.** The development of India's offshore renewable energy capacity is crucial for India's commitment to sustainable energy diversification, and leveraging its vast maritime zones for power generation. With an extensive coastline, India possesses significant offshore wind energy potential, estimated at over 70 GW, majority of which is concentrated off Gujarat and Tamil Nadu coasts.[33] Recognising this potential, the government aims to conduct 37 GW of offshore wind energy auctions by 2030.[34] India is also developing the potential to harness renewable energy from tidal, wave, marine current and ocean thermal resources in the future.[35]

Maritime Economy. Maritime economy covers the range of economic activities related to the maritime domain, which support national development.[36] These include blue economy; trade and shipping; energy security; overseas maritime investments; and maritime corridors.

⚓ **Blue Economy.** Blue economy constitutes a subset of the national economy comprising sustainable exploitation of ocean resources and economic infrastructure in marine, maritime and onshore coastal zones within India's legal jurisdictional areas. India's blue economy is projected to contribute nearly $100 bn to the national GDP by 2030.[37] The sector involves coordination across 24 GoI Ministries and spans diverse activities from the Deep Ocean Mission, to various programmes under the *Maritime India Vision 2030*. It is recognised as a key focus pillar within India's *Viksit Bharat Vision for 2047*.[38]

⚓ **Trade and Shipping.** Nearly 95% of the country's trade by volume, and 68% by value, is moved through maritime transport.[39] India's shipping sector has charted a steady growth over the past decade, with the number of Indian-Flagged vessels rising from 1246 in 2015 to 1549 in 2025. The cumulative Gross Register Tonnage (GRT) has risen from 10.51 million tonnes, to 13.52 million tonnes over the same period.[40] These figures highlight the critical role of India's shipping sector in sustaining both coastal and overseas trade, underscoring its importance to the nation's economic growth and global connectivity. However, approximately 95% of India's seaborne trade is carried on foreign-owned or foreign-flagged vessels,[41] with India's share of global ship ownership standing at a mere 1.5%.[42] This reliance on

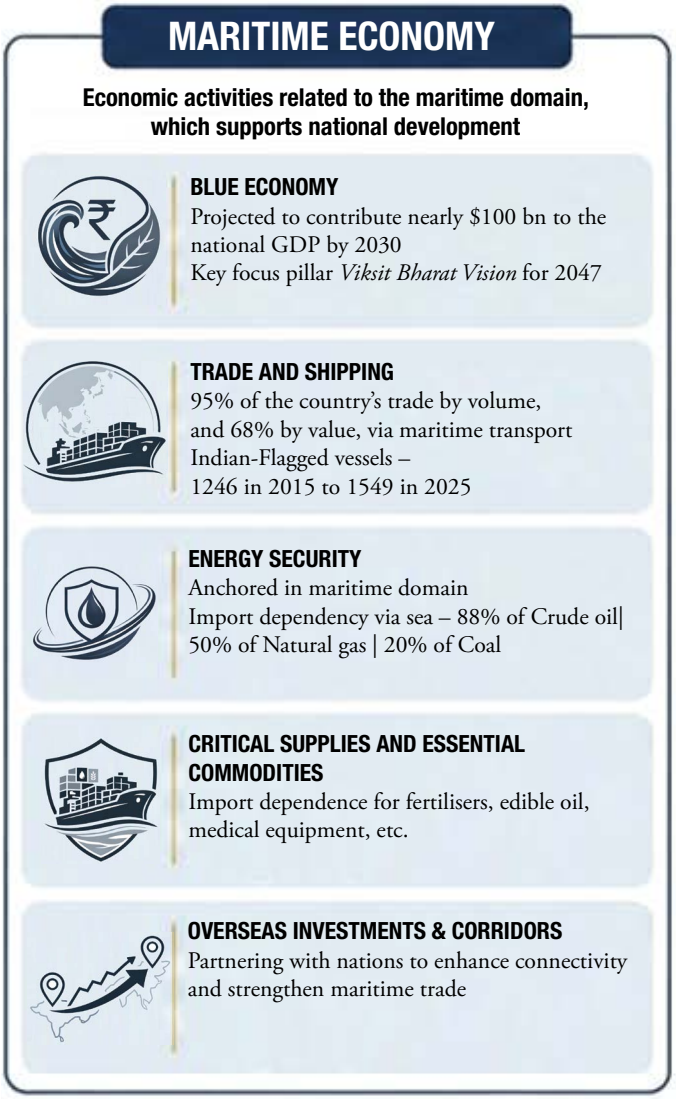


Figure 2.2: Maritime Economy

foreign bottoms — particularly for critical cargo, such as crude oil, of which nearly 88% is imported by sea — constitutes a strategic vulnerability, especially in scenarios of conflict or disruption, where foreign carriers may avoid Indian waters, decline Indian cargo, or impose prohibitive insurance premiums.

⚓ **Energy Security.** Energy security plays a vital role in national development and is fundamentally anchored in the maritime domain. The demand for energy is predominantly met through fossil fuels, which account for 88.2% of India's primary energy requirements. Of this, coal accounts for 59.3%; while oil and gas account for 28.1% and 6.5% respectively (2024 figures). India imports nearly 20% of its coal requirements, 88% of crude oil needs, and 50% of natural gas demand through maritime routes.[43] These figures underscore the centrality of the maritime domain for India's energy security.

⚓ **Critical Supplies and Essential Commodities.** Beyond energy, the maritime domain is the primary conduit for imports critical to India's food security, public health, and industrial capacity. India met 73% of its fertiliser requirements through domestic production in 2025. Yet, as the world's second-largest fertiliser consumer, India remained import-dependent for Muriate of Potash (MOP) and significantly reliant on overseas sources for Diammonium Phosphate (DAP).[44] Approximately 16 million tonnes of edible oil is imported annually by sea, with

domestic production meeting 44% of national demand.[45] India is also dependent on imports for approximately 60% of its medical device requirements, particularly high-end diagnostic and therapeutic equipment.[46] Periodic disruptions of traffic in the Red Sea and the Strait of Hormuz have exposed supply chain vulnerabilities, with rerouting adding up to 10-14 days of transit, and raising freight costs by 25-35%.[47] These dependencies underscore the centrality of maritime security in the uninterrupted flow of essential supplies and commodities

⚓ **Overseas Maritime Investments and Maritime Corridors.** India's overseas maritime investments and development of maritime corridors in partnership with other nations, represent a comprehensive approach to harnessing trade routes, enhancing regional connectivity and strengthening maritime trade.

- **Overseas Maritime Investments.** India's public sector overseas maritime investments span port operations and energy exploration across multiple regions. In the energy sector, India has presence in 45 projects across 21 countries (2024 figures), which would increase with India's growing energy needs.[48] India's private sector overseas port investments include Sri Lanka, Israel, Tanzania and Australia; and will expand in scale and scope, concomitant with India's economic growth.[49]

- **Maritime Corridors.** India's investments in maritime corridors, established in partnership with friendly nations, are aimed at harnessing the full potential of maritime connectivity, trade routes and blue economy opportunities, while reducing dependence on vulnerable choke points and accelerating port-led growth. The 5,600 nm *Chennai-Vladivostok Maritime Corridor*, operationalised in November 2024, reduces cargo transit time by 40% (to 24 days, from 40 days ex-Mumbai to St. Petersburg), enabling faster access to Russian hydrocarbons, coal and rare earths, while boosting exports of engineering goods and pharmaceuticals. It also diversifies India's energy supply chains and enhances its presence in the Russian Far East.[50] *The International North-South Transport Corridor (INSTC)*, a 7,200 km multimodal network, connecting India with Iran, the Caspian Sea, Russia and onward to Europe, reduces freight transit time by 30-40% compared to the Suez, securing India's access to Central Asian and Russian markets.[51] *India-Middle East-Europe Economic Corridor (IMEC)*, announced at the G20 Summit in 2023, aims to link western Indian ports with the UAE, Saudi Arabia, Israel and Europe, offering a strategic alternative to the Suez Canal, facilitating green hydrogen, digital and rail-maritime integration, and strengthening India's role in the Gulf-Europe trade.[52] As strategic arteries of trade and connectivity, these maritime corridors embody India's aspirations

for maritime-led progress, and would evolve, expand or refine over time, in alignment with broader geostrategic imperatives.

Marine Infrastructure. Marine infrastructure constitutes the backbone of India's ocean-driven growth, to include ports, shipyards, submarine cables and overseas research facilities, among others.

⚓ **Ports.** Ports are the primary enablers for India's maritime economy and trade, with 12 Central Government-owned major ports (with Galathea Bay and Vadhvan notified as two additional major ports) and approximately 217 other than major and intermediate (non-major) ports (2026 figures) forming the backbone of national logistics.[53] Under the flagship *Sagarmala Programme*, 839 projects, worth approximately $62 bn (₹5.79 lakh crore), are being implemented to promote port-led development and modernise capacity.[54] India's port performance has gained global standing, with nine ports ranked among the Top 100 ports in the World Bank's Container Port Performance Index 2023, reflecting improved efficiency and competitiveness.[55] In FY 2024-25, major ports handled 855 million tonnes of cargo, a growth of 4.3% over the previous year, and non-major ports handled 739 million tonnes with a growth of 2.2%, propelling India towards its long-term target of 10,000 Million Tonnes Per Annum (MTPA) port capacity by 2047.[56]

⚓ **Shipyards.** India's shipbuilding base of 79 shipyards is being revitalised through legal, policy and process reforms, including cabinet approval of $7.4 bn (₹69,725 crore) package for Shipbuilding Financial Assistance Scheme (SBFAS), Maritime Development Fund (MDF), and Shipbuilding Development Scheme (SbDS).[57] The overall package is expected to unlock 4.5 million Gross Tonnage of shipbuilding capacity to position India amongst the world's top five shipbuilding nations by 2047.[58]

⚓ **Submarine Cables.** Submarine cables constitute vital infrastructure in global digital and economic resilience, carrying more than 95% intercontinental internet and voice communications.[59] As India aspires to consolidate its position as a global hub for digital services through Global Capability Centres (GCCs) and technology-driven trade, the security, redundancy and expansion of undersea cable networks assume critical importance. Submarine cables not only sustain the flow of information for commerce, governance and national security, but also integrate India into the global digital economy, making them indispensable critical infrastructure.[60]

⚓ **Overseas Research Facilities.** India has established scientific presence in critical polar and oceanic regions through its overseas research facilities, including the *Bharati* and *Maitri* stations in Antarctica, and the *Himadri* station in Svalbard, Norway, within the Arctic. These facilities extend India's capacity to contribute to global research on climate, oceans, and polar sciences, while providing strategic foothold in regions of growing geopolitical importance.

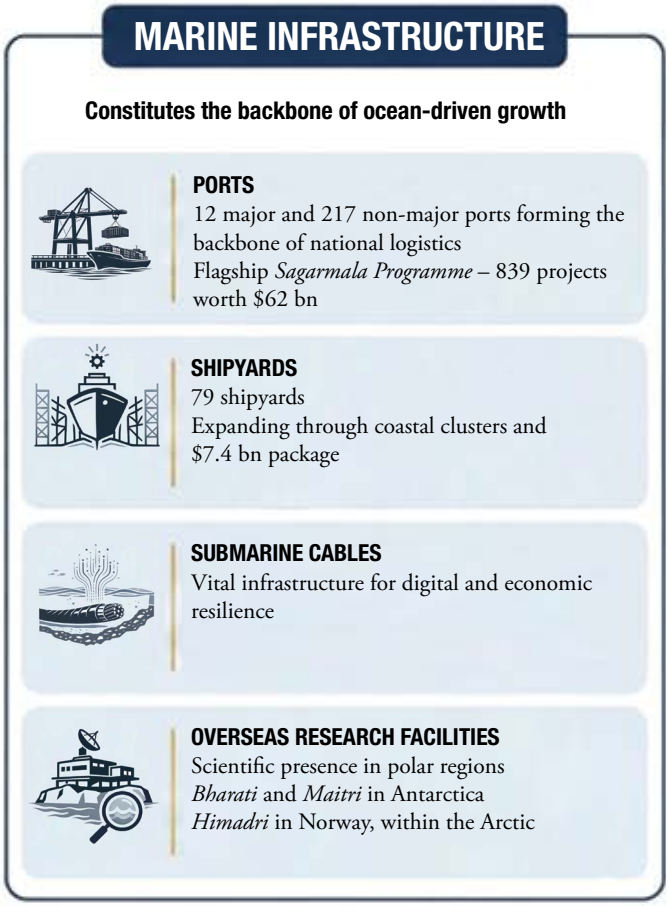


Figure 2.3: Marine Infrastructure

Maritime Security Imperatives

Building upon the foundational maritime security influences highlighted in the first section, the INMSS is also driven by several maritime security imperatives. These imperatives arise from the need to safeguard India's national maritime interests at all times, across a wide spectrum of threats and challenges. As these threats continue to evolve, the assessment of their sources and nature remains a continuous process. Such assessments are critical to determine *where, why* and *how* the Navy will be employed to safeguard national maritime interests. The broad range of evolving threats and challenges India faces are outlined in the succeeding paragraphs.

⚓ **State-based and State-related Threats.** State-based and state-related threats involve organised employment of military/ naval forces that harbour adversarial posture and inimical intent towards India. Hostile activities by such states, in terms of scope, scale and intensity, are potentially of a higher order. Such threats, however,

may also manifest through actions that undermine the rules-based maritime order, including activities such as exploration and survey activities in disputed areas; violations of International Maritime Boundary Line (IMBL); illegal operations in India's EEZ; employment of dual-use platforms and infrastructure; and sustained militarisation of the region. Increasingly, such challenges also manifest in the form of hybrid threats, where nations employ both state and non-state capabilities, such as proxies, maritime militias, cyber-attacks or deniable attacks at sea, to pursue strategic objectives, while avoiding overt escalation.

⚓ **Maritime Terrorism.** Maritime terrorism involves terrorist acts perpetrated by organisations or individuals, which exploit the maritime domain to conduct attacks at or from the sea. In the past few years, maritime terrorism has been amplified by advanced Commercial Off-The-Shelf (COTS) technologies, along with niche expertise and support provided by few state sponsors and radicalised agencies.

⚓ **Maritime Crimes and Illicit Activities.** Maritime crimes and illicit activities threaten maritime and coastal security, undermine economic interests, and exploit gaps in maritime governance. Few of the threats that India faces are outlined in the succeeding paragraphs.

- **Piracy and Armed Robbery at Sea.** Piracy occurs on the high seas[61] beyond jurisdiction of a state, involving illegal acts of violence or detention, or any act of depredation, committed for private ends and directed against a ship or its crew; whereas Armed Robbery occurs within a state's internal waters, archipelagic waters and territorial sea.[62] Pirates and armed robbers target maritime trade and, therefore, the economies of affected nations. Piracy also jeopardises the safety of Indian seafarers, which constitute a sizeable portion of global seafarers, as highlighted earlier. Piracy and armed robbery are most prevalent in areas with strong concentration of international shipping and choke points, such as Gulf of Aden, east coast of Africa, Gulf of Guinea and the region around the Straits of Malacca.

- **Trafficking/Smuggling.** Sea routes have been increasingly exploited by transnational criminal networks for movement of Narcotic Drugs and Psychotropic Substances (NDPS), Small Arms and Light Weapons (SALW), and, potentially, Weapons of Mass Destruction (WMD), as well as for human/ wildlife trafficking/ smuggling.[63] In particular, trafficking in narcotics remains a constant threat to India, with the 'Golden Crescent' to its west and 'Golden Triangle' to its east.[64] The vastness and largely ungoverned status of the maritime domain facilitate these crimes, placing a constant demand on maritime security agencies.

India's Maritime Security: Threats and Challenges

STATE-BASED & HYBRID THREATS

Direct State-Level Adversaries. Organised employment of military or naval forces at sea by nations hostile to India.

Undermining the Rules-Based Order. Involves violations of IMBL, illegal operations in India's EEZ, employment of dual-use platforms and infrastructure, and sustained militarisation of region.

Rise of Hybrid Threats. Nations employ state and non-state capabilities to pursue strategic objectives.

MARITIME TERRORISM

Attacks from and at sea. Involves terrorist acts to exploit the maritime domain to conduct attacks at or from the sea.

Enabled by Modern Technology and State Sponsors. Amplified by Commercial Off-The-Shelf technologies, along with support provided by State sponsors or radicalised agencies.

MARITIME CRIMES & ILLICIT ACTIVITIES

Piracy and Armed Robbery. Targets maritime trade.

Trafficking & Smuggling. Illicit movements at sea for trafficking/ smuggling of narcotics, arms, persons, WMDs and protected wildlife.

Irregular Migration. Unauthorised movement of persons by seas outside the regulatory frameworks of entry into, or exit from, a state.

IUU Fishing. Unlawful fishing threatening marine ecosystems, biodiversity, food security and coastal livelihood.

Maritime Resource Theft. Unlawful extraction of marine resources, such as oil, sand and seabed minerals.

Marine Pollution. Large-scale pollution, especially plastics, degrading marine ecosystems.

Dark Vessels and Shadow Fleets. Concealed vessels evading regulations.

MARITIME INCIDENTS & EMERGING THREATS

Maritime Incidents. Involves safety events at sea with implication on maritime security. E.g. fire, flooding, collisions, grounding, etc.

Emerging Threats. Contemporary developments in geopolitics, technology, economics, environmental impacts, etc. E.g. Climate Change.

Figure 2.4: India's Maritime Security: Threats and Challenges

- **Irregular Migration.** Irregular migration refers to the movement of persons outside the regulatory frameworks of entry into, or exit from, a state.[65] These migrations, voluntary or forced, manifest due to instability on land, resource limitations, lack of employment, etc. Seas are the preferred medium for irregular migration by individuals or organised syndicates. It poses significant challenges in terms of maritime security, stretching surveillance and creating vulnerabilities that can be exploited by transnational criminal networks.

- **Illegal, Unreported and Unregulated (IUU) Fishing.** IUU fishing disregards established international and national laws on conservation, jurisdiction and management of living marine resources.[66] It is a global issue which threatens ocean ecosystems and sustainable fishing. IUU fishing carries the risk of seriously damaging or even destroying living resources, marine environments and biodiversity, to the detriment of marine ecosystems and livelihood of coastal populace. IUU fishing affects India as it impacts food and related economic security, as well as the livelihood of the Indian fishing community.[67]

- **Maritime Resource Theft.** Apart from IUU fishing, the oceans face extensive illicit and unlawful extraction of resources. Global oil theft is valued at $133 bn annually, equivalent to 5–7% of the global crude oil and petroleum fuel markets.[68] Sand — the second most exploited natural resource after water — is illegally traded at an estimated $200–350 bn per year.[69] Illegal seabed mineral prospecting and unauthorised exploitation of offshore resources represent emerging dimensions of resource theft. This has also come into global focus with the entry into force of the Biodiversity Beyond National Jurisdiction (BBNJ) Agreement in January 2026, which establishes a binding legal framework for conservation and sustainable use of marine biodiversity in Areas Beyond National Jurisdiction (ABNJ).[70]

- **Marine Pollution.** The marine environment faces significant and growing pollution, with over 11 million tonnes of plastic entering the oceans annually, constituting 80% of all marine debris. An estimated 75–199 million tonnes of plastic resides in the world's oceans, threatening marine biodiversity, food chains, and the livelihoods of coastal communities. Without meaningful action, plastic emissions into aquatic ecosystems are projected to nearly triple by 2040.[71]

- **Dark Vessels and Shadow Fleets.** The International Maritime Organization (IMO) defines "dark" or "shadow" fleets as vessels engaged in illegal operations for the purposes of circumventing sanctions, evading compliance with safety or environmental regulations, avoiding insurance costs, or engaging in other illegal activities — including intentionally disabling or manipulating Automatic

Identification System (AIS) transponders to avoid detection.[72] Shadow fleets have grown exponentially, from 97 vessels in 2022 to approximately 3,313 vessels reported in 2025, accounting for approximately 18.5% of total global tanker capacity.[73] Operating largely outside established insurance, safety, and regulatory frameworks, these vessels are estimated to trade $100 bn worth of crude oil annually.[74] Exploited for sanctions evasion, smuggling, narcotics trafficking, and illicit transfers of arms and contraband, dark vessels represent a potential instrument of maritime crime and grey zone activity, posing challenges to MDA, law enforcement and the integrity of the rules-based maritime order.

⚓ **Maritime Incidents.** Maritime incidents involve safety events at sea/ ashore with implications on maritime security. These involve occurrences such as fire, flooding, collisions, grounding, etc.[75]

⚓ **Emerging and Other Threats.** Emerging threats involve contemporary global, regional or domestic developments in geopolitics, technology, economics, environmental impacts, etc., which have implications on maritime security. Climate change has emerged as a critical environmental concern impacting maritime security. It includes impact on oceanic living resources due to changes in the levels of salinity and acidity, resulting in potential inundation of low-lying coastal areas, and the loss of national territory, which can force migration.

Areas of Maritime Interest

Having defined the influences and imperatives that shape the INMSS, it is essential to outline the geographical contours within which such influences and imperatives manifest, and, therefore, need to be monitored, preserved and protected. India's areas of maritime interest are categorised as *Primary* and *Secondary* areas. Prior to such classification, it is important to clarify that the Indian Navy employs two distinct constructs: *Area of Maritime Interest (AoI)* and *Area of Responsibility (AoR)*, to divide geographical areas. AoI is the region where activities and developments influence and affect India's maritime interests; whereas AoR is the geographical area associated with a Combatant Command within which a Combatant Commander has been delegated the authority to plan and conduct operations.[76] The AoI does not automatically imply concomitant response capability, but, instead, signals an intent to undertake sustained monitoring of such areas for trends and events, to enable scaling of response in line with broader national imperatives, as and when needed.

Primary and Secondary AoI are based on their relative degree of importance and impact. This classification primarily enables prioritisation of the Indian Navy's efforts in terms of scale, scope and rate.

Primary Areas of Maritime Interest

India's primary areas of maritime interest include the following:-

- India's coastal areas and maritime zones, including coastline, islands, internal waters, territorial waters, contiguous zone, EEZ and continental shelf.

- The Arabian Sea, Bay of Bengal, Andaman Sea, Laccadives Sea and their littoral regions.

- The Persian Gulf region and its littoral.

- The Gulf of Oman, Gulf of Aden, Red Sea and their littoral regions.

- South-west Indian Ocean, including IOR island nations therein and east coast of Africa littoral regions.

- The choke points leading to, from and across the Indian Ocean, including the six degree channel; Eight/ nine-degree channels; Straits of Hormuz, Bab-el-Mandeb, Malacca, Singapore, Sunda, Lombok, and Ombai-Wetar; the Mozambique Channel; and the Cape of Good Hope and their littoral regions.

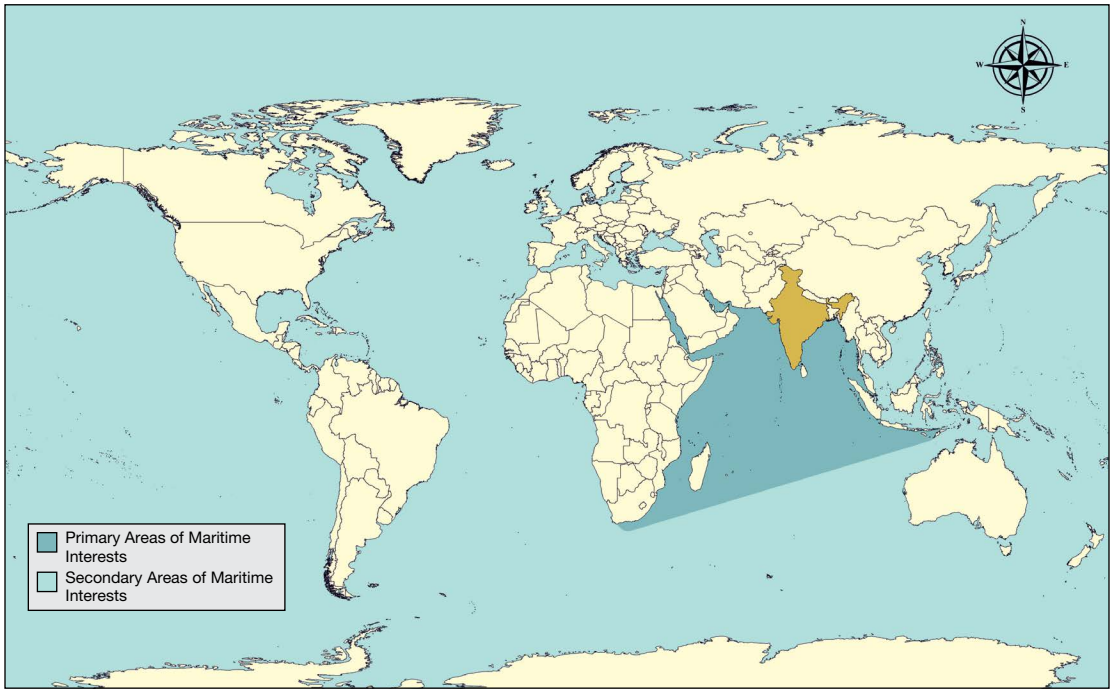
- Other areas encompassing our SLOCs ISLs, and vital energy and resource interests.

Secondary Areas of Maritime Interest

The preceding sections have amply demonstrated that India's growth will increasingly be enabled through the seas, with the maritime domain assuming a central role in driving national prosperity. As India's economic and strategic engagements across the oceans continue to expand, the range and intensity of external influences affecting national interests are expected to grow significantly in the coming years.

Consequently, the Indian Navy will be required to operate wherever India's national interests lie, across an expanding geographical canvas. This widening scope of maritime interests necessitates the development of a global outlook. As a result, the entire global maritime domain, beyond the Primary Area of Maritime Interest, is designated as the Secondary Area of Maritime Interest.

AoI is defined as the region where activities and developments influence and affect India's maritime interests. Primary and Secondary AoI are based on their relative degree of importance and impact.



Map 2.2 : India's Primary and Secondary Areas of Maritime Interest

Conclusion

The *Ends* of strategy were defined in Chapter 1. This chapter has focussed on key influences and imperatives that shape the formulation of an overarching strategy. The analysis of India's maritime geography, maritime outlook and maritime leverages *(what needs to be protected?)*, as also the evolving array of threats and challenges to these maritime interests, collectively inform maritime security decision-making. It helps define the *Primary* and *Secondary* Areas of Maritime Interests, and to contextualise critical geographical areas that demand sustained attention. Together, these influences and imperatives provide essential linkages and form the basis of interplay between defined *Means* and *Ways* as articulated in the subsequent chapters. ⚓

Means

⚓ *Means represent the aggregate of tangible (naval platforms, weapon systems, infrastructure) and intangible resources (technology, human resource, intelligence systems, and partnerships) that are available to execute a strategy*





3

Enablers



Chapter Outline

- Outlines *Means* as an important link between *Ends* and *Ways*.
- Highlights *Enablers* that perform the role of *Means* necessary to execute Indian Navy's overall strategy.
- Elaborates the significance of these *enablers*, followed by describing its existing constituents.

Overview

Introduction

The preceding chapters articulated the MSOs (*Ends* of strategy) in Chapter 1, followed by maritime security *influences* and *imperatives* that guide the formulation of Strategy in Chapter 2. Building on these foundations, the chapter on *Enablers*, which essentially constitute *Means*, highlights the key resources and attributes that are contributory to the execution of the five core strategies outlined in the subsequent chapters.

Each *strategy (way)* harnesses and exploits enablers in varying degrees to achieve its intended outcomes. The manner in which a strategy utilises a specific enabler may differ, depending on its objectives, prevailing environment and adversarial context. Some enablers may be crucial in one scenario, while less significant in another, but collectively, form the foundations through which naval strategy is planned and executed. The *'Drivers for Reviewing the INMSS'*, especially technological developments, described in Chapter 1, provide the necessary underpinnings in the development, as well as exploitation of these enablers. While there would, invariably, be several other enablers required for execution of strategies, seven critical enablers have been identified and elaborated in this chapter.

⚓ **Capability Development.** Indian Navy's strategy is anchored in its combat capability realised through a comprehensive *capability development* framework, focussed on building and enhancing the Navy's physical, human and intellectual components.

⚓ **Networks.** Robust *networks* constitute the foundations for organisational efficiency ashore, and operational effectiveness at sea, as they enable deployed naval forces and units to generate cumulative and synchronised effects.

⚓ **Maritime Domain Awareness (MDA).** *Maritime Domain Awareness* provides timely information and accurate understanding of the maritime environment, enabling early threat detection, comprehensive assessment and informed decision-making.

⚓ **Strategic Communication (STRATCOM) and Information Warfare (IW).** STRATCOM enables cognitive and informational advantage to further national interests and security objectives. The purpose of IW is to achieve information-dominance. Together, STRATCOM and IW shape the information environment and enable decision superiority.

⚓ **Maintenance.** Effective *maintenance* ensures sustained platform availability, mission readiness and materiel reliability to undertake prolonged deployments and operations at sea.

⚓ **Op Logistics.** Responsive *Op Logistics* underpins the Navy's ability to sustain operations and project power through the seas.

⚓ **Tri-Service Jointness & Integration and Whole-of-Nation Approach.** *Jointness and integration* optimise capabilities across the Defence Forces for a decisive operational advantage. A whole-of-nation approach ensures that all elements of national power are harmonised to deliver a coherent and unified response across the spectrum of maritime challenges.

Capability Development

Significance of Capability Development

Naval Combat Capability. *'Capability'* in respect of naval forces, refers to their ability to achieve *specified strategic, operational and tactical effects* under defined conditions.

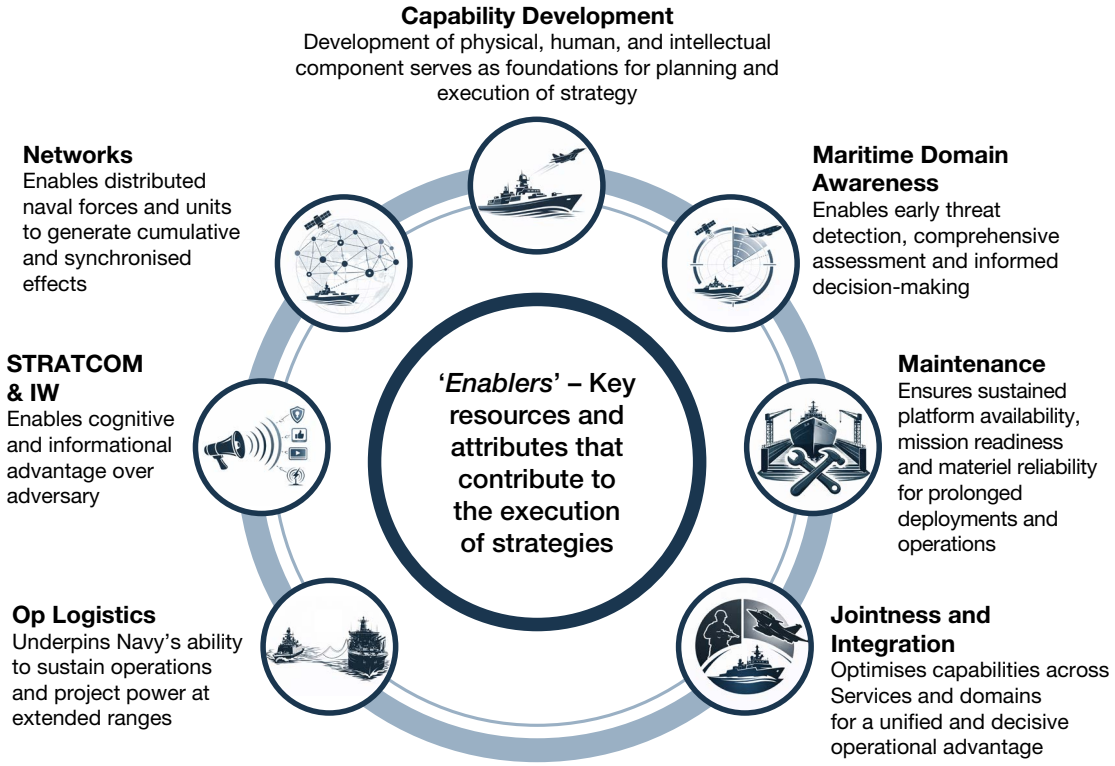


Figure 3.1: Core Enablers



Naval combat power is an integrated outcome of three interrelated components – *physical*, *human* and *intellectual*.

Strategy and *capability* continually shape each other in a cycle of mutual evolution. As strategic objectives evolve with changing dynamics, naval capabilities must be developed to meet the ends of Strategy. Conversely, advances in technology and evolution of naval warfare often lead to revision of strategy to leverage enhanced capabilities and counter emerging threats. As stated in the IMD-2025, naval combat power is an integrated outcome of three interrelated components – *physical, human,* and *intellectual*.[77]

Indian Navy's Approach to Capability Development

⚓ **Physical Component.** The *physical* component encompasses force planning and materiel capacity, such as platforms, weapons, sensors and infrastructure that provide the tangible means to achieve the ends of strategy. Effective development of multi-domain capabilities at sea (surface, sub-surface, seabed), air, land, space, cyberspace and cognitive, including cross-domain integration, enables the Indian Navy to effectively employ combat power across the spectrum of conflict. The development of this physical component follows a *'Top Down – Capability Dominant and Mission Based Approach'*, which is an evolutionary process driven by continual assessment of: threats; rapidly changing dynamics of naval warfare; force/capability accretions by potential adversaries; prevailing geopolitical scenario; and technological advancements, among others. At the tri-Service level, the Integrated

Capability Development System (ICADS) process results in formulation of Integrated Capability Development Plan (ICDP) for the Defence Forces. The Indian Navy is further guided by Maritime Capability Perspective Plan (MCPP) and Maritime Infrastructure Perspective Plan (MIPP), as revised from time to time, for the development of its capabilities and infrastructure.[78]

⚓ **Human Component.** The *human* component encompasses a capable and motivated workforce, supported by leadership, training and an enabling organisational culture. Although cutting-edge technology is vital for modern naval forces, the cultivation of skilled personnel is equally essential to realise the full potential of available capability. Accordingly, recruiting the *right person* for the *right job*, and empowering them with training and sustained grooming remains central to developing a competent human resource. The *Human Capital Strategy* guides the development of a professional and motivated human resource base, with constant upgradation of expertise and warfighting skills, and their optimum employment.

⚓ **Intellectual Component.** The *intellectual* component refers to the cognitive foundations that determine how naval power is conceptualised, generated, structured and employed for ensuring maritime security. In essence, the *intellectual* component guides the *human* component to exploit the *physical* component towards achieving desired outcomes. The Service's *intellectual* foundations are enshrined in doctrines, strategy, concepts and plans across the strategic, operational and tactical levels, which are periodically refined with due consideration to the evolving threats, technological advances and the security environment. The development of *intellectual* component rests on robust Professional Military Education (PME), effective wargaming, comprehensive exercises, and an institutional culture that cultivates critical thinking and prioritises becoming a 'Learning Organisation'.[79]

Networks

Significance of Networks

Networks are pivotal to how naval forces and organisations are structured, deployed and sustained across dispersed theatres of operations. Their strategic significance lies in their ability to transform geographically separated platforms and forces into coherent operational systems capable of generating cumulative and synchronised effects at sea. A robust networking architecture underpins the development of Maritime Domain Awareness (explained in the next section), effective command and control, collaborative sensing and targeting, and cross-service, cross-domain integration. Overall, it enables naval forces to respond rapidly to fluid operational conditions. As naval operations



The Indian Navy has progressively developed a multi-sensor, multi-node MDA architecture that integrates coastal surveillance assets, indigenous technology and regional information sharing agreements, into a cohesive operational grid.

extend into increasingly contested information environments, developing secure, resilient, scalable and high-bandwidth networks between operational nodes, such as ships, submarines, aircraft, shore-based command centers, space-based assets and uncrewed systems also assume greater significance.

Indian Navy's Approach to Networks

The Indian Navy operates a multi-layer, cross-domain and cross-service network architecture that connects naval assets and coastal surveillance systems with national agencies and tri-Service command structures, as follows:-[80]

- **Naval Communication Network (NCN).** NCN envisages maintaining two separate networks for *operational information* and *ops support applications*, respectively.

- **National Command Control Communication and Intelligence Network.** The NC3I network facilitates exchange of operational information between nodal centres of the Indian Navy and Indian Coast Guard (ICG) for combating threats to coastal and offshore defence.

- **Defence Communication Network (DCN).** The DCN aims at creating a common communication framework between apex/ command/ area HQ levels of the Defence Forces, HQIDS and HQSFC.

Transition to Data Centric Warfare. Data centric warfare shifts focus from connecting and synchronising platforms, to exploiting data itself, to gain informational advantage. Artificial Intelligence/ Machine Learning (AI/ ML) driven analytics, and automation convert large volumes of maritime data into actionable intelligence at machine speed. This approach enables predictive assessments, autonomous cueing of sensors and faster decision options. The Indian Navy's networks are continually evolving to support data centric warfare to enable real-time targeting grade fusion of multi-source data, and accelerate decision-making cycle across distributed forces.

Maritime Domain Awareness

Significance of MDA

The International Maritime Organization (IMO) defines MDA as the "*effective understanding of anything associated with the maritime domain that could impact security, safety, the economy, or the marine environment.*"[81] In the context of the Indian Navy, the

The principal objective of Maritime Domain Awareness is to endeavour to achieve transparency across all dimensions relevant to the maritime domain – surface, sub-surface, air, seabed, space, electromagnetic and cognitive; and integrating awareness of all actors operating within it.

principal objective of MDA is to endeavour to achieve transparency across all dimensions relevant to the maritime domain - surface, sub-surface, air, seabed, space, cyberspace, electromagnetic and cognitive; and integrating awareness of all actors operating within it. Accordingly, MDA includes Underwater Domain Awareness (UDA), Seabed Domain Awareness, Air Domain Awareness, Space/ near Space Domain Awareness, among others. *Awareness* not only encompasses aggregation of data, but also includes understanding and deeper sense-making of the maritime space, towards timely and informed decision-making. At its core, MDA involves the systematic transformation of fragmented, localised surveillance inputs into a unified framework, accessible to, and actionable by, all relevant agencies and organisations. The ambit of MDA, thus, extends beyond traditional surveillance, to include predictive insights across the full spectrum of maritime operations. MDA is complemented by ISR, which provides directed and focussed collection of information to support operational decision-making; and Battle Damage Assessment (BDA), which evaluates the effects of force application to inform subsequent planning cycles.

Indian Navy's Approach to MDA

The Indian Navy has progressively developed a multi-sensor, multi-node MDA architecture that integrates coastal surveillance assets, indigenous technology and regional information sharing agreements, into a cohesive operational grid.

⚓ **Operational MDA.** Operational MDA forms the primary layer for decision support architecture that underpins naval and joint operations. It involves generation of a dynamic Common Operational Picture (COP) through integration of naval sensors, platforms, surveillance assets and classified networks; in addition to external sources, such as Merchant Ship Information System (MSIS), Integrated Air Command and Control System (IACCS), etc. In addition, Space-based Surveillance (SBS) provides wide-area and localised MDA through Synthetic Aperture Radar (SAR), electro-optical imaging, electronic intelligence, communications monitoring, and tracking of maritime activity across the Navy's areas of interest.

⚓ **National MDA.** The Information Management and Analysis Centre (IMAC) at Gurugram is the nodal fusion centre of the National Command Control Communication and Intelligence Network (NC3I) that constitutes the backbone of India's coastal surveillance and MDA framework. IMAC aggregates data from a multitude of sources: chain of coastal radars and electro-optical sensors; nationwide network of coastal Automatic Identification System (AIS) receivers; Space-based AIS, Long Range Identification and Tracking (LRIT) system; White Shipping Information Exchange (WSIE) agreements; and Vessel and Air Traffic Management Systems (VATMS). The centre would be upgraded to the multi-agency National Maritime Domain Awareness (NMDA) Centre, integrating data from national agencies involved in maritime security. The NMDA project envisions a whole-of-government approach administered by the Indian Navy and staffed by representatives of key stakeholders towards development of MDA.

⚓ **Regional MDA.** While IMAC/ NMDA focus on India's national picture, the Information Fusion Centre – Indian Ocean Region (IFC-IOR) extends India's MDA efforts to the regional and international space. IFC-IOR acts as a maritime information sharing hub with partners across the Indian Ocean Region and beyond. The centre liaises with partner countries' navies and maritime agencies and hosts International Liaison Officers (ILOs) from many of these nations, on site, in Gurugram. The core function of IFC-IOR is to collate, analyse and exchange maritime security information with FFCs through a collaborative framework.

⚓ **International Frameworks.** Beyond the IOR, India is also a participant in emerging multinational frameworks for MDA. The Indo-Pacific Partnership for Maritime Domain Awareness (IPMDA) under the Quadrilateral Security Dialogue (QSD) is aimed at providing integrated, near real-time maritime domain data to regions across the Indo-Pacific.

Underwater Domain Awareness. UDA pertains to developing seamless operational picture of the undersea domain, including all natural features/ objects and man-made entities operating therein.

Space Operations. The space domain is critical for MDA, providing essential capabilities for ISR, navigation, communications and Network Centric Operation (NCO). Towards leveraging India's integrated space capabilities, the Indian Navy coordinates with the Defence Space Agency (DSA), the central organisation responsible for military space capability development and military space operations.

Strategic Communication and Information Warfare

Significance of Strategic Communication and Information Warfare

The *cognitive domain* has emerged as a distinct domain of warfare, where the contest for influence over perceptions, narratives and decision-making can, potentially, create an impact as decisive as the physical domain. As articulated in the Joint Doctrine for Multidomain Operations, "*gaining cognitive domain advantage over the adversary is instrumental across the spectrum of conflict – from peace to conflict – since the adversary must ultimately yield or bend to our will, which is inherently a cognitive process.*"[82] The weaponisation of social media, disinformation campaigns and advanced cyber tools have expanded the battlespace into the information and psychological dimensions, enabling adversaries to achieve specific strategic effects without kinetic action, often below the threshold of armed conflict. In this context, *Strategic Communication* and *Information Warfare* constitute the principal instruments through which the Indian Navy seeks to retain information superiority, counter adversarial influence and maintain cognitive ascendancy in the maritime domain. The succeeding paragraphs outline the Navy's approach to STRATCOM and IW as integral components of maritime operations across the conflict continuum.

Strategic Communication. STRATCOM can be defined as "*the transmission of integrated and coordinated themes, messages and actions that advance national interests and policies through synchronised efforts of all involved agencies.*"

Information Warfare. IW is defined as "*any action taken to deny, exploit, corrupt or destroy the enemy's information and its functions, while protecting against those actions and exploiting own military information functions.*" The purpose of IW is to attain information advantage over the adversary, in order to establish information-dominance, and control adversary's actions to suit naval plans in pursuance of nation objectives.

Interplay between Strategic Communication and Information Operations

Globally, STRATCOM extends beyond IW and functions as a whole-of-government approach, integrating military, diplomatic, economic and informational instruments

STRATCOM and IW constitute the principal instruments through which the Indian Navy seeks to retain information superiority, counter adversarial influence and maintain cognitive ascendancy in the maritime domain.

of national power. While IW focusses on achieving information dominance in military and security contexts, STRATCOM provides the overarching communication strategy ensuring that military messaging remains consistent with national policy.

Components of Strategic Communication and IW

Strategic Communication. Components of STRATCOM include Information Operations (IO), Perception Management (PM), Public Diplomacy (PD) and Public Affairs (PA).

Information Warfare. IW includes the sub-domains of Operations Security (OPSEC) and Military Deception (MILDEC), Psychological Operations (PSYOPS), Electronic Warfare (EW) and Cyber Warfare (CyW). Among these, CyW is aimed at disrupting the adversary's systems and infrastructure, while protecting own forces against those actions and exploiting own military information functions. CyW includes:-

- Cyber Defence Operations (CDFO). CDFO include actions taken to detect, respond, recover and remediate a cyber-threat by adopting a cyber-defence posture that prevents recurrence of a similar compromise.

- Cyber Deterrence Operations (CDTO). CDTO include actions in cyberspace which creates effects of deception, denial, degradation, disruption and/or destruction of an adversary.

- Cyber Enabled Operations. Cyber Enabled Operations include *Cyber Enabled Influence Operations* to use information to confuse, mislead and influence the choices and decisions of an adversary; *Cyber ISR* to understand the digital environment (friendly, neutral, adversary); and *Cyber Anti-Forensics* to investigate cybercrimes and collect digital evidence and attribution.[83]

Maintenance

Significance of Maintenance

Effective maintenance plays a crucial role in the sustenance of naval operations. The evolving character of modern warfare necessitates deployment of platforms at shorter notices, as well as for prolonged durations. Reliability of machinery, sustained peak performance of weapons and sensors, and ability to undertake swift battle damage repairs, assume greater significance. In order to sustain such deployments and maintain Indian Navy's operational edge, a robust maintenance philosophy ensures combat efficiency, equipment reliability and platform longevity.



Indian Navy's robust maintenance philosophy ensures combat efficiency, equipment reliability and platform longevity.

Indian Navy's Approach to Maintenance

Primary Shore-Based Support Organisations. Naval Dockyards, Naval Ship Repair Yard (NSRYs), Fleet Maintenance Unit (FMUs), Fleet Support Units (FSUs), Afloat Support Teams (ASTs), Base Support Facilities (BSF) and Naval Aircraft Yards (NAYs) are the primary shore based support organisations responsible for repairs and maintenance of naval assets, including ships, submarines and aircraft. Public Sector Undertakings (PSUs), Defence Public Sector Undertakings (DPSUs), equipment Original Equipment Manufacturer (OEMs), and private shipyards, further, augment repair and maintenance capabilities of the Indian Navy to enable swift and quality repairs

Forward Maintenance Infrastructure. Forward and overseas maintenance facilities and repair bases strengthen maintenance infrastructure to enable unhindered naval operations in distant areas. These operations are also strengthened through maintenance agreements with FFCs for mutual repair and maintenance support. Operational Readiness Facility Containers (ORFCs) enable extended repair support to platforms at sea or at Forward Operating Bases (FOBs), through deployed FMU/ OEM workforce.

Scheduled Maintenance. Timely completion of refits, Assisted Maintenance Periods (AMPs), calendar/ event-based routines, etc. are of utmost importance,

towards ensuring operational availability of platforms. Indian Navy's multi-tiered approach for maintenance is ensured through preventive, predictive and corrective maintenance. The Navy pursues various courses of action to enable sustained operational availability and combat readiness:-

- Predictive condition monitoring through AI and data driven maintenance models to predict defects and allow pre-emptive actions, so as to enhance systems' reliability.

- Benchmarking performance of new induction platforms and ships in commission, to facilitate objective assessment of their operational readiness.

- Impetus on modernisation of dockyards and NSRYs for automation and upgradation of facilities, to fulfil requirements of force maintenance.

- Optimising operational-cum-refit cycles of ships and submarines, to ensure longer force availability and lower downtime.

- Identification and induction of equipment with high Mean Time Between Failures (MTBF) and low life-cycle costs.

- Harnessing captive expertise and equipment specific repair infrastructure, augmented by OEM support and industry partners, where feasible.

- Incorporating Total Quality Management and strengthening QC processes, to ensure reliability of equipment.

- Proactive obsolescence management towards maintaining performance of legacy weapon systems and sensors.

- Formulating and executing a roadmap towards replacement of legacy foreign origin systems with advanced indigenous weapon systems and sensors.

Spares Support. Timely and accurate availability of spares and equipment for undertaking maintenance is a key priority. Indigenisation of spares and components; impetus to self-reliance; and strengthening of domestic supply chains, further, support availability of spares, especially during conflict.

Principal Maintenance Officers Committee (PMOC). The PMOC under the COSC coordinates maintenance support across the three Defence Forces. The committee plays a crucial role in ensuring jointness and synergy in the maintenance

of common equipment and infrastructure. The aim is to optimise resource utilisation and enhance operational readiness by streamlining maintenance procedures and sharing best practices.[84]

Effective maintenance and efficient refit management, remain critical to readiness, reliability and sustenance of the physical component of maritime capability outlined earlier. As naval platforms evolve and technology accelerates, the Indian Navy will continue to optimise maintenance cycles to ensure enhanced operational availability of its assets.

Op Logistics

Significance of Op Logistics

Sustenance is one of the principles of war and a key attribute of maritime forces as outlined in the IMD-2025.[85] Sustenance alludes to the provision of supplies, services and support necessary to ensure warfighting capability of naval forces over time. In



Underway Replenishment at Sea

the maritime domain, where platforms operate in areas distant from shore-based infrastructure, effective sustenance is indispensable to naval operations. *Operational Logistics (Op Log)* forms the core mechanism through which sustenance is planned, organised and delivered.

Op Logistics is the process by which resources are mobilised and directed to support operational platforms and units in the accomplishment of military ends. Efficiency of naval operations hinges on responsive logistics that is guided by delivery of *right item*, at the *right place*, at the *right time*. Conflicts have repeatedly demonstrated Op Logistics to be a crucial enabler for unhindered and sustained operations, as also to meet surge requirements during NWNP or conflict situations.

Indian Navy's Approach to Op Logistics

Stocking. Logistics organisations, such as Material Organisations (MOs), Naval Store Depots (NSDs), Base Victualling Yards (BVYs), Base Logistics Organisations (BLOs), Naval Armament Depots (NADs), Missile Technical Positions (MTPs), Weapon Equipment Depots (WEDs) and Armed Forces Medical Stores Depots (AFMSDs), provide logistics support for naval operations. Through forecasting and inventory management, these organisations sustain operational requirements of units, thereby ensuring combat readiness.

Fleet Support Ship (FSS). FSSs enable extended deployments of assets through replenishment of fuel/ critical spares/ ammunition/ armament, thereby reducing Operational Turn Round (OTR) requirements in harbour. FSSs also provide other support, such as maintenance facilities, medical support and other such services, to augment existing fleet capabilities at sea.

Integration of Ships Taken Up From Trade (STUFT). STUFT play a vital role in providing logistics support at sea, and act as secondary maritime transport during contingencies. Integration of STUFT in naval operations is a critical endeavour in expanding the Indian Navy's maritime logistics capability.

Indigenisation. The Indian Navy is focussed on self-reliance to mitigate possible disruptions in logistics supply chain during conflicts. Indigenisation efforts prioritise manufacturing over assembly, to enable scaling and rapid availability, especially during prolonged conflicts.

Integrated Logistics Framework. A tri-Service integrated logistics framework is essential for coordinating various logistics functions, including procurement, transportation, warehousing and distribution. The establishment of Joint Logistics

Op Logistics is the process by which resources are mobilised to support operational platforms to accomplish military ends.

Nodes (JLN) supports common inventory management, shared warehousing, and overcoming inadvertent duplication of op support efforts. Additionally, Joint Operations Logistics Committee (JOLC) under the HQIDS develops policies and mechanisms for efficient joint logistics operations.[86] Integrating IAF transport assets and national carriers into logistics operations also enhances flexibility and reach of supply chains.

Partnership with OEMs. Identifying and promoting Indian industry in vital areas of technology, and nurturing domestic defence manufacturers through partnerships is a key enabler to support naval operations at scale. This approach also ensures surge capability to maintain steady supply of military hardware, spare parts, ordnance and components for war-fighting.

Transnational Delivery Mechanism. Logistics support is extended overseas to deliver critical stores/ spares – through naval assets or through freight-forwarders – for units on long range deployment.

Integration with Whole-of-Nation Efforts. Naval Op Logistics is being integrated with national schemes, such as *PM Gati Shakti (PMGS)*, National Logistic Policy (NLP), *Sagarmala*, etc., in concert with relevant ministries (MoRTH, MoR, MoCA, DoT & MoPSW) to extend last mile access to naval bases, as also to provide naval forces with access to civil infrastructure. Complementing these infrastructure initiatives, policy and legislative frameworks that enable requisitioning and prioritised use of Indian-flagged merchant vessels during conflict or crises, pooling of national defence research and development capacity, and streamlined civil-military coordination protocols for port access and logistics throughput, are being developed to strengthen the operational logistics architecture. While these steps are ongoing and continually evolving, the overall impetus is on progressive integration with national supply chains, to enable deeper resilience.

Operational Logistics will remain crucial to maritime power as naval forces operate at extended ranges and in contested multi-domain environments. The need to sustain naval forces in prolonged, as well as high-intensity operations, necessitates impetus on integrated planning across commands; coordination with joint and civil maritime infrastructure; and adoption of predictive and data-driven sustainment processes.



MiG-29K undertaking Air to Air Refuelling with IAF IL-78.

Tri-Service Jointness & Integration and Whole-of-Nation Approach

Tri-Service jointness and integration, along with a coordinated, whole-of-nation approach, represent fundamental strategic enablers, which amplify the Indian Navy's warfighting effectiveness, optimise resource utilisation, accelerate decision-making and enhance deterrence against adversaries.

Indian Navy's Approach to Jointness and Integration

Significance of Jointness and Integration. *Jointness* is a concept and mindset that prioritises interoperability and coordination across the Defence Forces. It includes organisational and operational principles, such as unified, integrated or synchronised command structures, along with associated coordination mechanisms, that underpin *joint planning* and *joint application of force*. *Integration* is the practical element supporting jointness that synergises the unique capabilities of each Service — assets, capabilities and human resource — through relevant protocols, processes and procedures, to deliver unified effects. In short, *jointness* is the engine, whilst *integration* is the delivery end of jointness.

Comprehensive maritime security demands integration of efforts and resources from diverse stakeholders towards accomplishment of national objectives.

Advancing Jointness and Integration. Jointness and integration aim to achieve synergised outcomes across multiple domains, through unified planning, shared awareness and joint execution. The transition of the Indian Defence Forces towards jointness is ongoing and involves institutional reform, standardisation of interoperability protocols, as also development of comprehensive joint doctrines and operational exercise frameworks. Creation of the Department of Military Affairs; institution of the post of the CDS and Secretary DMA; creation of Defence Cyber and Space agencies and Armed Forces Special Operations Division; along with the prospective creation of Conventional Missile Force, Defence Geospatial Agency, Data Force, Drone Force, and Cognitive Warfare Action Force, are steps in this direction, which will continue to be strengthened in the future.[87] The establishment of an integrated Maritime Theatre Command (MTC) would represent a natural progression of these reforms, providing a unified structure for planning and application of maritime power across all domains in India's areas of maritime interest.

Aligning with Integrated Structures. The Indian Navy advances jointness and integration by institutionalising joint planning and aligning maritime capabilities and command structures with tri-Service frameworks. The formulation of common operational concepts and doctrines, their incorporation in professional training curriculum, and validation through joint/ tri-Service exercises, wargames and simulation further strengthens jointness. Additionally, cross-attachments, regular inter-Service coordination and joint training structures enable the Indian Navy to operate seamlessly with other Defence Forces. These efforts are complemented by aligning force planning, capability development and procurement priorities with joint requirements, thereby optimising national resources, adopting best practices and enhancing warfighting effectiveness.

Indian Navy's Alignment with Whole-of-Nation Approach

Aligning with Whole-of-Nation Approach. While jointness encompasses coordination amongst the three Defence Forces, warfighting is, fundamentally, a whole-of-nation effort, and military operations cannot succeed in isolation from diplomatic initiatives, economic instruments, national defence industrial capacity, national cyber defence capabilities, multi-agency intelligence frameworks and inter-agency/ inter-ministerial coordination, among others. In the Indian context, comprehensive maritime



Combat Divers advancing on the beach in high state of alert

security demands integration among the broader constellation of national ministries/ departments/ agencies, such as Ministry of External Affairs, Ministry of Shipping, Department of Fisheries, Indian Coast Guard, and other maritime stakeholders, including port authorities and merchant marine.

Importantly, a whole-of-nation approach extends beyond governmental and institutional coordination, to encompass coastal communities, the merchant marine, fishing communities, the maritime industry, port operators, seafarers, and the private sector – all of whom are integral to India's maritime security and resilience. The creation of the post of the NMSC within the NSCS, as highlighted earlier, institutionalises this approach in the maritime domain, providing a unified coordination and policy formulation mechanism across defence, shipping, fisheries, home affairs, regulatory, and developmental agencies with maritime equities, among several others. The emerging paradigm of civil-military integration in the maritime domain – encompassing policy mechanisms to harness merchant shipping, shipbuilding capacity, port infrastructure, seafarer expertise, and private sector technological capabilities for national defence – is expected to progressively mature during the tenancy of this document. This will strengthen comprehensive maritime security, in which the Indian Navy is a key stakeholder and contributor. A whole-of-nation approach is also reflected in the various mandates that the Indian Navy has been entrusted with, including overall responsibility of maritime security of the nation, and is articulated within this document through specific sub-strategies, that outline the Navy's deeper interaction and integration with various stakeholders based on the relevant MSO.

Conclusion

The *Enablers* outlined in this chapter constitute the essential *Means* that would be harnessed and exploited by the *Ways* of strategy. By aligning capabilities, resources, institutional processes and support systems with the MSOs, these *enablers* ensure that the five core strategies, elaborated in the subsequent chapters, are executable, adaptable and sustainable across the spectrum of conflict. ⚓

Ways

⚓ *Ways outline the plans of action or broad guidelines for the utilisation of the Indian Navy towards attainment of specified Maritime Security Objectives.*





⚓ Chapter 4 - Strategy to Shape a Favourable Maritime Environment

⚓ Chapter 5 - Strategy for Security of Coastal and Offshore Interests

⚓ Chapter 6 - Strategy to Deter Potential Adversaries

⚓ Chapter 7 - Strategy to Prevail in Situations below Threshold of Conflict

⚓ Chapter 8 - Strategy to Attain National Objectives during Conflict

4 Strategy to Shape a Favourable Maritime Environment



Maritime Security Objectives addressed

⚓ Shape a favourable maritime environment to enhance India's maritime security.

⚓ Extend support in national/ international humanitarian situations and Out of Area Contingencies.

Overview

Introduction

The Indian Navy plays a vital role in shaping a favourable maritime environment for safeguarding India's global and regional security interests and facilitating unhindered economic development. In addition, the Navy actively promotes goodwill through humanitarian missions, and amplifies India's image through maritime security operations and foreign cooperation initiatives. Indian Navy's efforts to enhance maritime security in the region, mutually benefits India and IOR littoral nations, as also contributes to wider stability, by ensuring the security of shared maritime commons. Through this strategy, the Indian Navy also seeks to deter potential adversaries, whose actions may challenge India's national interests, now, or in the future.

The term *maritime environment* in this strategy refers to the multi-dimensional maritime space extending into and beyond the Maritime Zones of India, to India's areas of maritime interest. A *Favourable Maritime Environment*, therefore, refers to a condition of security and stability that promotes India's national interests and maritime security objectives with minimal resistance or threat.

The Indian Navy has been at the forefront of national maritime military engagements and diplomacy. *SAGAR* initiative, followed by *MAHASAGAR* vision, reflects India's evolving approach to regional and global maritime engagement and outreach, with an impetus to using the seas as a catalyst and conduit for shared prosperity and collective security.[88]

Core Enablers

The *Enablers* for INMSS were examined in Chapter 3. As outlined, each strategy harnesses and exploits these enablers to varying degrees, to realise the Maritime Security Objectives. The table below outlines specific attributes or features of each core enabler that are particularly relevant to this strategy and merit an explicit mention. Specific enablers relevant to the *'Strategy to Shape a Favourable Maritime Environment'* are outlined in Table 4.1.

A *Favourable Maritime Environment* refers to a condition of security and stability that promotes India's national interests and maritime security objectives with minimal resistance or threat.

Table 4.1: Core Enablers and their Attributes

Core Enabler	Specific Attributes for Shaping a Favourable Maritime Environment
Capability Development	**Capacity Building/ Capability Enhancement** ⚓ Gifting/ leasing/ Line of Credit support for assets and platforms to FFCs. ⚓ Providing training and professional development to maritime forces in IOR. **Collaborative/ Constructive Engagements** ⚓ Establishing multilateral naval forums (MILAN, IONS, GMC, etc) and collaboration through information sharing mechanisms to coordinate and strengthen regional maritime security. ⚓ Conducting regular bilateral exercises and port visits to strengthen partnerships.
Networks	⚓ Developing operational data exchange architecture and hardware nodes for op coordination and shared MDA.
MDA	⚓ Partnering with IOR nations for regional MDA through IFC-IOR. ⚓ Developing coastal surveillance networks for FFCs to enhance MDA and deter illicit activity.
STRATCOM and IW	⚓ Participating in regional discourse on maritime security.
Maintenance	⚓ Undertaking refits and providing repair support to FFCs.
Operational Logistics	⚓ Creating pre-positioned supply nodes and overseas facilities for enhanced reach. ⚓ Establishing reciprocal logistics agreements with FFCs for fuel, provisions and port access. ⚓ Supplying spare parts and logistics support to sustain FFC capabilities.
Jointness, Integration and Whole-of-Nation Approach	⚓ Engaging and coordinating with GoI stakeholders on maritime security issues.

Sub-Strategies[89]

The *Strategy to Shape a Favourable Maritime Environment* rests on six sub-strategies that cater to various aspects of maritime security, maritime engagement, regional cooperation, maritime governance, humanitarian assistance and maritime consciousness.

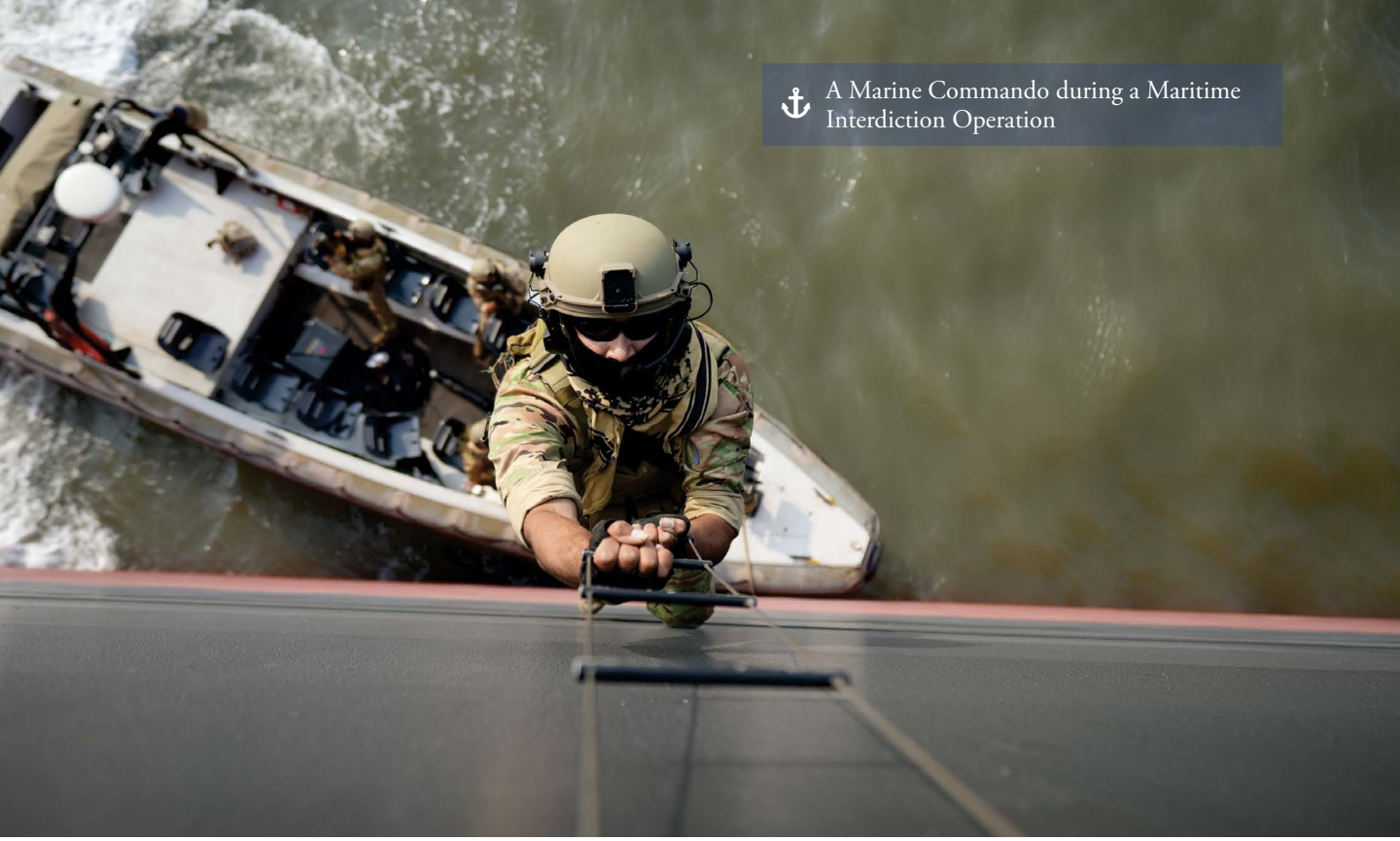
Sub-Strategy 4.1 – Ensure Presence and Rapid Response

The Indian Navy deploys combat ready and potent naval assets in its areas of interest to safeguard national interests, as well as to assure FFCs of Indian Navy's commitment to proactively address threats and challenges in the region. It serves to imbue positive impact in the region, by contributing to maritime security and translating presence into rapid operational response when called for. In terms of adversaries, it also contributes to credible deterrence.

Naval Deployments. Presence and rapid response capability are ensured through Mission Based Deployments (MBDs), Presence and Surveillance Missions (PSMs), EEZ surveillance and patrols, Coordinated Patrols (CORPATs), Anti-Piracy Operations, Maritime Interdiction Operations (MIOs), Peace Support Operations (PSO), etc. Collectively, such deployments shape the maritime environment through versatile employment of naval capability to respond to emerging situations.

Anti-Piracy. The Indian Navy has been undertaking anti-piracy missions in the Gulf of Aden on a sustained basis for nearly two decades. The Navy's proactive anti-piracy actions, including active and opposed intervention operations when necessary, have contributed to containing piracy in the region. The implementation of national legal reforms, such as Maritime Anti-Piracy Act (2022), have further empowered the Indian Navy with the legal authority and mandate to board and seize ships, and arrest persons engaged in piracy in the EEZ and on the high seas.

Contributing to Free and Open Seas, and Adherence to Rules-Based Order. *Free and Open Seas* and *Rules-based Order* entail that littoral states, as well as extra regional forces operating in the region, abide by established international norms and refrain from misusing the global commons.[90] Through sustained deployments across the IOR, the Indian Navy contributes to this framework by deterring unlawful behaviour – state or non-state; enhancing shared MDA; and promoting adherence to established international norms. In addition, the Navy's maritime engagements across the region foster trust and promote a shared commitment to protecting the global commons.



A Marine Commando during a Maritime Interdiction Operation

Sub-Strategy 4.2 – Enhance Security through Cooperative and Collaborative Initiatives as *Preferred Security Partner*

As the largest stakeholder in the region, *Preferred Security Partner* alludes to India being a *responsible, credible and capable partner that regional states and stakeholders, trust, favour and prioritise to provide security assistance, capacity building and operational support in times of need.* This entails having the capacity, capability and intent to deliver when needed. Within this broad context, as also towards preserving and promoting India's maritime interests, the Indian Navy employs four pillars as principal tools of maritime diplomacy:-

⚓ **Capacity Building.** *Capacity Building* is aimed at provisioning of platforms (such as warships, submarines, helicopters and Maritime Patrol Aircraft), equipment, and infrastructure (such as jetties/ repair yards/ coastal radar chains) to meet FFC's maritime security requirements. Capacity building is pursued through grants or long-term low-interest financial loans (Lines of Credit). The growth of national defence industrial base further enhances the scope and quality of capacity building initiatives undertaken by the Indian Navy.

⚓ **Capability Enhancement.** While capacity building addresses materiel and infrastructural aspects, efforts to strengthen human resource and improve operational proficiency of FFCs is undertaken through *Capability Enhancement*.

These include training of international students at Naval establishments; Operational Sea Training of FFC platforms in India/ at host nation; as well as deputing Mobile Training Teams (MTTs) and specialist naval personnel to support FFCs in their missions/ tasks. Engagement through IFC-IOR contributes to strengthening MDA and collective operational capability of participating nations. Efforts are also focussed on providing technical assistance for refits and maintenance of platforms, augmenting MDA, hydrographic survey assistance, diving assistance, information sharing and cooperation in MDA, Submarine SAR and EEZ surveillance, among others, to enhance operational proficiency of FFCs. Through these engagements, the Indian Navy also endeavours to learn and imbibe best practices and experiences from partner navies.

⚓ **Constructive Engagements.** *Constructive Engagements* include structured dialogues (bilateral/ trilateral/ multilateral) and interactions at sea. These are facilitated through port visits, Staff Talks, Key Leadership Engagements (KLEs), bilateral and multilateral exercises with FFC navies, information and logistics sharing agreements, CORPATs, etc. Such engagements enable the Navy to develop a deeper understanding of FFC's concerns, strengths, capacity and capability shortfalls, as also enhance interoperability to collectively address maritime security challenges.

⚓ **Collaborative Efforts.** The Indian Navy actively engages in bilateral/ trilateral/ multilateral *Collaborative Efforts* to build trust and address shared threats and challenges in the region. These include frameworks, such as the Indian Ocean Naval Symposium (IONS), MILAN, Goa Maritime Conclave (GMC), and the Western Pacific Naval Symposium (WPNS). Apart from forums that bring together naval and maritime force, the Indian Navy also contributes and participates as a stakeholder in G-2-G frameworks related to maritime security. These include Indian Ocean Rim Association (IORA – Maritime Security Group); Bay of Bengal Initiative for Multi-Sectorial Technical and Economic Cooperation (BIMSTEC – Experts Group Meeting on Maritime Security); Indo Pacific Oceans Initiative (IPOI – contribution to India led pillars); the Colombo Security Conclave; the Combined Maritime Forces (CMF); and the Djibouti Code of Conduct – Jeddah Amendment; among others.

Sub-Strategy 4.3 – Global and Regional Maritime Governance – Engaging as a Responsible Stakeholder

India's expanding maritime interests and growing strategic weight confer both an opportunity and a responsibility to engage actively in shaping the governance of the global maritime domain. Maritime governance encompasses the multilateral

frameworks, international conventions, and institutional mechanisms through which the use, management, and stewardship of the maritime domain is regulated - spanning national jurisdiction, exclusive economic zones and areas beyond national jurisdiction. As a maritime power and a coastal state whose economic prosperity is deeply intertwined with the stability of the maritime domain, India approaches maritime governance as an active and responsible stakeholder with a legitimate interest in shaping holistic outcomes.

Within this broader national endeavour, the Indian Navy engages purposefully in maritime governance processes steered by nodal Ministries of the GoI, as an important institutional voice whose operational experience, technical expertise and maritime awareness can meaningfully inform governance outcomes. The Indian Navy's engagement in maritime governance is anchored in the imperative that frameworks, norms and institutional decisions that emerge from governance processes directly shape the maritime security environment within which the Navy operates. Informing these outcomes, even in a supporting capacity, is, therefore, an extension of the Navy's priorities. The principal domains where the Indian Navy's engagement in maritime governance is particularly relevant are as follows:-

⚓ **International Legal and Regulatory Frameworks.** India's participation in UNCLOS-based mechanisms and other international frameworks associated with the maritime domain, such as the IMO, IHO, etc., underpins its standing as a rules-respecting maritime power. The Indian Navy contributes technical and operational perspectives to India's positions in these forums, particularly on matters relating to navigation rights, maritime jurisdiction and the conduct of operations where naval expertise is directly germane to the framing of India's positions.

⚓ **Regional Maritime Governance Architecture.** At the regional level, the Indian Navy engages with, and supports, India's participation in the Indian Ocean Rim Association (IORA), the Indian Ocean Commission, and several other such mechanisms. The Navy's operational presence, capacity building activities and cooperative engagements with regional partners reinforce and amplify India's institutional impact in regional maritime governance forums.

⚓ **Blue Economy and Ocean Sustainability.** The Indian Navy supports India's engagement in frameworks governing fisheries management, marine pollution response, and sustainable use of ocean resources. The Indian Navy supports and complements the efforts of designated agencies, including the Indian Coast Guard, in these domains, while contributing through cooperative engagements with regional partners on ocean sustainability issues.



Through sustained and purposeful engagement across these domains, the Indian Navy's efforts reinforce India's standing as a responsible, capable and engaged maritime power in the Indian Ocean Region and beyond.

Sub-Strategy 4.4 – Extend Support in National/ International Humanitarian Situations as *First Responder*

Being a *First Responder* implies the *capability and readiness to promptly and proactively respond to maritime emergencies and security threats faced by littoral partners.* The Indian Navy harnesses India's favourable geography, multi-role capabilities and regional presence, and endeavours to be the First Responder to maritime incidents, security threats and crises across the IOR. This is important, because it builds trust with regional partners, demonstrates commitment through actions and allows the Navy to assist other nations when they need us the most – effectively positioning India as a reliable and trustworthy stakeholder. First Responder capability is a natural corollary and extension of our aspiration to be a Preferred Security Partner.

The Indian Navy also aims to be a significant contributor to national HADR contingencies and situations, working in concert with other national stakeholders, state authorities and local administration. This is important because rapid naval response to

natural disasters, floods, cyclones and other emergencies saves lives, alleviates suffering, and reinforces the Navy's position as a trusted institution that serves the nation and its citizens in times of crises.

Humanitarian Assistance and Disaster Relief Operations. The Indian Navy's operational response to HADR operations, both at national and international levels, is built upon readiness, rapid mobilisation and coordinated action. The Navy's sea-lift assets enable transport of essential relief material and specialised teams, ensuring prompt and coordinated relief response. Successful HADR in international crises rests on pre-deployment planning and effective coordination with diplomatic missions and host nation authorities. At the national level, supporting HADR effort involves coordination with the National Disaster Response Force (NDRF) and sustained engagement with state/ local agencies to strengthen overall national disaster response architecture.[91]

Non-combatant Evacuation Operations (NEO). NEO hinges on proactive planning, sea-lift capabilities, tailored rules of engagement; and coordination with GoI/ host nation authorities, diplomatic entities, other national agencies, and multinational partners.



Maritime Search and Rescue (M-SAR). The Indian Coast Guard is the designated national agency for coordination of Maritime Search and Rescue in the Indian Search and Rescue Region (ISRR).[92] M-SAR efforts are supported by the Indian Navy and the Indian Air Force, in addition to all other maritime agencies in the ISRR.[93] The Maritime Rescue Coordination Centres (MRCC) (Mumbai, Chennai and Sri Vijaya Puram) are responsible for coordinating SAR operations within the ISRR. Naval units assist in SAR operations, when requisitioned by the Maritime Rescue Coordination Centres, through Joint Operations Centres (JOCs)/ Maritime Operations Centres (MOCs).

Sub-Strategy 4.5 – Engage, Support and Develop Confidence among India's Maritime Community and Diaspora

India's expansive maritime interests encompass the security of its merchant fleet, the protection of its seafarers and diaspora, and the maintenance of sustained and unimpeded maritime connectivity upon which regional trade, energy flows and commerce depend. The Indian Navy advances these interests not merely through the protection of Indian nationals and assets, but through active contribution to a stable and secure maritime environment — within which the movement of people, goods and energy across India's areas of maritime interest remains unimpeded. In that sense, the protection of Indian maritime interests and the provision of regional maritime security are complementary imperatives.

Merchant Marine. Protection of Indian shipping (or India-bound trade, when necessary) from threats that hinder free flow of commerce relevant to India is one of the key responsibilities of the Indian Navy. This responsibility, however, extends beyond the protection of Indian-flagged vessels alone. Indian Navy's deployments in the Arabian Sea, Gulf of Oman, Gulf of Aden, and the broader IOR reflect an understanding that sea lane security is a regional public good, the preservation of which serves Indian national interests, as also contributes to regional maritime stability. Sustained interaction and knowledge exchange between naval personnel, merchant mariners and seafarers facilitates coordination, timely incident response and improved MDA, reinforcing maritime safety and security. Institutionally, IFC-IOR functions as the nodal ship-reporting centre in the IOR, supporting maritime security incident response towards the protection of shipping and seafarers.

Indian Seafarers. Indian seafarers, through their professional expertise and integration with international merchant fleets, project India's maritime competence and professionalism on a global scale. Operating across critical international shipping routes and littoral zones worldwide, Indian seafarers constitute vital nodes in India's maritime network with direct implications for the continuity of regional and



Building Bridges of Friendship - Indian Navy's Sail Training Ship INS *Sudarshini*

international maritime commerce and connectivity. The Indian Navy supports seafarer protection through coordination with national authorities and international maritime agencies on an as required basis. During piracy situations, humanitarian emergencies, or geopolitical crises, the Navy acts as the primary responder, safeguarding Indian seafarers at sea and reinforcing national maritime presence.

Diaspora. The Indian Navy functions as a vital institutional bridge, fostering confidence and enduring relationships with the diaspora through port visits and engagements during peacetime. During humanitarian crises or civil strife, the Navy assumes the role of First Responder, providing humanitarian assistance to affected host nations, whilst simultaneously supporting the security and evacuation of Indian nationals. The Navy's presence also reassures the diaspora that India possesses the reach and capability to support them anywhere, thereby deepening their confidence in their country of origin. The humanitarian dimension of these operations simultaneously reinforces India's standing as a responsible and capable regional security provider.

Sub-Strategy 4.6 – Foster Maritime Consciousness at National level

India's growth and prosperity are inextricably linked to the seas. The Indian Navy, whilst ensuring security of India's maritime interests, actively fosters maritime consciousness

among the citizenry, particularly among the youth. Through educational visits, seminars and lectures; outreach programmes; and engagement initiatives, the Navy cultivates a deeper understanding of maritime affairs and India's oceanic potential. In terms of the broader public, especially in coastal regions, mainstream and social media campaigns, documentaries, and public engagement events help raise awareness of maritime heritage, maritime security, and the reliance on the seas for economic prosperity. Strengthening civil-military relationships with policymakers and proactive engagement with academia are also prioritised through dialogue, collaborative initiatives and publishing research papers and journals. These efforts shape a maritime-aware society that comprehends the integral relationship between naval capability, economic prosperity and national security.

Synthesis[94]

Roles, Strategy, Missions, Tasks

The Roles of the Indian Navy, as outlined in the IMD-2025, are implemented through Strategy. *Objectives* (MSOs) constitute the *Ends* of strategy. Each strategy comprises specific sub-strategies that bring out the broad contours, or ways, through which the strategy is realised. These sub-strategies, in aggregate, are operationalised through *Missions* and *Tasks*. A *Mission* – as outlined in NSP 1.1 – is a clear and concise statement of the task of a command, together with its purpose, indicating the action to be taken towards the attainment of the objective(s). A *Task* (also defined in NSP 1.1) is a specific function or activity that defines the precise action to be taken towards the accomplishment of the mission.

The *Synthesis* section synchronises the *Objectives* (MSOs) of a particular strategy, with *Missions* and *Tasks*, correlating these in the context of the broader *Roles* of the Indian Navy. These *Missions* and *Tasks* are neither *prescriptive* – in that they do not mandate a fixed set of actions for every situation; nor are they descriptive – in that they do not

***Role*: The enduring function and purpose assigned to a military force.**
***Objective*: A clearly defined, decisive and attainable goal towards which every military operation is directed.**
***Mission*: A clear and concise statement of the task of a command, together with its purpose, indicating the action to be taken towards the attainment of the objective(s).**
***Task*: Defines the precise action to be taken towards the accomplishment of the mission.**

attempt to capture every possible mission or task that may arise. Rather, they serve as frameworks for alignment, enabling Commanders to exercise informed judgment, whilst ensuring that *Roles, Objectives, Missions* and *Tasks* remain coherent and mutually reinforcing.

Objective, Missions and Tasks. A summary of Objectives, Missions and Tasks, vis-à-vis roles of the Indian Navy to *Shape a Favourable Maritime Environment*, are tabulated below:-

Table 4.2: Objectives, Missions and Tasks towards Shaping a Favourable Maritime Environment

Objectives
- Shape a favourable maritime environment to enhance India's maritime security.
- Extend support in national/ international humanitarian situations and Out of Area Contingencies.

Tasks	Roles			
	Military	Diplomatic	Constabulary	Benign
Mission: Maintain Persistent Presence and MDA (*Linked Sub-Strategies: 4.1, 4.2*)				
MBDs/ PSMs	✓	✓	✓	
Surveillance and Reconnaissance	✓	✓	✓	✓
Maritime Patrol/ Coordinated Patrol (CORPAT)	✓	✓	✓	✓
Information Exchange with FFCs/ regional centres	✓	✓	✓	
Protection of offshore assets and economic zones	✓		✓	
Visit, Board, Search and Seizure Ops (VBSS)	✓		✓	
Mission: Strengthen Constructive Maritime Engagement and Provide Maritime Assistance & Support (*Linked Sub-Strategies: 4.2, 4.4, 4.5*)				
Peace Support Operations under UN mandate	✓	✓		
Port and goodwill visits to friendly nations		✓		✓
Provisioning of platforms, equipment, and infrastructure	✓	✓	✓	✓

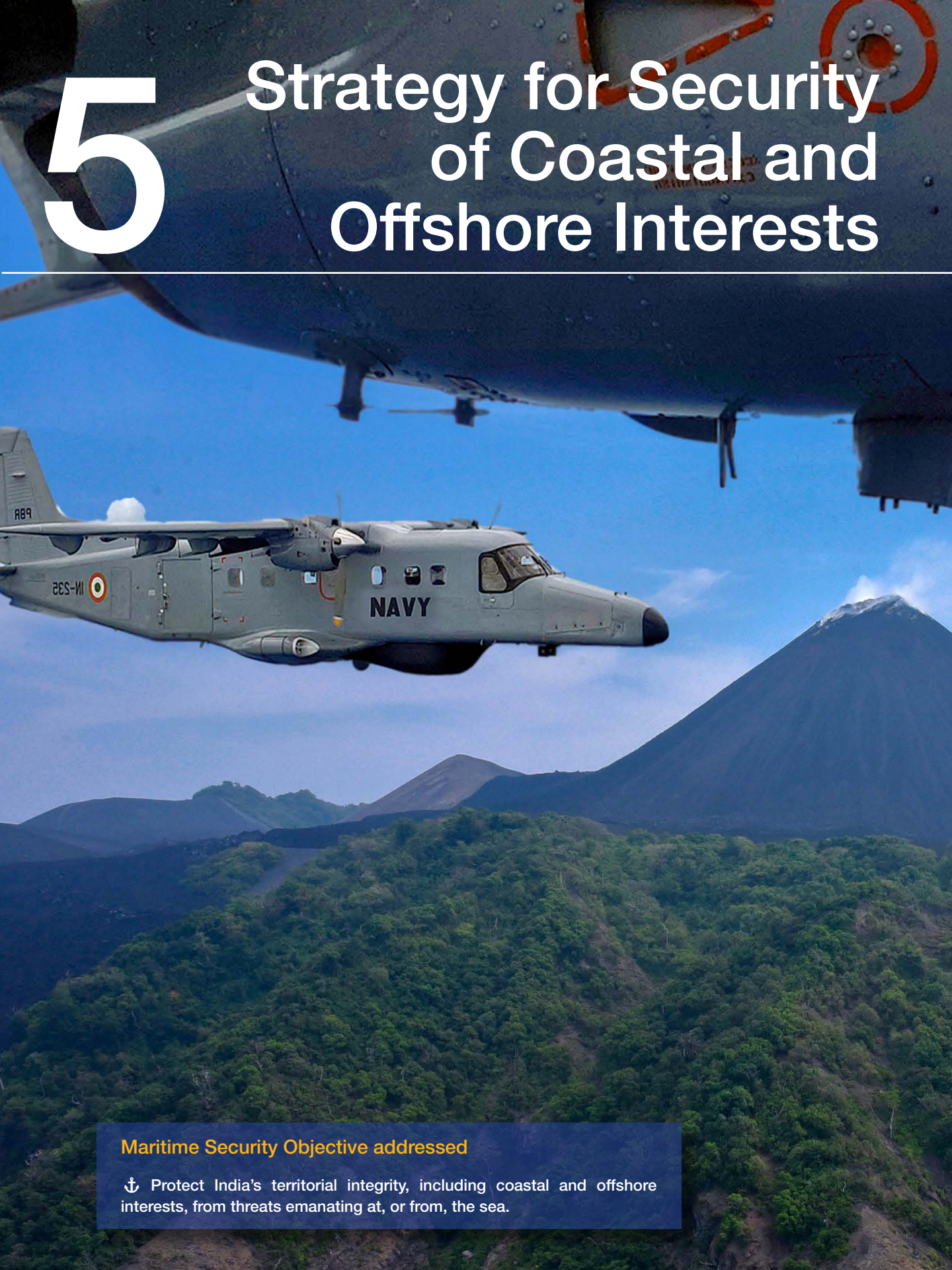
Tasks	Roles			
	Military	Diplomatic	Constabulary	Benign
Key Leadership Engagement (KLE)		✓		
Hosting visits of warships from FFCs	✓	✓		
Bilateral, trilateral and multilateral constructs	✓	✓	✓	
Technical and logistics support to FFCs		✓		✓
Foreign training and capacity building programmes	✓	✓		✓
Submarine Search and Rescue Collaboration	✓	✓		✓
Bilateral and multilateral exercises	✓	✓		
Training Support/ Mobile Training Teams		✓		
Maritime assistance to IOR littorals		✓		✓
Ship repair and maintenance support to partner navies	✓	✓		✓
Mission: Preferred Security Partner and First Responder (*Linked Sub-Strategies: 4.1, 4.2, 4.4, 4.5*)				
Non-combatant Evacuation Operations	✓	✓		✓
Peace-enforcement, peace-making, peace-keeping and peace building	✓	✓		✓
Maritime Interdiction Operations (MIO)	✓	✓		
First Responder operations during regional emergencies		✓		✓
Rapid deployment of naval assets for crisis response	✓	✓		✓
Emergency medical and logistic support to FFCs		✓		✓
Mission: Counter Maritime Terrorism and Illicit Activities (*Linked Sub-Strategies: 4.1, 4.2, 4.3*)				
Counter-infiltration patrols and operations	✓	✓	✓	
Anti-piracy operations and escort duties	✓		✓	
Anti-poaching and fisheries protection			✓	
Anti-trafficking and counter-smuggling operations			✓	
Counter-terrorism cooperation with regional partners	✓	✓	✓	

Tasks	Roles			
	Military	Diplomatic	Constabulary	Benign
Mission: Provide Humanitarian Assistance, Disaster Relief and Search and Rescue Support (*Linked Sub-Strategies: 4.1, 4.2, 4.3*)				
HADR operations as regional First Responder	✓	✓		✓
Provision of relief material and supplies		✓		✓
Medical assistance and hospital ship deployments		✓		✓
Diving assistance and salvage operations		✓		✓
SAR coordination in the IOR		✓		✓
SAR operations for vessels and aircraft in distress	✓	✓	✓	✓
Coordination with national/ international SAR agencies		✓	✓	✓
Mission: Hydrographic Cooperation and Support (*Linked Sub-Strategies: 4.2, 4.3*)				
Hydrographic Services and Nautical charting	✓	✓		✓
Hydrographic assistance and capacity building for FFCs		✓		✓
Oceanographic research and data collection	✓			✓
Mission: Foster Maritime Consciousness (*Linked Sub-Strategies: 4.6*)				
Promoting maritime awareness amongst Indian public				✓
Engagement with academic institutions/ think tanks	✓	✓		✓
Outreach programmes for coastal communities				✓
Participation in seminars and conferences	✓	✓		
Media engagement on maritime issues	✓	✓		✓
Mission: Support Civil Authorities and National Development (*Linked Sub-Strategies: 4.1, 4.3, 4.4*)				
Aid to civil authorities during emergencies/ crises	✓		✓	✓
Support for coastal community development			✓	✓
Marine scientific research and environmental monitoring	✓	✓		✓

Conclusion

The Indian Navy's efforts to strengthen maritime security, deepen regional cooperation, extend humanitarian support and foster maritime consciousness, ensures a *favourable maritime environment* that promotes India's national interests and maritime security objectives. Ensuring presence and rapid response, combined with constructive maritime engagement, and commitment to protect global commons, contribute to shared prosperity, as well as reinforcing India's efforts to be the Preferred Security Partner. The ability to extend humanitarian support swiftly and effectively also positions the Indian Navy as the First Responder in the region. Together, these endeavours establish the Indian Navy as a pivotal instrument for safeguarding India's maritime future, whilst reinforcing regional stability. ⚓

5 Strategy for Security of Coastal and Offshore Interests



Maritime Security Objective addressed

⚓ Protect India's territorial integrity, including coastal and offshore interests, from threats emanating at, or from, the sea.

Overview

Introduction

The interconnected nature of the maritime domain enables free flow of threats and challenges across different regions. The rise of maritime terrorism and maritime crime has necessitated an enhanced focus on coastal and offshore security. In addition, hybrid threats from state/ non-state actors blending conventional and unconventional methods, alongside illicit activities, exploit the openness of the maritime domain to threaten coastal populations, infrastructure (including undersea infrastructure), offshore interests and maritime economic interests. Accordingly, the *Strategy for Security of Coastal and Offshore Interests* focusses on securing India's coastal and offshore capabilities against hybrid threats, maritime terrorism, maritime crimes and illicit activities, in coordination with other central and state agencies.

Over the past two decades, in response to expanding threats to coastal and offshore security, India's security apparatus has evolved in significant ways.[95] The events of *26/11* led to a revamp of the coastal and offshore security construct. Enhanced patrolling and surveillance in coastal areas are since being undertaken by the State Marine Police (SMP)[96], Customs, Indian Coast Guard and the Indian Navy. Substantial progress has been made in recent years, to a large, complex and dynamic challenge.

The *Strategy for Security of Coastal and Offshore Interests* has been developed with a focus on the Indian Navy, as per its current mandate, in a coordinated framework with the other maritime agencies. Increasing role and operational responsibilities are envisaged to be taken up by the Indian Coast Guard and other agencies, as their capabilities and the ambit of coastal security both evolve.

Key Definitions

Specific definitions relevant to this strategy are outlined in the subsequent paragraphs

Coastal Waters. The context of coastal security is in relation to the coastal waters zone, in which it is to be principally applied. This is considered for the purposes of this strategy, as the water area seawards of the Indian coast or baseline as the case may be, up to the limits of India's Contiguous Zone, or the IMBL in case the latter is nearer.[97] However, threats can move swiftly across open waters, from the high seas into India's maritime zones and coastal waters. This necessitates monitoring of sea areas extending beyond the coastal waters, in order to secure this zone and ensure timely detection and response to emergent threats.

Coastal Security. Coastal security is a subset of maritime security focussed on coastal waters. It entails the protection, preservation and promotion of peace, stability and security in coastal waters, against various threats. This would enable the pursuit of legitimate activities in coastal waters and also adjacent coastal land. Coastal security encompasses the maintenance of law and order; measures to monitor and regulate activities with a bearing on security; and aspects related to defence in case of an armed threat or attack in coastal waters. In view of the range of activities, directly and indirectly, affecting India's coastal security, there are a large number of agencies involved in the coastal security framework.[98] An effective organisation for coastal security also facilitates coastal defence.

Offshore Security. Offshore security relates to the safety and protection of offshore assets, including artificial islands, offshore terminals, installations and other structures and devices in the EEZ.[99] It is a primary responsibility of the Indian Coast Guard, which is supported by the Indian Navy as required, towards overall maritime security.[100]

Coastal Defence. Coastal defence is primarily a military function of defending the nation and citizens against seaborne threats from conventional and sub-conventional armed attacks in coastal areas within the broad framework of overall maritime security. It encompasses measures to prevent, counter and neutralise such attacks both in coastal areas and further seawards, before the threat can be brought to bear on the coast. Seaborne attacks against India's coast and offshore interests could include the use of missiles, mines, guns and explosives, by ships, submarines, aircraft, autonomous vessels/ craft and Special Forces; use of uncrewed platforms, such as drones, and even by collision or scuttling of vessels. Coastal defence entails protection from such seaborne attacks against the coast and coastal assets, including populace, ports, harbours, infrastructure, Vital Areas and Vital Points (VAs/VPs).[101] The specific actions for coastal and offshore defence have been covered under the *Strategy to Attain National Objectives during Conflict.*

Offshore Defence. Offshore defence entails the defence of India's offshore assets against conventional and sub-conventional warfare, and is closely related to coastal defence. It is provided by the Indian Navy, in coordination with the Indian Air Force and Indian Coast Guard. Command and control over mobile forces and static defences, in the defence of offshore installations, is carried out by the Flag Officer Offshore Defence Advisory Group (FODAG), under the respective Naval Commanders-in-Chiefs (Cs-in-C), who are also the Cs-in-C Coastal Defence.[102]

Coastal and Offshore Security Framework

Coastal Security Mandate. In February 2009, the Indian Navy was entrusted with the responsibility for "overall Maritime Security, including Coastal Security and Offshore Security."[103] The Indian Coast Guard, as enshrined in the Coast Guard Act, 1978, is

responsible for ensuring the security of the Maritime Zones of India, and protection of maritime and other national interests therein.[104] It has been additionally designated as the authority responsible for coastal security in territorial waters, including waters to be patrolled by the SMP. The Director General, Indian Coast Guard, also designated as the Commander Coastal Command, is responsible for overall coordination between central and state agencies in matters relating to coastal security. The Naval Commanders-in-Chief (Cs-in-C) have been additionally designated as the Cs-in-C Coastal Defence.[105] The Indian Navy is assisted by the Indian Coast Guard, State Marine Police and other central and state agencies for the coastal defence of the nation, and controls all Navy-Coast Guard joint operations.

Coastal Security Agencies. The Indian Navy, Indian Coast Guard and other central and state government agencies, such as State Marine Police, Central Industrial Security Force (CISF), Border Security Force (BSF), and Customs and Immigration, are the maritime security agencies entrusted with synchronised roles, responsibilities and zones of jurisdiction towards coastal and offshore security. This security framework is guided by GoI policies and commensurate security orders promulgated by respective stakeholders from time-to-time.

Coastal Security Framework. At the national level, the Ministry of Home Affairs (MHA) is responsible for the management of borders, including coastal borders, and

Strategy for Security of *Coastal and Offshore Interests* focusses on securing India's coastal and offshore capabilities against hybrid threats, maritime terrorism, maritime crimes and illicit activities, in coordination with other central and state agencies.



oversees the implementation of the Coastal Security Scheme. The *National Committee on Strengthening Maritime and Coastal Security against Threats from the Sea (NCSMCS),* under the chairpersonship of the Cabinet Secretary; the State Coastal Security Committees under the chairpersonship of the Chief Secretary, and the District Coastal Security Committees under the chairpersonship of the District Magistrates, further augment the coastal security framework. The NMSC, in concert with the Maritime Security Wing (MSW) in the NSCS, coordinates issues related to maritime and coastal security across central and state governments/ agencies for developing a cohesive framework. The State Maritime Security Coordinator (SMSC) in coastal/ UTs are responsible for coordination at the state/ UT levels. These *Multi-Agency Maritime Security Groups* (MAMSG) – viz apex, policy, and intelligence – have been set up under the aegis of the NSCS/ NMSC to coordinate issues of coastal security.

Offshore Security Framework. Offshore security measures are regularly strengthened, reviewed and refined, both independently and in a coordinated manner, through the mechanisms of the Offshore Security Coordination Committee (OSCC), under the chairpersonship of Director General, Indian Coast Guard; and the Joint Venture Offshore Protection Advisory Committee (JVOPAC), a sub-committee of the OSCC under the chairpersonship of the FODAG. Through JVOPAC, initiatives for strengthening security by public sector and private players is encouraged, and measures for improving their coordination with security agencies is facilitated.

Core Enablers

The specific enablers relevant to the *Strategy for Security of Coastal and Offshore Interests*, are tabulated below:-

Table 5.1: Core Enablers: Strategy for Security of Coastal and Offshore Interests

Core Enabler	Specific Attributes for Security of Coastal and Offshore Interests
Capability Development	⚓ Shallow water and littoral warfare capabilities, including fast attack craft, patrol vessels, and minor war vessels. ⚓ Specialised platforms for offshore asset protection, including oil rig security and underwater infrastructure protection. ⚓ Uncrewed systems for persistent presence, surveillance and rapid response. ⚓ Anti-drone and counter-uncrewed systems for point defence of critical assets/ areas. ⚓ Rapid reaction forces capable of swift insertion and interdiction in coastal zones/ offshore areas and installations.

Core Enabler	Specific Attributes for Security of Coastal and Offshore Interests
Networks	⚓ Integrated coastal surveillance network linking naval, coast guard and civil maritime agencies. ⚓ Secure communication links between offshore installations and maritime operations centres. ⚓ Coordination protocols for information sharing with state maritime and law enforcement agencies.
Maritime Domain Awareness	⚓ Comprehensive coastal radar chain with gap-free coverage of littoral waters under the ICG. ⚓ Integration of AIS, Vessel Traffic Services (VTS) and Long Range Identification and Tracking. ⚓ Underwater surveillance systems for harbour and offshore infrastructure protection. ⚓ Satellite and space-based assets for wide-area coastal and offshore surveillance. ⚓ Electro-optical and thermal surveillance for critical asset perimeters. ⚓ National level MDA integration through the NMDA framework. ⚓ Integration with Marine Spatial Planning and other data sources. ⚓ Fishing Vessel transponders.
STRATCOM and IW	⚓ Public awareness frameworks for coastal communities as force multipliers in surveillance.
Jointness, Integration and Whole-of-Nation Approach	⚓ Appropriate frameworks and structures integrating Indian Navy, Indian Coast Guard, State Marine Police and other stakeholders. ⚓ Multi-agency coordination centres for real-time response to coastal and offshore threats. ⚓ Institutionalised frameworks for inter-agency exercises and contingency planning. ⚓ Threat assessment and early warning dissemination to coastal security stakeholders, offshore operators and port authorities.

Sub-Strategies

The *Strategy for Security of Coastal and Offshore Interests* rests on six sub-strategies that cater to various aspects of coordinated presence; inter-agency planning; synchronised response; strengthening maritime governance; coordinated capability development; and coastal community engagement.

Sub-Strategy 5.1 – Coordinated Presence and Patrol

Maritime presence and coordinated layered patrols constitute the cornerstone of coastal and offshore security, enabling early detection and rapid response. Through visible deployment of ships/ vessels/ craft, aircraft and uncrewed assets, maritime presence strengthens situational awareness and deters state/ non-state actors from advancing their objectives.

Surveillance and patrolling in coastal and offshore areas form an active part of presence, to monitor, detect and respond to emerging threats and challenges. It also deters any unauthorised incursions and inimical actions. These actions are coordinated across time and space between maritime security agencies to optimise patrol frontage and depth. Patrol areas are determined by the maritime zones of responsibilities as per extant GoI policies, legal mandates, CCS directives, promulgated SOPs and existing operational capabilities of the agencies involved. The presence of naval assets in Maritime Zones of India augments the coastal and offshore security framework by maintaining constant vigil to deter and counter threats.

Sub-Strategy 5.2 – Joint/ Inter-agency Contingency Plans, Exercises and SOPs

Contingency Plans. The evolving threats to India's coastal and offshore interests necessitate joint/ interagency contingency plans, to enable interoperability between various agencies, and ensure rapid response to a wide range of scenarios. These contingency plans involve comprehensive and regular threat assessments, followed by promulgation of SOPs aimed at enhancing synergy. The plans, further, streamline information-sharing mechanisms, Rules of Engagement (RsOE), and command and control protocols, to ensure unified response, whilst operating under conditions of possible intelligence gaps, capabilities mismatch, and operational 'fog'. Regular exercises in real-time conditions allow services and agencies to validate these plans and build operational familiarity for a coordinated response.

Exercises. Coastal Security Exercises are carried out regularly across all coastal states and UTs, to test coordination mechanisms, identify voids, streamline procedures, and provide operational training. Indian Navy conducts pan-India coastal security and defence exercise *Sea Vigil* on a biennial basis with participation of all concerned agencies involved in the coastal and offshore security construct. Additionally, Coastal Security exercise *Op Sajag* and *Op Sagar Kavach* are coordinated by the Indian Coast Guard, with participation by the Indian Navy, State Marine Police and other Central and State agencies. These exercises have steadily graduated to more complex levels across a wider maritime frontage. Joint Coastal Security exercises are progressed as the



Slithering operations by MARCOS on an oil rig

core means to enhance preparedness and coordinated operational response, amongst multiple agencies.

SOPs. SOPs are also periodically reviewed and updated based on the experience gained from operations and exercises. Interoperability is strengthened through readiness for contingencies as per evolving op scenarios, such as the transition of control from the first responder to the lead agency; from single-agency to multi-agency operations; and from security, to defence, with the insertion of additional forces in a coordinated and mutually supportive manner.

Sub-Strategy 5.3 – Coordinated Operational Response

Unified control of joint operations enhances the efficiency and effectiveness of response, with optimal utilisation of all assets. Control and coordination of joint operations is exercised through the Joint Operations Centres, which have been suitably equipped for the purpose, utilising the NC3I Network.



A submarine leaving harbour for patrol, accompanied by two Fast Interceptor Craft

Towards this, four JOCs function under the respective Naval Cs-in-C, at Mumbai, Kochi and Visakhapatnam; as also under the C-in-C, Andaman and Nicobar Command at Sri Vijaya Puram. These JOCs, equipped with NC3I, Subsidiary Multi-Agency Centre (SMAC) and Pre-Arrival Notification of Security (PANS) data, are jointly staffed by the Indian Navy and Indian Coast Guard, as also by representatives (as required) from State Marine Police, Fisheries, Customs and state administration. JOCs receive information from all stakeholders through the Regional Coastal Security Operations Centres (RCSOCs), State Coastal Security Operations Centres (SCSOCs), and Area Coastal Security Operations Centres (ACSOCs). The RCSOC, SCSOC and ACSOC have been activated by the Indian Coast Guard for coordination with central and state agencies, at regional, state and area levels respectively, through corresponding Coast Guard formations. These centres operate in a 'hub-and-spoke' model.

On receipt of intelligence, Visit, Board, Search, and Seizure is the primary method by which the *bona fides* of a vessel is ascertained. VBSS operations are undertaken in coastal waters, primarily by the Indian Coast Guard and State Marine Police, which

are Law Enforcement agencies. The Indian Navy also undertakes VBSS where legally mandated, and under its charter for overall maritime security.

Sub-Strategy 5.4 – Strengthening of Maritime Security Governance

Maritime security governance has evolved as a distinct and increasingly significant concept, reflecting the growing complexity of the maritime security landscape and the proliferation of actors, instruments and mechanisms involved in managing it. While *maritime governance* (as outlined in Chapter 4) relates to the broader regulation, stewardship and sustainable use of the maritime domain encompassing resource management, environment protection and international instruments such as UNCLOS, IMO conventions, and the BBNJ Agreement, *maritime security governance* focusses specifically on the institutional frameworks, coordination, architectures, norms and policy instruments through which maritime security is collectively managed. These span national agencies, inter-governmental mechanisms and multilateral arrangements, and include aspects of apex-level policy and review, interagency monitoring and coordination, and legislation, regulations, and rules for the conduct, control and monitoring of activities in the maritime domain. The Indian Navy's role in maritime security governance is direct and substantive, encompassing coastal and offshore security coordination with central and state agencies, contribution to national maritime domain awareness frameworks, participation in regional maritime security architecture and engagement with international conventions and multilateral mechanisms relevant to maritime security. In this domain, the Navy functions as an important institutional actor, shaping governance outcomes in consonance with its designated roles, responsibilities and tasking.

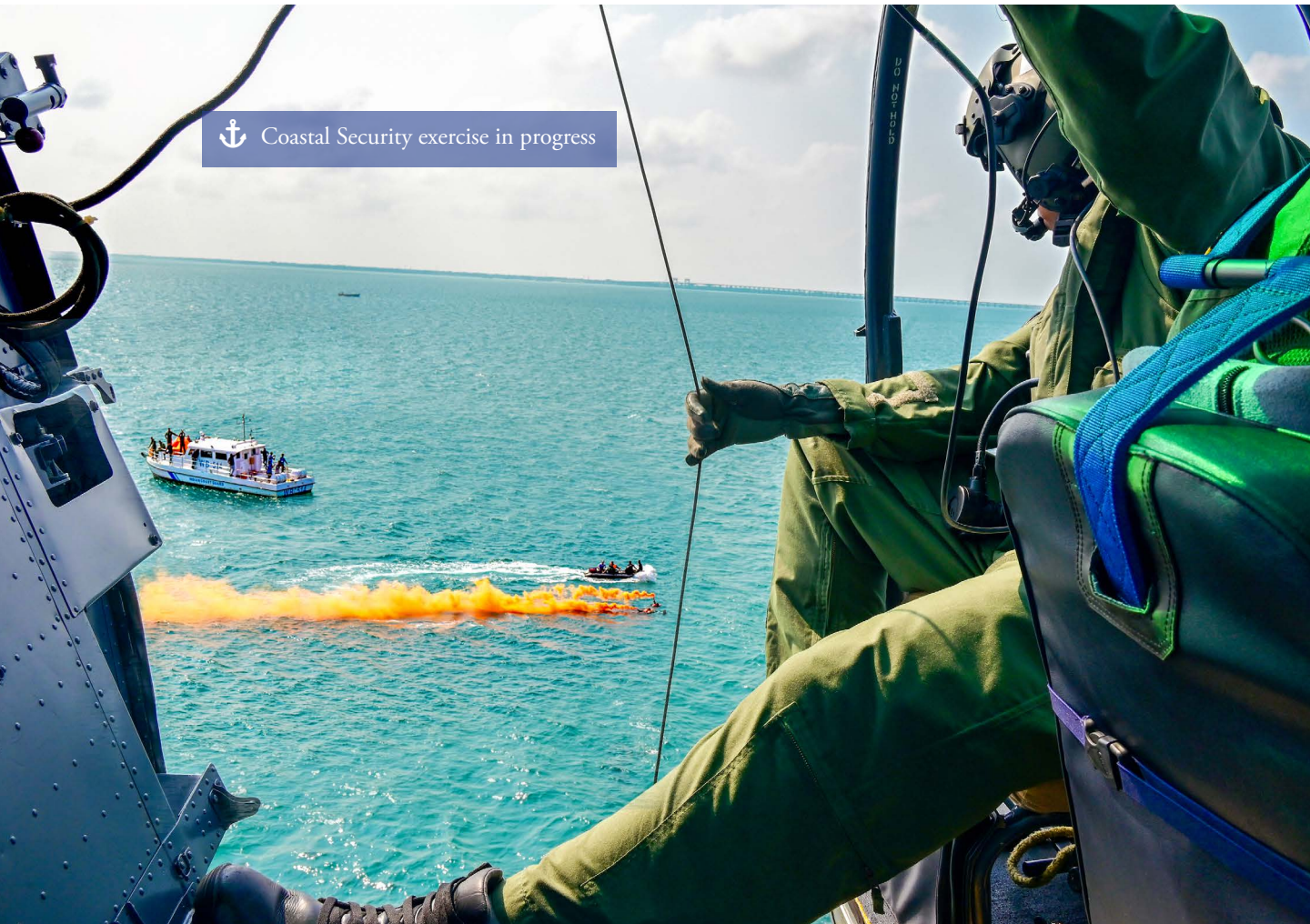
Sub-Strategy 5.5 – Joint/ Coordinated Capacity Building and Capability Enhancement

Security agencies involved in coastal and offshore security pursue capacity building and capability enhancement to meet coastal security requirements. The Indian Navy provides assistance to other maritime security agencies in this endeavour. This includes advice and inputs on asset acquisition where sought; training support for development of expertise in joint/ coordinated maritime security operations; and technical support in the development/ integration of maritime forces and infrastructure. It also entails strengthening operational infrastructure for coastal and offshore security needs, such as JOCs, Coastal Surveillance Network (CSN) and NC3I, to optimise financial cost, maximise operational gains and enhance interoperability.

Sub-Strategy 5.6 – Enhanced Engagement with Coastal/ Fishing Community

The coastal and fishing communities are *eyes and ears* of the coastal security apparatus and their effective involvement significantly complements coastal and offshore security efforts. The Indian Navy has been involved in Community Interaction Programmes (CIPs), both independently, as well as in conjunction with the Department of Fisheries (Ministry of Fisheries, Animal Husbandry & Dairying), the Indian Coast Guard and other maritime security agencies, to sensitise and incentivise the coastal community on issues of coastal security.

The Indian Navy also coordinates with other agencies towards leveraging communication systems, such as Vessel Communication and Support System (VCSS) and *Nabhmitra*[106] for disseminating information related to safety and security to the fishing community at sea. It continues capitalising on fishing community's widespread presence to augment MDA and enhance coastal security.



Coastal Security exercise in progress

Synthesis

Objectives, Missions, and Tasks. A summary of Objectives, Missions and Tasks vis-à-vis roles of the Indian Navy for *Security of Coastal and Offshore Interests* is tabulated below:-

Table 5.2: Objectives, Missions, and Tasks for Security of Coastal and Offshore Interests

Objective
- Protect India's territorial integrity, including coastal and offshore interests, from threats emanating at, or from, the sea.

Tasks	Roles			
	Military	Diplomatic	Constabulary	Benign
Mission: Maintain Presence and Maritime Domain Awareness in Coastal and Offshore Areas (*Linked Sub-Strategies: 5.1, 5.2*)				
Surveillance and Patrol in coastal waters, island territories and Offshore Development Areas	✓		✓	
Information operations for coastal and offshore security	✓		✓	
Mission: Ensure Force Protection of Naval Assets and Installations (*Linked Sub-Strategies: 5.3*)				
Protection of naval bases, dockyards and shore establishments	✓		✓	
Security of naval assets in harbour/ bases	✓		✓	
Force protection measures for naval assets	✓		✓	
Cyber security of naval networks and installations	✓		✓	
Mission: Counter Maritime Terrorism/ Threats from non-State Actors (*Linked Sub-Strategies: 5.1, 5.2*)				
Counter-infiltration operations along coastline	✓		✓	
Prevention of seaborne attacks	✓		✓	
Intelligence-driven operations against maritime terrorism	✓		✓	
Coordination with intelligence agencies/ law enforcement agencies	✓		✓	

Tasks	Roles			
	Military	Diplomatic	Constabulary	Benign
Mission: Strengthen Constructive Maritime Engagement and Provide Maritime Assistance and Support (*Linked Sub-Strategies: 5.1, 5.2, 5.5, 5.6*)				
Coordinated patrols with maritime security agencies	✓	✓	✓	
Capacity building for coastal security stakeholders		✓	✓	✓
Diving assistance for search, salvage and rescue	✓			✓
Info-sharing with port authorities/ offshore operators			✓	
Technical/ logistics support to ICG/ SMP/ other agencies	✓		✓	
Mission: Conduct Special Forces Operations in Maritime Domain (*Linked Sub-Strategies: 5.1, 5.2, 5.3*)				
Reconnaissance and surveillance by Special Forces	✓		✓	
Special operations in coastal and offshore areas	✓		✓	
Maritime interdiction and VBSS operations	✓		✓	
Mission: Strengthen Maritime Security Governance (*Linked Sub-Strategy: 5.4*)				
Coordination with NSCS for comprehensive national maritime security framework	✓			
Strengthening inter-agency coordination protocols and communication networks across maritime security stakeholders	✓		✓	
Contribution to national maritime legislation and policy frameworks	✓		✓	
Strengthening information sharing with ICG, SMP, port authorities, DG shipping, Department of Fisheries and Customs towards a common operating picture	✓		✓	

Tasks	Roles			
	Military	Diplomatic	Constabulary	Benign
Capacity building support to coastal security agencies, when sought, through training and joint exercises			✓	
Foster maritime security awareness among coastal communities, fishing populations and merchant marine			✓	✓
Contribute to review and refinement of multi-tiered coastal security construct	✓			✓
Strengthening NMDA framework			✓	

Conclusion

The *Strategy for Security of Coastal and Offshore Interests* is fundamental to safeguarding India against threats and challenges to coastal and offshore zones that originate, from, or, at sea. The seamless nature of the maritime environment and the enduring threat of maritime terrorism and maritime crimes, has resulted in entrusting the Indian Navy with responsibility for overall maritime security, encompassing coastal and offshore security. The formulation and subsequent execution of this strategy rests on clearly defined roles and mandates, robust inter-agency coordination, strengthened maritime governance and the active engagement with coastal communities. It is pursued through a combination of sustained presence, layered patrolling and cooperative mechanisms. Through joint preparedness, institutionalised coordination and progressive capability development, the strategy seeks to establish a comprehensive framework for addressing both present and emerging challenges to India's coastal and offshore interests. ⚓

6 Strategy to Deter Potential Adversaries



Maritime Security Objective addressed

⚓ Deter conflict and coercion against India.

Overview

Introduction

India's broader national security policy is based on the principle of self-defence and the tenets of *Panchsheel*.[107] The primary objective of maritime security strategy is, accordingly, to deter conflict and coercion against India. One of the primary tasks of the Indian Navy, during peace, as well as during NWNP situations is, therefore, to deter potential adversaries from initiating conflict or attempting coercion against India. While *Deterrence* aims to prevent adversaries from taking an undesirable action through denial or punishment *(Don't do something, or else…)*, *Compellence* seeks to force the adversary to take specific action by infliction of escalatory force and clear communication of demands *(Do something, or else…)*. Together, these concepts ensure preservation of peace and safeguarding of national maritime interests through use, or threat of use, of force. Navy's *Strategy to Deter Potential Adversaries* forms part of the overall national deterrence strategy towards a composite effect, synergising all elements of national power (political, diplomatic, informational, military and economic).

The Indian Navy primarily exercises deterrence by denying gains (deterrence by denial), or raising costs (deterrence by punishment). The success of deterrence rests on its credibility, which requires development of military capabilities for a range of possibilities; a corresponding will or resolve to respond to situations; and signalling of intent through projection and communication of these capabilities.

Conditions for Failure of Deterrence

While this strategy aims to deter adversaries, there may arise instances where deterrence fails. Three essential factors can lead to failure of deterrence and need to be considered in pursuing this strategy:-

- Incorrect reading of the level to which a potential aggressor is dissatisfied with the status quo, thus rendering deterrence ineffective.

- Absence of clarity to the potential aggressor about what is being deterred, as well as what will be the consequences if the defender's concerns are ignored.

- The potential aggressor does not believe that the defender has the capability and will to do what it threatens, thus, leading to failure of deterrence.

The Indian Navy mitigates these conditions by developing a comprehensive understanding of the adversary, effective signalling of its intent and sustained

The primary objective of maritime security strategy is to deter conflict and coercion against India.

demonstration of both capability and resolve. Since deterrence is not static, it must be continuously calibrated across the spectrum of conflict.

Core Enablers

The specific enablers relevant to the *Strategy to Deter Potential Adversaries* are tabulated below:-

Table 6.1: Core Enablers: Strategy to Deter Potential Adversaries

Core Enabler	Specific Attributes for Deterring Potential Adversaries
Capability Development	⚓ Sea-based segment of nuclear triad including nuclear-powered submarines (SSBNs) and submarine-launched ballistic missiles (SLBMs). ⚓ Blue-water surface and sub-surface combatants with long-range precision strike capabilities. ⚓ Carrier Battle Groups supported by SSNs and shore-based naval air assets for power projection and sea control across the Indian Ocean Region. ⚓ SSNs and AIP-capable submarines with long-range surface strike/ land attack capability. ⚓ Advanced anti-ship and land-attack cruise missiles for credible conventional deterrence. ⚓ Integrated air defence systems including ship-borne and shore-based missile batteries. ⚓ Underwater warfare capabilities including nuclear-powered submarines, conventional submarines and autonomous underwater vehicles. ⚓ Anti-satellite and space-based surveillance capabilities.
Networks	⚓ Cyber-resilient networks with multi-layered security protocols for critical systems.
Maritime Domain Awareness	⚓ Early warning systems for detection of hostile maritime and aerial threats. ⚓ Continuous monitoring of adversary nuclear and conventional naval deployments. ⚓ Space-based surveillance and satellite capabilities for persistent MDA, early warning and cueing of deterrence responses.

Core Enabler	Specific Attributes for Deterring Potential Adversaries
STRATCOM and IW	⚓ Coordinated messaging with national strategic communication apparatus during crises. ⚓ Cyber and Electronic Warfare capabilities for information dominance in contested environments.
Maintenance	⚓ High operational availability of assets through predictive maintenance regimes. ⚓ Stockpiling of spares and consumables for sustained operations. ⚓ Resilience of maintenance infrastructure through dispersal and hardening of repair facilities. ⚓ Lifecycle management ensuring continuous modernisation of platforms.
Jointness, Integration and Whole-of-Nation Approach	⚓ Coordination with Indian Air Force and Indian Army for conventional deterrence. ⚓ Joint intelligence architecture for shared situational awareness across the Defence Forces. ⚓ Multi-ministry and multi-agency coordination.

Deterrence operates across three distinct levels: nuclear, conventional and sub-conventional. Each level demands tailored strategies, force structures and signalling mechanisms, whilst remaining interconnected within a coherent deterrence architecture.

Nuclear Deterrence

Nuclear deterrence merits consideration as a separate level of deterrence, due to the nature of the weapon and its potential for mass destruction. As per India's Nuclear Doctrine, the fundamental purpose of nuclear weapons is to deter the use, and threat of use, of nuclear weapons against India. Hence, nuclear weapons will only be used in retaliation against a nuclear attack on Indian territory, or on Indian forces anywhere.[108] Additionally, India retains the option of retaliating with nuclear weapons, in event of a major attack against India, or Indian Defence Forces anywhere by biological or chemical weapons. India is committed to both, No First Use (NFU) of nuclear weapons, and to their non-use against non-nuclear weapon states. India's nuclear deterrence is based on the maintenance of a credible minimum deterrent, with assurance of massive nuclear retaliation designed to inflict unacceptable damage, in response to a nuclear

strike against India. The credibility of India's nuclear deterrence and "retaliation only" policy, rests upon the survivability of nuclear forces and assurance of punitive response. The sea-based leg of India's nuclear triad, developed and sustained through the Advanced Technology Vessel Programme (ATVP), with close involvement and support of the Indian Navy, therefore, constitutes a key element of India's nuclear deterrence posture.

The three principles of India's nuclear deterrence, namely *credibility, effectiveness* and *survivability*, are integrated into the sea-based segment of the nuclear triad, primarily through nuclear-powered submarines carrying ballistic missiles. A SSBN, due to its stealth characteristics enabling discrete and prolonged deployment, and combat capabilities including weapon outfit, provides a credible, effective and survivable capability, and contributes to assurance of punitive retaliation in accordance with our nuclear doctrine. SSBN deployments also counter an adversary's strategy of seeking advantage from nuclear posturing or escalation.

Adversaries have also historically employed nuclear rhetoric as a shield to pursue cross-border terrorism with impunity. However, in an evolving paradigm, India does not consider nuclear positioning as constraining its response options against acts of terrorism. This impetus to preventing nuclear rhetoric being used as a cover for sub-conventional aggression further enhances the relevance of both nuclear and conventional deterrence in the context of India's security.[109]

Sub-Strategy 6.1 – Ensure Credibility, Effectiveness and Survivability of sea-based component of Minimum Nuclear Deterrence

The Indian Navy, on its part, ensures the credibility, effectiveness and survivability of strategic platforms, through crew proficiency, robust maintenance and security and force-protection measures. Maintenance undertaken by the Indian Navy enables the platforms to undertake sustained and long-range deployments, as also ensures operational availability during perceived escalatory phases.

Conventional Deterrence

The core of India's deterrence, other than against nuclear coercion, will remain centered on conventional deterrence. Deterrence by naval forces implies convincing the adversary that the desired gains of any misadventure will be denied, whilst retaliation would make the cost of aggression unacceptably high. The sub-strategies for conventional deterrence include capable force structure, presence, partnerships and signalling the cost of misadventure



Deterrence implies convincing the adversary that the desired gains of misadventure will be denied, whilst retaliation would make the cost of aggression unacceptably high.

Sub-Strategy 6.2 – Develop and Sustain a Capable and Credible Force

Capable and Credible Force. Potential adversaries would not be deterred by empty threats or rhetoric, but by the possession of capabilities that cannot be matched by the adversary. In order to keep the force structure relevant and effective against emerging threats, the Indian Navy has adopted an iterative and broader capability-driven threat-based approach for developing and maintaining a modern and balanced force. Towards this, the Navy incorporates the latest technologies to gain asymmetric advantage in niche domains, while avoiding over-reliance on any single capability. The MCPP acts as the guiding document for force structure and capability development. The quantum and type of force required to ensure credible deterrence also depends on the assessment of adversary's capabilities and analysis of emerging threats.

Sustenance and Surge Capacity. Sustenance and resource superiority are critical to deter an adversary across the conflict spectrum — from short, intense engagements, to protracted operations. A strong defence industrial base, capable of surging production in times of conflict, replenishing losses and restoring and reconstituting combat potential, is the foundation of this superiority. Developing and maintaining surge capacity i.e., the ability to rapidly scale defence production to meet the demands of active conflict, is a strategic priority that also serves as a credible deterrent. While

this is inherently a whole-of-government and whole-of-nation endeavour, the Indian Navy contributes actively through indigenous procurement; engagement with DRDO and research institutions; support to private sector industries, MSMEs and startups; and strengthening of indigenous defence industrial base through active institutional support.

Sub-Strategy 6.3 – Presence and Posture

Forward presence is an important element of conventional deterrence that enables political and military decision-makers to adopt proactive, rather than reactive, approaches to dealing with national security issues. However, presence without credible capability rooted in demonstration of readiness and resolve, risks being perceived as symbolic, rather than substantive. Accordingly, forward presence and posture are pursued towards enhancing active deterrence.

Presence is ensured by forward deployment of naval forces to demonstrate reach, sustainability and capability to deliver effects at place and time of choosing. These include surveillance and patrol missions, maritime exercises and operations, and port visits. Additionally, the persistent presence of the Indian Navy and other designated agencies in coastal and offshore zones – through surveillance, patrolling and coordinated maritime security operations – contributes to conventional deterrence by denying adversaries the ability to exploit vulnerabilities closer to coast.



A *Delhi*-class destroyer fires Surface-to-Surface Missile

Posture aims to shape the perceptions of potential actors by overt demonstration of capability, readiness and resolve whilst being forward deployed. This demonstration is based on the understanding of the potential adversary's intent, capability, risk analysis as well as prevailing strategic context. These actions include marking/ counter-marking, escorting, weapon firings and exercises, among others.

Sub-Strategy 6.4 – Enhance Partnerships, Jointness and Coordination

The increasingly complex security environment occasionally requires deterrence to be pursued in partnerships with FFCs. The Navy enhances partnerships in the maritime domain with like-minded nations on a continuing basis through bilateral, trilateral and multilateral constructs, as also operational exercises. While India does not pursue coalitions and alliances, the support of maritime partners, nonetheless, contributes to deterrence, both through strategic signalling and collaboration, such as in the fields of access, information-sharing, tactics, etc.

Pursuing jointness and integration within the Defence Forces and promoting inter-ministerial coordination, also augment the credibility of deterrence. This whole-of-government approach draws upon the full spectrum of national power, thereby enabling synergistic use of resources, synchronised crisis response and projection of a unified deterrent posture to adversaries.

Sub-Strategy 6.5 – Strategic Communication to Reinforce Deterrence

Strategic communication is an integral instrument of deterrence employed by the Indian Navy to signal resolve and capability, and convey unambiguously the costs and consequences of misadventure to potential adversaries. Its primary deterrence function is to ensure that an adversary's assessment of risks and costs of hostile action is under no illusion regarding the Indian Navy's capability, preparedness and will to respond, thereby raising the threshold for escalatory action and reducing the chances of miscalculation. Exercises and demonstration of capability serve as the principal instruments of this signalling, providing visible, credible and unambiguous communication of the Indian Navy's operational readiness and warfighting potential without recourse to declaratory rhetoric. Collectively, these efforts are oriented towards achieving information dominance – a condition in which the Indian Navy maintains decisive advantage in the information environment, reinforcing the credibility of deterrence and denying adversaries the informational basis for miscalculation or escalation.

Sub-Conventional Deterrence

Towards prevailing in NWNP, sub-conventional deterrence needs to remain credible, in order to deter non-state actors, with varying degrees of state sponsorship, from employing conventional/ sub-conventional means; irregular warfare or Grey Zone Operations (GZO); or any other actions or activities inimical to India's interests. Often, lack of clearly defined objectives among perpetrators, fluid organisation and extremist attitudes complicate effectiveness of deterrence.[110] The sub-strategies for sub-conventional deterrence include security of assets and readiness for reprisal actions, and are further amplified in the *Strategy to Prevail in Situations below Threshold of Conflict* outlined in Chapter 7.

Sub-Strategy 6.6 – Ensure Robust Security of Assets across domains (including cyber domain)

This sub-strategy is based on denying gains to adversaries attempting to reach their intended target, by instituting effective and robust security measures towards physical and digital protection of assets. Due to proliferation of low-cost technologies and its exploitation by non-state actors, the Indian Navy undertakes regular assessments of



Unmanned Aerial Vehicle *Drishti* 10 recovering after completing a surveillance sortie

potential threats in physical and cyber domains, followed by formulation of SOPs to mitigate such threats. This is followed by conduct of regular exercises to assess alertness levels and to identify capability gaps in countering such threats.

Sub-Strategy 6.7 – Establish Capacities and CONOPS for Reprisal Actions against Non-State Actors

The Indian Navy has adopted a calibrated reprisal mechanism, aimed at imposing costs, not only on non-state actors, but also their state sponsors, thereby deterring them from undertaking actions inimical to India's national interests. This mechanism is designed to signal resolve against all forms of aggression.

Synthesis

Objective, Missions, and Tasks. A summary of Objectives, Missions and Tasks vis-à-vis roles of the Indian Navy to *Deter Potential Adversaries* is tabulated below:-

Table 6.2: Objectives, Missions, and Tasks to Deter Potential Adversaries

Objective
- Deter conflict and coercion against India.

Tasks	Roles			
	Military	Diplomatic	Constabulary	Benign
Mission: Maintain Credible Sea-Based Nuclear Deterrent (*Linked Sub-Strategies: 6.1*)				
Operational readiness of SSBNs	✓			
Secure and redundant nuclear command, control and communications (NC3)	✓			
Training and certification of SSBN crews	✓			
Mission: Ensure Survivability of Strategic Assets (*Linked Sub-Strategies: 6.1*)				
Harbour defence and force protection of strategic assets	✓			
Strategic ASW and bastion protection/ sanitisation	✓			
Camouflage, Concealment and Deception (CCD)	✓			
Emissions Control (EMCON) and signature management	✓			

Tasks	Roles			
	Military	Diplomatic	Constabulary	Benign
Mission: Demonstrate Credible Capability and Resolve (*Linked Sub-Strategies: 6.2, 6.3, 6.7*)				
Combat ready forces	✓			
Fleet exercises	✓			
Presence and Surveillance Missions (PSM)	✓		✓	
Capability demonstrations/ Practice Missile Firings	✓			
Mission Based Deployments (MBD)	✓			
Doctrine and strategy	✓			
Joint operations and exercises with IA/ IAF	✓			
Mission: Maintain Maritime Domain Awareness (*Linked Sub-Strategies: 6.3*)				
Intelligence, Surveillance and Reconnaissance	✓			
Underwater Domain Awareness	✓			
Mission: Maintain Combat Readiness (*Linked Sub-Strategies: 6.2, 6.3, 6.6, 6.7*)				
Operational Sea Training	✓			
Operational Readiness Inspections	✓			
Mission: Strengthen Partnerships (*Linked Sub-Strategies: 6.3*)				
Bilateral and multilateral exercises	✓	✓	✓	
Coordinated Patrols	✓	✓	✓	
Information/ intelligence sharing/ MDA frameworks	✓	✓	✓	
Training and capacity building		✓		
Port visits and flag showing missions		✓		
Mission: Demonstrate Credible Sub-Conventional Response Capability (*Linked Sub-Strategies: 6.3, 6.5, 6.7*)				
Surveillance and interdiction exercises	✓		✓	
Special Forces demonstrations and exercises	✓			
Coastal and offshore patrol operations	✓		✓	
Joint exercises with Indian Coast Guard and State Marine Police	✓		✓	
Maritime Interdiction Operations and exercises	✓		✓	

Conclusion

The strategy to deter potential adversaries remains a cornerstone of maritime security and is a critical instrument in preserving stability in the maritime domain. The forms of deterrence elaborated in this chapter are applicable across the spectrum of conflict. While conventional and sub-conventional deterrence are most relevant during peace and NWNP, nuclear deterrence assumes greater salience during conflict. Credible deterrence enables effective management of the escalation ladder, shaping adversary behaviour and constraining hostile action. To remain credible, deterrence must be underpinned by a calibrated mix of capabilities, demonstration, resolve and targeted signalling. Should deterrence, nonetheless, fail, the ability to attain national objectives during NWNP and conflict, addressed in the succeeding two chapters, become paramount. ⚓

7 Strategy to Prevail in Situations below Threshold of Conflict



Maritime Security Objective addressed

⚓ Prevail in situations below the threshold of conflict.

Overview

Introduction

The emergence of the No War No Peace paradigm has impacted the contemporary security environment, necessitating a distinct strategy aimed at preserving the Indian Navy's strategic advantage in NWNP situations, whilst managing the risk of escalation. The NWNP environment represents a fluid landscape, in which competition, confrontation and conflict overlap, as states and other actors employ kinetic and non-kinetic measures to achieve national/ military objectives, often with the intent of avoiding breaching the threshold of conflict. The evolving complexity of such actions, characterised by sustained reliance of sub-threshold actions, necessitates the Indian Navy to articulate a *Strategy to Prevail in Situations below Threshold of Conflict* to dominate the NWNP space.

Considerations for Operating in NWNP

Before articulating specific sub-strategies for NWNP, it may be necessary to outline the nuances and key considerations for NWNP, as it would necessitate continuous operational readiness, the development of tailored capabilities and preparation for prolonged strategic competition, whilst carefully calibrating responses to avoid unintended escalation.

NWNP as an emerging facet of Inter-State Relations. The IMD-2025 highlights the spectrum of conflict in the contemporary milieu (reproduced on the next page). Within this spectrum, conditions of coexistence, cooperation, competition and confrontation coexist within inter-state relations, varying in intensity and form across time and context. NWNP, however, represents a space where competition and confrontation intensify short of declared conflict, making it a persistent attribute of contemporary geopolitics. Without a coherent strategy for this space, national interests become vulnerable to incremental coercion and subtle shifts in strategic balance. A well-articulated and deliberate strategy for NWNP is, therefore, important to safeguard national interests against erosion in the face of persistent calibrated actions that remain below the threshold of conflict.

NWNP requires integration of all Elements of National Power. A strategy for NWNP necessitates coordinated decision-making and integration of all elements of national power. While this is as relevant during conflict, as during NWNP, the latter transcribes a more nuanced state, where actions unfold under overlapping political, legal, informational and diplomatic constraints, within which responses

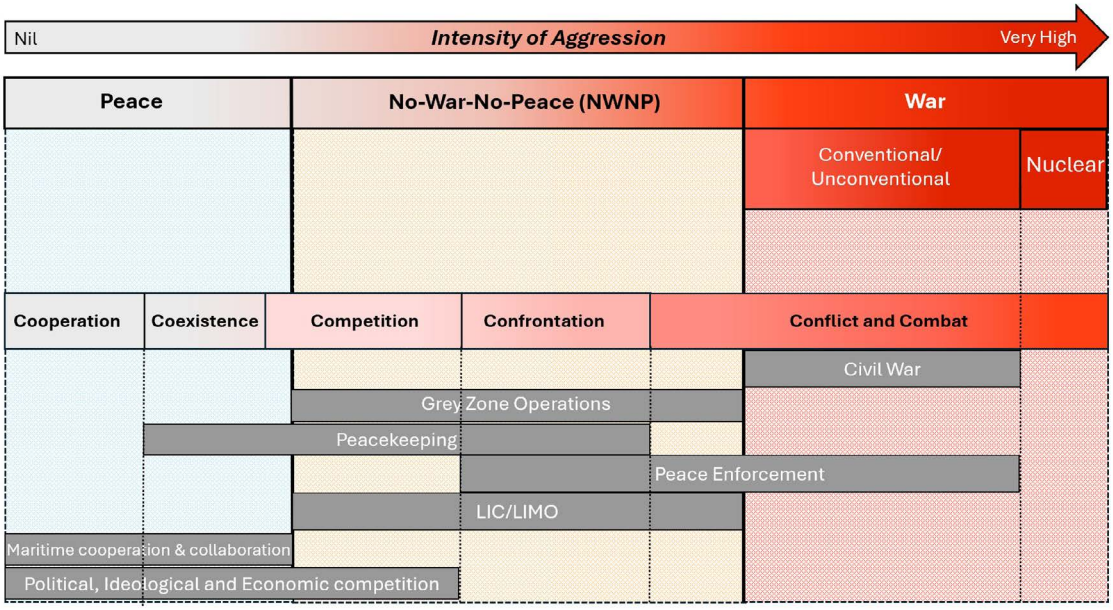


Figure 7.1: Spectrum of Conflict (Source – NSP 1.1)

must be synchronised across agencies and calibrated to avoid unintended escalation or outcomes. Further, each sub-threshold action by the adversary carries forethought, often demanding greater policy involvement, senior-leadership oversight and broader stakeholder participation, as much, if not more than military operations in conflict. Additionally, the inherent ambiguity of sub-threshold actions may require a distinct application philosophy, which may not always align with a Mission Command approach inherent or desirable in conflict situations.

NWNP as a Long-Term Campaign of Strategic Erosion. The NWNP context is seldom defined by clear victories or defeats; rather, it constitutes a long-term campaign aimed at gradual erosion of an adversary's strategic advantage. Instead of seeking decisive or immediate outcomes, activities in NWNP focus on shaping the environment, managing the tempo of interaction, accruing incremental advantages and converting tactical successes into enduring strategic advantage. States and other actors also deliberately employ ambiguity and resort to Grey Zone Operations[111] to complicate decision-making. These operations may lack fixed end-states and rely on persistent actions, narrative shaping and patience to foster a favourable long-term environment. NWNP, therefore, may demand a long-term perspective, rather than expectations of rapid or decisive outcomes.

NWNP requires Bespoke Options. NWNP necessitates a calibrated and diverse spectrum of response options designed to manage escalation while retaining the initiative. Since the objectives during NWNP may differ fundamentally from conflict

situations, options valid for regular conflict or full-fledged war, may or may not apply fully in NWNP. In conventional warfare, escalation broadly follows well-established patterns with clear thresholds and endgames; in NWNP, the aim is to compete, assert claims and maintain advantage, while, often, avoiding crossing of escalation lines that would trigger full-scale conflict. This requires response options that are precise, calibrated and often reversible, capable of signalling resolve, without creating irreversible momentum towards conflict. Military and naval instruments may, therefore, need to be more versatile and granular in their design.

NWNP requires Prevailing in Everyday Operations. NWNP environment is often marked by tactical stalemates that, if left unaddressed, gradually erode advantage over time. The absence of timely and proportionate responses to adversarial provocations encourages incremental shifts in the status quo, enabling opponents to consolidate gains. Consequently, such environments demand continuous vigil, doctrinal agility, technological application, periodic CONOPS refinements and sustained operational readiness, to ensure that routine interactions are not allowed to erode India's interests.

Core Enablers

The specific enablers relevant to the *Strategy to Prevail in Situations below Threshold of Conflict*, are as tabulated below:-

Table 7.1: Core Enablers: Strategies to Prevail in Situations below Threshold of Conflict

Core Enabler	Specific Attributes for Prevailing in No War No Peace
Capability Development	⚓ Development of diverse and scalable response options calibrated for NWNP scenarios. ⚓ Surge capacity and rapid scaling to sustain extended operations for NWNP contestation.
Networks	⚓ Secure channels for real-time coordination with civil maritime agencies.
Maritime Domain Awareness	⚓ Real-time dissemination mechanisms to enable timely decision-making at operational and strategic levels.
STRATCOM and IW	⚓ Countering adversary misinformation/ disinformation campaigns. ⚓ Documentation and evidence-gathering protocols to establish attribution and support legal/ diplomatic responses.
Maintenance	⚓ Enhanced readiness levels to sustain high operational tempo over extended durations.

Core Enabler	Specific Attributes for Prevailing in No War No Peace
Jointness, Integration and Whole-of-Nation Approach	⚓ Integrated tri-Service structures and mechanisms for coordinated response. ⚓ Joint doctrine/ primers on sub-threshold operations encompassing legal, diplomatic and military dimensions. ⚓ Development of specific RsOE and SOPs at tactical level for coordinated/ integrated response.

Sub-Strategies

The *Strategy to Prevail in Situations below Threshold of Conflict* rests on four sub-strategies that cater to various aspects of continuous situational assessment; developing diverse and scalable naval capabilities; integrated multi-stakeholder frameworks; and sustained readiness for decisive and swift response.

Sub-Strategy 7.1 – Develop Continuous Situational Assessment and Refinement

A perpetual cycle of threat assessment and evaluation across the Indian Navy's areas of interest is a key element of detecting emerging NWNP challenges, shifting adversarial postures and evolving regional dynamics. Speed in assessment and action is essential, since delayed recognition of shifting balance can lead to *fait accompli* situations, and loss of strategic advantage and initiative. This requires effective ISR across all domains, in coordination with all Defence Forces and national intelligence agencies, followed by detailed analysis to understand the intent of actors involved and its long-term security implications. The Navy, accordingly, pursues sustained operational planning and doctrinal refinements, and continually updates contingencies, tactics and SOPs based on observed adversary behaviour, technological developments and regional shifts. The *assessment-refinement cycle*, institutionalised as a core operational function, ensures that plans remain relevant and responsive, rather than static. This capability enables the Indian Navy to proactively address, rather than react to NWNP situations, maintaining initiative, particularly in prolonged competition.

Sub-Strategy 7.2 – Develop and Integrate Diverse and Scalable Naval Capabilities

Developing a diverse and scalable suite of capabilities, spanning conventional precision strike systems, area denial capabilities and symmetric/ asymmetric options, is imperative to ensure flexibility in responding to NWNP scenarios. This ensures that the Indian Navy

is able to calibrate force application across a graduated spectrum, from low intensity maritime operations to high intensity responses, without over-reliance on '*single-shot*'/ '*maximum effect*' weapons that could risk unintended escalation. Investment in emerging technologies, such as autonomous systems and artificial intelligence-enabled platforms, complements traditional platforms to maintain technological edge and operational superiority in prolonged competition.

Sub-Strategy 7.3 – Pursue Integrated Multi-Stakeholder Frameworks with Multi-Domain Integration

The Navy pursues institution of, and integration with, whole-of-government mechanisms and frameworks that enable alignment of naval options with broader GoI objectives. These institutional mechanisms aim at rapid decision-making and strategic messaging across all instruments of national power, while preserving operational flexibility and autonomy for time-sensitive operations that demand immediate response.

Sub-Strategy 7.4 – Sustained Readiness for Decisive and Swift Response

NWNP necessitates readiness to swiftly respond to adversary actions as they unfold – whether persistent grey zone coercion or sudden escalatory acts short of declared conflict. A decisive response is one that imposes tangible costs on the adversary, while denying the objectives of their action; thereby serving both as an immediate operational outcome and as a signal that reinforces deterrence for future contingencies. India's



MQ-9B Sea Guardian getting airborne for a surveillance mission.

stated policy that any act of terror will be responded – at a time, place and manner of choosing by India – provides the doctrinal foundations for this approach. Readiness for decisive and swift response is, therefore, paramount; delayed reaction risks ceding the initiative, allowing adversaries to achieve limited objectives, while also giving them time to prepare for anticipated reprisals.

Synthesis

Objectives, Missions, and Tasks. A summary of Objectives, Missions and Tasks vis-à-vis roles of the Indian Navy to *Prevail in Situations below Threshold of Conflict* is tabulated below:-

Table 7.2: Objectives, Missions, and Tasks to prevail in situations below threshold of conflict

Objective
- Prevail in situations below the threshold of conflict.

Missions / Tasks	Roles			
	Military	Diplomatic	Constabulary	Benign
Mission: Maintain Persistent Presence and Surveillance (*Linked Sub-Strategies: 7.1, 7.4*)				
PSM	✓		✓	
MDA	✓		✓	
ISR	✓		✓	
Coastal and offshore patrol operations	✓		✓	
Mission: Assert and Protect Maritime Sovereignty (*Linked Sub-Strategies: 7.4*)				
Protection of island territories	✓		✓	
Flag showing and presence operations	✓	✓		
Response to grey zone activities	✓		✓	
Mission: Readiness for Kinetic Operations (*Linked Sub-Strategies: 7.1, 7.2, 7.3, 7.4*)				
Forward Operating Base readiness	✓			
Graduated response options	✓			
RsOE for NWNP scenarios	✓			
Stand-off precision strike capabilities	✓			
Special Forces operations	✓			

Missions / Tasks	Roles			
	Military	Diplomatic	Constabulary	Benign
MIO	✓		✓	
Blockade and quarantine operations	✓			
Offensive/ defensive cyber operations	✓			

Conclusion

Prevailing in the NWNP spectrum demands a distinct approach that acknowledges the persistent and protracted nature of competition and confrontation below the threshold of conflict. It requires the Indian Navy to maintain continuous situational awareness; prevail in everyday operations through sustained presence; calibrated and proportionate response; and integrate actions across multiple stakeholders and domains. An effective NWNP strategy must be adaptive and context-specific, through scalable solutions tailored to evolving threats and operational environments. Central to such a strategy is the development and employment of diverse capabilities, enabling controlled application of maritime power, effective escalation management and the preservation of operational flexibility. ⚓

8 Strategy to Attain National Objectives during Conflict



Maritime Security Objectives addressed

- ⚓ Attain national objectives during conflict.
- ⚓ Protect India's territorial integrity, including Coastal and Offshore Interests, from threats emanating at, or from, the sea.

Overview

Introduction

India's desire for friendly and mutual co-existence, or promoting conditions of peace and security, may not be shared by other states or armed groups. In such a scenario, there remains the possibility that conflict is forced upon India. Since, nations – and not militaries – go to war, the military strategy for conflict would be determined jointly by the Defence Forces in coordination with other security agencies, and synergised at the national level. This strategy aims to counter and neutralise threats posed by aggressor states and armed groups, in accordance with the inherent right of self-defence and the national objectives outlined for the conflict.

The Indian Navy, on its part, shall remain responsible for attainment of national objectives from, or at, sea during conflict, which would determine the nature, scale and manner of the Navy's employment. The Navy would prosecute conflict in the maritime domain in keeping with the broad tenets described in this strategy, and directions provided by the Government from time-to-time, even as specific actions and methods may vary as per the operational situation. The strategy for conflict also supports and strengthens the primary strategy of deterrence against conflict and coercion; actions enunciated in strategy for NWNP also provide the foundations for, and transition into the strategy for conflict, in the event of escalation.

The broad contours of this strategy have been described under *considerations for conflict*, which outlines the contemporary strategic environment and factors shaping maritime conflict; and *actions during conflict* that highlight how the Indian Navy will be employed to safeguard national interests and counter adversaries at sea.

Considerations for Conflict

The broad tenets and nature of conflict remain enduring over time; however, the character of conflict continually evolves. Contemporary conflict is marked by increased complexity, rapid technological integration and emergence of newer domains of warfighting, elements of which were also outlined in Chapter 1. Few considerations for conflict are outlined below.

Geographical Factors. The factor of space would play a dominant role during a maritime conflict in the IOR. The vast expanse of the Indian Ocean, surrounded by key maritime choke points, would require the Navy to maintain surveillance over large

Areas of Interest, even if *Areas of Operations* were limited to a smaller geography. The ISR effort would require integration of air and space-based assets and coordination with various national agencies. Time and resource consuming effort would also be required to protect trade and commerce across the wider Indo-Pacific.

Character of Conflict. Persistence of hybrid threats and Grey Zone warfare, alongside conventional warfare, would require the Navy to possess a balanced force mix. Future conflicts would invariably be technology driven, with hypersonic missiles, precision munitions, low-cost uncrewed systems, autonomous systems, AI enabled targeting and decision-making systems, along with cyber warfare capabilities being significant determinants. Information Operations by the adversary would require robust campaign to win the battle for the minds.

Duration and Intensity of Conflict. The duration of conflict shall remain an important factor and is likely to be driven by political, rather than military factors alone. The absence of a clearly articulated 'political aim of war', or 'war termination' strategy, may make it difficult for a military planner to predict the likely duration of conflict. Even though a short and swift conflict is preferred to attain national objectives, the adversary, or circumstances, may prolong the conflict. Accordingly, strategy must account for the possibility of conflicts being prolonged. Within this, adequate holdings of ordnance, ammunition, missiles and interceptors, along with the ability to surge production, are critical to sustaining operations across both short and protracted conflicts, as outlined earlier in the context of operational logistics and deterrence. The economy of conflict – in terms of expenditure rates, replenishment timelines and cost of engagement – also demand careful calibration. While this imperative is highlighted here in the context of conflict, it is equally relevant in the No War No Peace continuum, where sustained readiness and credible stockholding underpin deterrence and the ability to transition rapidly from competition to conflict.

Preparedness for Conflict. In the absence of clearly defined inflection point to mark the transition from confrontation to conflict, it would be imperative to undertake a range of calibrated measures, to maintain operational preparedness and enable swift transition in case of a full-fledged conflict. These would require effective employment of all enablers mentioned in Chapter 3.

Core Enablers

The specific enablers relevant to the *Strategy to Attain National Objectives during Conflict*, are tabulated on the next page. The core enablers elaborated in chapter 7 for

strategy to prevail in situations below the threshold of conflict are equally applicable to, and further amplified in their criticality, during conflict:

Table 8.1: Core Enablers: Strategies to Attain National Objectives during Conflict

Core Enabler	Specific Attributes for attaining National Objectives during Conflict
Capability Development	⚓ Balanced force-mix enabling the Navy to pursue distributed and multi-domain operations during conflict. ⚓ Doctrines, strategies and Tactics, Techniques and Procedures (TTPs) incorporating emerging concepts and contemporary operational developments.
Networks	⚓ Survivable and redundant command and control architectures.
Maritime Domain Awareness	⚓ Operational, national and regional MDA to enable comprehensive awareness of kinetic, as well as non-kinetic actions. ⚓ Targeting-quality surveillance and reconnaissance.
STRATCOM and IW	⚓ Amplification of impact of kinetic action at various levels of warfare. ⚓ Countering adversary misinformation/ disinformation.
Maintenance	⚓ Frameworks and capabilities for expeditious battle-damage repairs, to enable swift restoration of core combat capabilities.
Op Logistics	⚓ Activation of war reserves. ⚓ Geographically dispersed logistics hubs. ⚓ Robust expeditionary logistics architecture to maintain deployed forces in distant theatres through replenishment at sea, forward logistics nodes/ MLCs and access to basing and port facilities.
Jointness, Integration and Whole-of-Nation Approach	⚓ Joint targeting and fires coordination across services.

Sub-Strategies

The *Strategy to Attain National Objectives during Conflict* rests on five sub-strategies that cater to various aspects of protecting trade and energy; responding effectively to hostile actions; power projection; coastal and offshore defence; and trade interdiction.

Sub-Strategy 8.1 – Security of Trade, Energy and Critical Commodities

Protection of Indian trade, security of energy and uninterrupted flow of critical commodities when necessary, is a core tasking of the Indian Navy. The complexity of threats to India's trade and energy has increased due to proliferation of hybrid threats, long-range vectors and relative transparency of the oceans. Given the breadth and complexity of these tasks, effective security of trade, energy and critical commodities demands close coordination with multiple national stakeholders, including relevant ministries, intelligence agencies, the shipping industry and port authorities. The Navy undertakes four broad actions to ensure security of trade, energy and critical commodities:-

- First, the determination of any change required to sea routes, in relation to their location, routeing points, traffic and timing, as per the nature, areas and type of threats envisaged.

- Second, the promulgation of selected sea routes for Indian and foreign shipping, operating to or from Indian harbours. This will be done by Naval Control and Guidance to Shipping (NCAGS), indicating the preferred sea routes based on prevalent threats and availability of suitable escort/ protection.

- Third, the measures to ensure safety and security of shipping carrying trade, energy and critical commodities along our SLOCs, including physical protection through provision of escorts, if needed.

- And, fourth, to undertake sustained offensive action by seeking and neutralising enemy units to achieve Sea Control, as necessary, for safe transit of India-bound and India-relevant trade, energy, and critical commodities.

Sub-Strategy 8.2 – Swift and Overwhelming Response

The ability to respond swiftly, and with overwhelming force, to attain national objectives during conflict is guided by the principles of *Offensive Action* and *Concentration of Force* (among others), which aim to concentrate kinetic and non-kinetic effects towards defined objectives with speed, mass and precision. Accordingly, the Indian Navy aims to rapidly transition from peace and NWNP conditions, to conflict situations, with a focussed plan of manoeuvring forces into operational areas to effect surprise and seize the initiative at the outset.



A *Kolkata* class destroyer escorting a merchant vessel

Toward this, contingency response frameworks minimise decision latency. These include decision-matrices and aspects of international humanitarian law and the laws of armed conflict. Targeting during conflict is undertaken in a joint, precise and synchronised manner in concert with the Indian Army and the Indian Air Force to maximise operational effects.

The Indian Navy leverages the framework of Multi-Domain Operations (MDO), to integrate capabilities across cyber, space and cognitive domains with kinetic action to achieve compounding operational effects across the battlespace.[112] In addition to the Defence Forces, the Navy also coordinates with non-military national capabilities to aggregate combat power across all domains.

The ability to deliver swift response is aimed at gaining the initiative, which is, thereafter, retained and exploited. Escalation dominance is maintained in coordination with the overall national effort, by calibrating the area, scale, intensity and tempo of operations, whilst countering adversary actions. The Indian Navy endeavours to

maintain a calibrated suite of response options across the escalation ladder, ensuring that each level of adversary escalation is met with a proportionate and deliberate counter-action that signals both capability and resolve without ceding the initiative. Coordination with the Indian Army, Indian Air Force and national authorities ensures that maritime escalation management remains coherent with overarching strategic direction, whilst preserving the flexibility to respond decisively when required.

Sub-Strategy 8.3 – Power Projection Ashore

Power projection ashore is principally exercised through maritime strike (surface/ sub-surface/ air vectors and assets) and the landing/ insertion of forces through amphibious operations and sea-lift capabilities. Contemporary littoral environments present a complex and contested operational space, characterised by GPS denial, satellite communications disruption, AI-spoofing and logistics interdiction, apart from the presence of adversary's shore/ sea based strike vectors, assets, mines, etc.

Accordingly, the primary means for achieving power projection is through potent, balanced naval task forces, comprised of fleet assets; integral and shore-based maritime



Aircraft Carriers INS *Vikrant* and INS *Vikramaditya* exercise at sea

air assets; sub-surface assets; and Special Forces; with precision long-range strikes from ashore or sea. Amphibious operations may be undertaken by the Indian Navy as per the prevailing operational scenario, in close coordination with the Indian Army and the Indian Air Force. This would require achieving sea control within the Amphibious Objective Area (AOA), coupled with Favourable Air Situation (FAS) for extended durations, to enable the Amphibious Task Force to project, land and sustain combat power ashore. Transition of the objective area and link-up with joint forces ashore is coordinated within the overarching joint operational framework.[113]

Sub-Strategy 8.4 – Defending Coastal and Offshore Interests

Coastal security and coastal defence, are distinct but complementary concepts, details of which have been outlined in Chapter 5. While coastal security constitutes a peacetime function focussed on the protection and stability of coastal waters, coastal defence is the military expression of that imperative during conflict. The institutional relationships, coordination mechanisms, domain awareness architecture and inter-agency partnerships outlined during peacetime coastal security frameworks, provide the foundations upon which coastal defence is built. Continuity between the two, in terms of personnel, procedures and inter-agency familiarity, is essential in ensuring a seamless transition from peacetime coastal security, to coastal and offshore defence during conflict.

Coastal and offshore defence aims to deny adversaries access to India's littoral waters, protect maritime approaches to ports and naval bases, ensure unhindered movement of own assets and traffic in/ out of bases/ ports and ensure continued functioning of economic activities in coastal waters.

Actions for ensuring coastal and offshore defence are carried out by the Indian Navy in synergy with the Indian Army, Indian Air Force, Indian Coast Guard and other security agencies. Air defence of India's coastal, offshore and shore-based naval assets is provided by the Indian Air Force. Further, designated ICG assets will operate under Naval Operational Control during conflict and will comply with all sailing orders, Op Directives and orders issued from time-to-time. Effective coastal and offshore defence during conflict also require sustained coordination with the wider maritime community – encompassing the shipping industry, port authorities, fishing communities, offshore installation operators, lighthouse operators and coastal communities, whose awareness, cooperation, and timely reporting constitute a vital layer in the overall coastal and offshore defence architecture.



An Amphibious Exercise in progress

Sub-Strategy 8.5 – Trade Interdiction and Commodity Denial

Trade interdiction and commodity denial are complementary instruments of maritime conflict, aimed at degrading an adversary's warfighting capacity, constraining its economic resilience and compressing its options over the course of hostilities. *Trade interdiction* focusses on deliberate disruption, restriction or severance of an adversary's maritime trade and commerce, whilst *commodity denial* targets specific strategic commodities – energy, critical raw materials, defence-related imports and dual-use goods – upon which an adversary's national economy and war effort depends. Together, these instruments translate naval power into sustained strategic economic pressure, complementing kinetic operations across other domains.

The rationale for trade interdiction and commodity denial rests on the recognition that modern conflicts are as much contests of economic endurance, as of military capability. Denial of energy imports leads to progressive degradation of adversary industrial output and military capability. Interdiction of defence materiel, military supplies and strategic commodities attrits the adversary's ability to reconstitute

losses, sustain operational tempo and maintain the industrial base that underpins its war effort. Disruption of export revenues compounds these effects by constraining the adversary's capacity to finance hostilities over time. Collectively, these actions are designed to impose costs that accelerate termination of conflict on terms favourable to India.

Synthesis

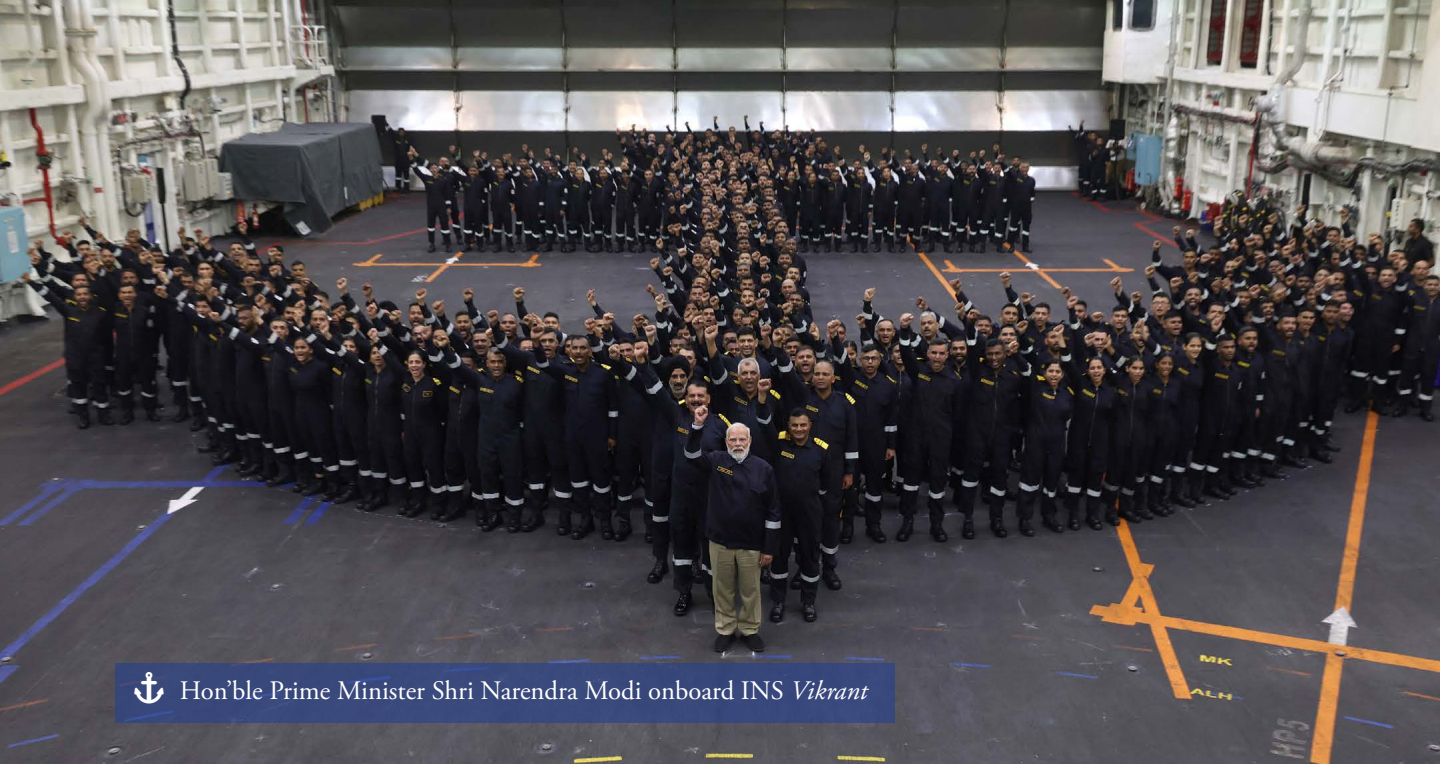
Objective, Missions, and Tasks. A summary of Objectives, Missions and Tasks *vis-à-vis* roles of the Indian Navy to *Attain National Objectives during Conflict* is tabulated below:-

Table 8.2: Objectives, Missions, and Tasks to Attain National Objectives during Conflict

Objectives
- Attain national military objectives during conflict.
- Protect India's territorial integrity, including coastal and offshore interests, from threats emanating at, or from, the sea.

Tasks	Roles			
	Military	Diplomatic	Constabulary	Benign
Mission: Exercise Sea Control (*Linked Sub-Strategies: 8.1, 8.2, 8.3, 8.4, 8.5*)				
ISR	✓			
Anti-Submarine Warfare (ASW)	✓			
Anti-Surface Warfare (ASuW)	✓			
Anti-Air Warfare (AAW)	✓			
Electronic Warfare (EW)	✓			
Cyber operations	✓			
Maritime strike operations	✓			
Mission: Exercise Sea Denial (*Linked Sub-Strategies: 8.2, 8.3, 8.4, 8.5*)				
Submarine operations	✓			
Offensive/ defensive mining	✓			
Patrol	✓			
Maritime Exclusion Zone	✓			
Special Forces operations	✓			

Tasks	Roles			
	Military	Diplomatic	Constabulary	Benign
Mission: Power Projection (*Linked Sub-Strategies: 8.2, 8.3*)				
Carrier-based air operations	✓			
Naval Gunfire Support (NGS)	✓			
Land attack operations	✓			
Mission: Expeditionary Operations (*Linked Sub-Strategies: 8.2, 8.3*)				
Amphibious operations	✓			
Ship-to-shore manoeuvre	✓			
Vertical envelopment	✓			
Special Forces operations	✓			
Mission: SLOC Interdiction and Protection (*Linked Sub-Strategies: 8.1, 8.4, 8.5*)				
Convoy operations	✓			
Escort operations	✓			
ASW along SLOCs	✓			
Protection of critical maritime infrastructure	✓			
NCAGS activities	✓			
Maritime interdiction operations (MIO)	✓			
Blockade	✓			
Mission: Seaward Defence/ Coastal and Offshore Defence (*Linked Sub-Strategies: 8.4*)				
War Watching Organisation	✓			
Harbour defence/ Local Naval Defence (LND)	✓			
Mine Counter Measures (MCM)	✓			
Seaward defence of island territories	✓			
Coastal surveillance and defence operations	✓			
ASW, ASuW, AAW, EW in littorals	✓			
Coordination with coastal batteries and IAF Air Defence (AD) systems	✓			
Maritime strike operations in littorals	✓			



Hon'ble Prime Minister Shri Narendra Modi onboard INS *Vikrant*

Conclusion

The strategy for conflict is centred on achieving national objectives by employing kinetic and non-kinetic means, synergised with the IA, IAF, ICG and other government agencies. In doing so, the strategy takes into consideration the evolving character of conflict and focusses on various actions required by the Indian Navy during conflict. A key factor for successful implementation of this strategy is the Navy's ability to adapt training, staff procedures and future acquisitions to address threats in order to safeguard national maritime interests.

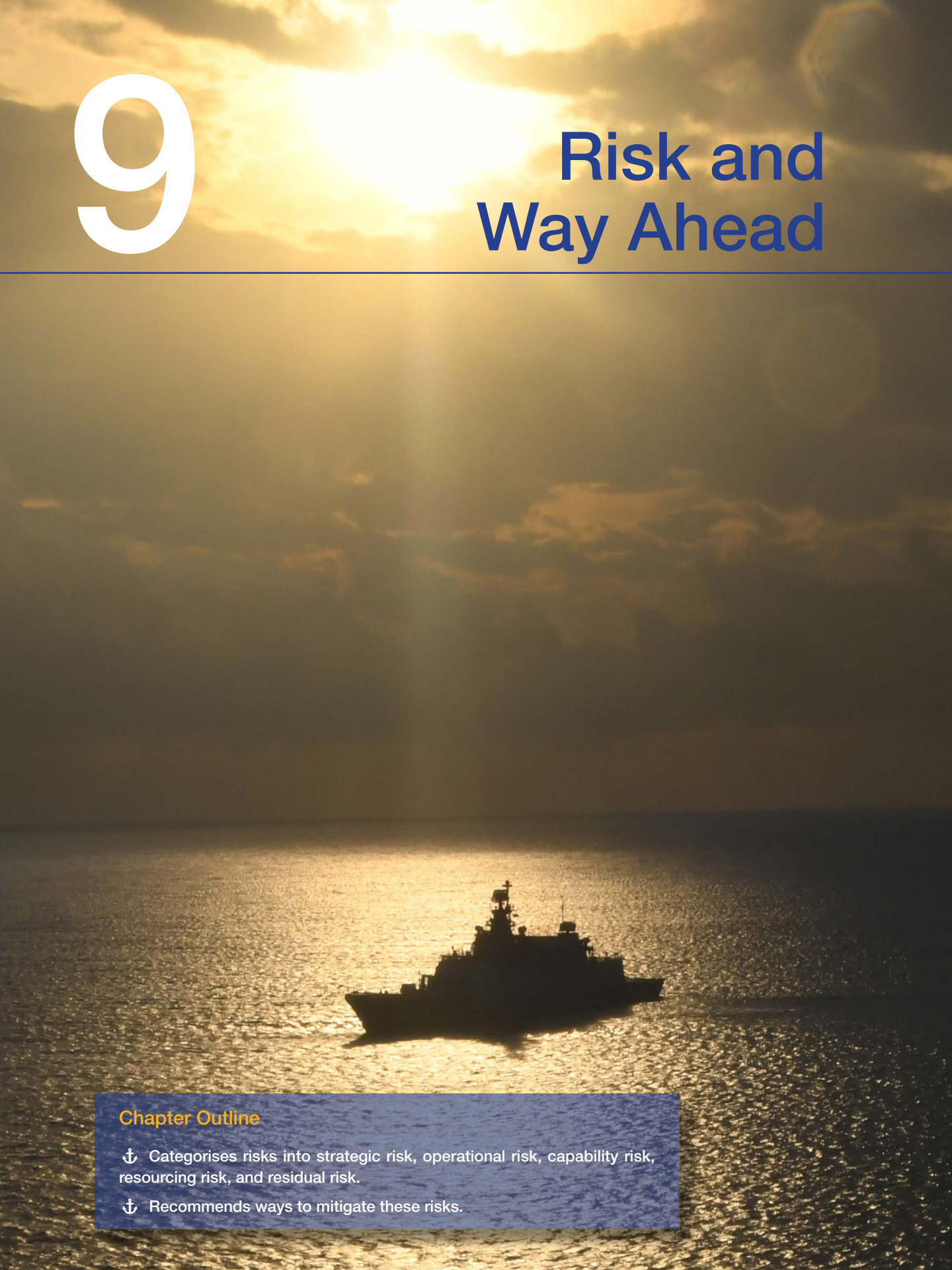
Risk

⚓ *Risk exists as the gap between what is intended, what is planned and what can actually be delivered with available means*





9 Risk and Way Ahead



Chapter Outline

- Categorises risks into strategic risk, operational risk, capability risk, resourcing risk, and residual risk.
- Recommends ways to mitigate these risks.

Risk and Risk Management

Strategy is, at its core, an exercise in calculated risk. The ends-ways-means construct that underpins this document represents the Indian Navy's considered judgment of how maritime security objectives can best be attained with available and projected resources. However, no strategy operates in conditions of certainty. Events and factors, such as the evolution of strategic environment, adversary capabilities, resource limitations, etc., may accentuate and exacerbate uncertainty. This chapter identifies the principal categories of risk associated with this strategy, assesses their implications, and articulates the framework through which they are managed. Risk assessment is an integral component of strategic planning, towards making strategy forward-looking in the face of both anticipated and unanticipated challenges.

Strategic Risk

Strategic risk is the risk from incorrect or incoherent underlying strategic assumptions, or from external shifts that invalidate the strategic calculus. The foremost strategic risk is that of adversary capability development outpacing Indian Navy's ability to counter such threats. A related concern is that assumptions regarding threat sequencing or the principal actors who may orchestrate actions against India may combine to pose a multi-front contingency. Technological disruption, particularly in Artificial Intelligence, autonomous systems and robotics, may lead to existing operational concepts and tactics becoming less effective during the currency of this document.

Risk Mitigation — Strategic Risk. To mitigate strategic risk, the Indian Navy envisions the following measures:-

- Periodic strategy review and continuous assessment of the threat environment to ensure the ends-ways-means balance remains coherent and achievable.

- Continuous horizon scanning, intelligence assessments and institutionalised mechanisms to identify risk, before it crystallises into a tangible threat.

- Processes for revision of force development priorities, reallocation of capability investments and recalibration of strategic partnerships in response to emerging circumstances.

- Regular refinement of operational and tactical concepts, as technological and geopolitical conditions evolve.

- Sustained engagement with FFCs to ensure partnership frameworks remain responsive to geopolitical shifts.

Operational Risk

Operational risk is the risk that the chosen ways i.e. the sub-strategies and objectives/ missions/ tasks elaborated in this document, prove insufficient or unavailable when required. A linked operational risk is that No War No Peace environment blurs the line between signalling and conflict initiation, making miscalculation or unintended escalation difficult to guard against. Operating effectively in denied and contested environments is a further concern, particularly where adversary cyber, space and electronic warfare capabilities have the potential to degrade networks and communication architectures. Current operational concepts may also prove inadequate against new methods of warfare and grey zone/ unconventional warfare measures not fully anticipated at the time of drafting of this document. Coordination failures between the Defence Forces under various conditions, particularly in the early stages of a conflict, could be encountered, before established inter-Service and inter-agency mechanisms are fully activated.

Risk Mitigation — Operational Risk. To mitigate operational risk, the Indian Navy envisions the following measures:-

- Rigorous exercises and war-gaming to stress-test operational concepts and identify coordination gaps before they manifest in operations.
- Development of redundant and resilient communication architectures to sustain command and control under degraded conditions.
- Pre-approved contingency frameworks that reduce decision latency and ensure forces are ready to act with speed and authority from the outset.
- Sustained investment in joint planning and coordination mechanisms within the evolving theaterisation framework to reduce inter-Service coordination risk.
- Ensuring doctrinal frameworks remain responsive to emerging threats and warfare changes, through structured doctrinal review processes.

Capability Risk

Capability risk encompasses the possibility that the Indian Navy's force levels, platform availability, currency of technology across platforms and systems, or human resources become insufficient to execute the sub-strategies and attain maritime security objectives across the five strategies identified. Of all categories of risk, those bearing on force levels,

operational readiness and human resources, are likely to prove the most consequential. Shortfalls against planned force requirements, the challenge of sustaining platform availability and shortage of specialists in Cyber, Space and Artificial Intelligence domains could, each, constraint the execution of this strategy.

Risk Mitigation — Capability Risk. To mitigate capability risk, the Indian Navy envisions the following measures:-

- Comprehensive force planning and development through the MCPP, ensuring sequenced capability investments as per strategic requirements.

- Deliberate force structuring decisions emphasising capability diversity and resilience, reducing dependence on any single platform type or capability domain.

- Sustained investment in indigenous defence research and development to maintain self-reliance and *Atmanirbharta*.

- Focussed human resource development in emerging and specialist domains, to address skill gaps commensurate with evolving operational and technological requirements.

- Regular operational readiness assessments to identify and address force availability gaps before they affect operational capability.

Resourcing Risk

Given the sustained fiscal support by the GoI, resourcing risk in the Indian naval context is less a function of budgetary constraints, than dependencies on external suppliers and industrial limitations that affect the Navy's ability to develop, sustain and scale capabilities. While the Indian Navy will continue to grow in consonance with maritime interests of India, the principal resourcing risks include dependence on overseas sources for critical technologies, components and systems that remain beyond current domestic industrial capacity; the risk of technology denial, export control regimes and supplier nation policy shifts restricting access to essential defence technologies; limitations in domestic industrial capacity to surge production, absorb complex technology transfers, and deliver platforms and systems at the scale and pace required; and the concentration of critical manufacturing and maintenance capabilities in a limited number of facilities, creating systemic vulnerabilities in the event of targeted disruption.

Risk Mitigation — Resourcing Risk. To mitigate resourcing risk, the Indian Navy envisions the following measures:-

⚓ Sustained impetus to indigenisation, handholding systems development in industry, deeper industry/ academia partnerships and reducing overseas technology and component dependencies.

⚓ Diversification of technology partnerships and supplier relationships to reduce single-source dependencies for critical systems.

⚓ Sustained institutional support to private sector shipyards, defence manufacturers and MSMEs to broaden and deepen domestic industrial capacity.

⚓ Active engagement in technology transfer arrangements that build enduring domestic capability rather than transient assembly capacity.

⚓ Development of strategic stockpiles of critical ordnance, components and consumables to act as a buffer against supply chain disruptions in NWNP and conflict scenarios.

Residual Risk Review

Residual risk, viz. the risk that remains after all mitigation measures have been applied, is an accepted feature of strategic planning and reflects the inherent uncertainty of the operating environment. The Navy's response to residual risk rests on operational depth, redundancy across critical capability areas, and an institutionalised capacity for learning and adaptation at all levels.

In addition, the Indian Navy Maritime Security Strategy is conceived as a living document, designed to evolve in consonance with the strategic environment, rather than remain static over its currency. Core sections may undergo refinements as deeper shifts in the threat landscape, technological paradigm or geopolitical context warrant, ensuring that the strategy remains relevant and resilient. Periodic reviews, triggered either by scheduled revision cycles or by significant changes in the strategic environment, adversary capabilities or resourcing assumptions, provide the institutional mechanism through which the ends-ways-means-risk balance is continuously assessed and, where necessary, recalibrated.

Way Ahead

This strategy document represents the point of germination, rather than the culmination, of the strategic planning process. It provides the overarching framework within which constituent strategies, operational plans, doctrines, primers and standard operating procedures must be developed to translate strategic intent into actionable guidance. Each sub-strategy would invariably translate into derivative documents, guidance or practices, as the case may be, in order to align with, and draw coherence from, the parent strategy. The efficacy of this strategy will ultimately be measured not by its articulation alone, but by the rigour with which it is operationalised through these subordinate instruments and internalised across the organisation.

The way ahead for the Indian Navy lies in maintaining a balanced, credible and responsive maritime force – one that is capable of deterring aggression, managing crises and shaping the maritime environment in India's favour, while remaining prepared for transitions in the character of conflict. By aligning operational readiness with strategic foresight, strengthening integration across agencies and domains and continuously adapting to emerging risks, the Indian Navy will remain central to safeguarding India's maritime interests in the decades ahead. In an era of persistent competition and uncertainty, the enduring imperatives for the Navy remain clear: **to be Combat Ready, Credible, Cohesive and Future Ready**. ⚓

Notes

Chapter 1

1. Headquarters Integrated Defence Staff (HQIDS), Joint Doctrine Development Process (2021), 19-20.
2. HQIDS, Joint Doctrine Development Process, 20; NHQ, Doctrine and Concept Development Handbook (2025), 8 defines 'Strategy', as an overall plan to move from the present situation to a desired goal in a given scenario. Conceptually, one may define strategy as the relationship among 'ends', 'ways' and 'means'. 'Ends' are the objective or goals sought; 'means' are the resources available to pursue the objective; and 'ways' are how one organises and applies the resources. Strategy flows from policy, duly underpinned by a doctrine.
3. HQIDS, Joint Doctrine Indian Armed Forces (JDIAF-2017), 3; NHQ, Indian Maritime Doctrine (2025), 5-6; See also National Security Advisory Board (NSAB), "Draft Report of National Security Advisory Board on Indian Nuclear Doctrine" (New Delhi: Government of India, August 17, 1999), para. 1.2, https://www.legal-tools.org/doc/70efe4/pdf/. This document was released to the public by the NSCS to encourage transparency and a "shared understanding" of India's strategic objectives and security environment before formal adoption. The report defines India's primary objective as achieving "economic, political, social, scientific and technological development within a peaceful and democratic framework," requiring "an environment of durable peace and insurance against potential risks to peace and stability."
4. HQIDS, JDIAF (2017), 2; NHQ, IMD (2025), 6.
5. HQIDS, JDIAF (2017), 3; NHQ, IMD-2025, 7.
6. Ibid.
7. Indian Navy's evolving maritime doctrine and strategy have been articulated through a series of foundational documents, including, Maritime Strategy for India (1989-2014) (1988), Freedom of the Sea: India's Maritime Strategy (2006), India's Maritime Military Strategy (2007), Indian Maritime Doctrine (2009, followed by updated versions in 2015 and 2025) Indian Maritime Security Strategy (2015).
8. NHQ, *IN* Vision – 2047.
9. Articulation of India's Maritime Interests may change post promulgation of India's National Maritime Security Strategy.
10. Press Information Bureau (PIB), "India's GDP Surge: Driving the Growth Story", (August 30, 2025).

Chapter 2

11. Oxford English Dictionary, s.v. 'influence' and 'imperative'. 'Influence' is defined as, "the effect that somebody/ something has on the way a person thinks or behaves or on the way that something works or develops", while 'imperative' denotes something "of vital importance; requiring immediate attention or action".

12. Survey of India. 'Length of Coastline'; Survey of India, 'Number of Offshore Islands and Rocks/ Islets in India' (August 10, 2023).
13. National Centre for Polar and Ocean Research, Ministry of Earth Sciences, Government of India (GoI), 'Extended Continental Shelf Programme in India". In 2009, India submitted a claim to the Commission on the Limits of the Continental Shelf (CLCS) for an Extended Continental Shelf (ECS) beyond its Exclusive Economic Zone (EEZ), covering three regions: the Eastern Offshore Region comprising Eastern Offshore Region in the Bay of Bengal and the Western Offshore Region of Andaman Islands, and the Western Offshore Region in the Arabian Sea, seeking to add approx 1.2 million sq kms of Continental Shelf. The Arabian Sea segment overlapped with the Sir Creek dispute, leading to Pakistan's objection in 2021. The CLCS rejected this portion in 2023, but permitted modified submissions. In 2025, India restructured the Western claim into two partial submissions. The first covering the northern and central Arabian sea, to exclude the disputed area; and secondly, to secure an uncontested 10,000 sq. km in the Central Arabian Sea.
14. While SAGAR's geographical scope covered the Indian Ocean Region (IOR), and objectives entailed maritime security, capacity building, and blue economy in the IOR; MAHASAGAR covers the geographical scope of the Global South (including Africa, ASEAN, and Latin America), and aims to foster global partnerships, shared prosperity, and security across the oceans.
15. Ministry of External Affairs (MEA) Website, GoI, "English translation of Press Statement by Prime Minister Narendra Modi during the India – Mauritius Joint Press Statement", (March 12, 2025).
16. PIB. "Sagarmanthan 2024: India's Maritime Vision", (November 19, 2024).
17. PIB. "Maritime Amrit Kaal Vision 2047", (January 02, 2024).
18. MEA website. "Overseas Indian Population", (March 21, 2026). https://www.mea.gov.in/population-of-overseas-indians.htm
19. PIB, "English rendering of PM's address at the Maritime Leaders Conclave in Mumbai", (October 29, 2025); PIB, "India Ranks Among Top 3 Global Suppliers of Seafarers with 3 Lakh Workforce", (September 26, 2025).
20. Events in recent years have necessitated evacuation of Indians from foreign countries at short notice. Some of these include Operation Sindhu (June 2025, to evacuate Indian nations from conflict zones in Iran and Israel), Operation Samudra Setu (two-phase operation to repatriate Indian citizens in the onset of COVID-19), and Operation Ganga (Feb-Apr 2022, to evacuate Indian citizens from war-torn Ukraine). For more, see, www.indiannavy.gov.in/
21. PIB, "Casting Nets, Catching Success", (February 15, 2025).
22. Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, Annual Report 2024-25 for FY 2023-24, 13.
23. Department of Fisheries, Annual Report 2024-25, 15.
24. PIB, "Cabinet Approves 'Pradhan Mantri Matsya Sampada Yojana", (May 20, 2020).
25. Ministry of Petroleum and Natural Gas (MoPNG), Annual Report 2024-25, 41-42; National Crude Oil production was 28.7 MMT of which on-land production accounted for 13.61 MMT and offshore accounted for 15.09 MMT. The total production of Western Offshore was 12.47 MMT (43.3% of total national crude oil production).

26. MoPNG, Annual Report 2024-25, 42, 43. Natural Gas production was 36.11 BCM of which on-land production accounted for 10.1 BCM and offshore accounted for 25.9 BCM. The total production of Western Offshore was 14.5 BCM and Eastern Offshore is 11.2 BCM.
27. MoPNG, "India's Oil & Gas Ready Reckoner Oil and Gas information at a Glance FY 2025-26", 3.
28. Ministry of Mines, "Unlocking India's Mineral Wealth: Information Brochure on Offshore and Onshore Mineral Block Auction", (2024), 6.
29. PIB. "Mineral Exploration Under NMEP", (March 26, 2025).
30. PIB, "Parliamentary Question: Deep Sea Exploration for Minerals, Oil and Natural Gas", (December 04, 2025). At present, the GoI has three contracts with the International Seabed Authority (ISA), one signed in 2002 for the exploration of polymetallic nodules (PMN) in the Indian Ocean Basin over an area of ~75,000 sq km, and another for polymetallic sulphides (PMS) over an area of 10,000 sq. km each in the Central Indian Ridge (CIR) region and Carlsberg Ridge, respectively in the Indian Ocean.
31. International Seabed Authority Press Release, "The Government of India submitted two applications for approval of plans of work for seabed exploration in the Indian Ocean", (January 18, 2024).
32. PIB, "Deep Ocean Mission. Energy and Environment", (August 17, 2025).
33. PIB, "Year End Review 2023 of Ministry of New and Renewable Energy", (January 03, 2024).
34. Ministry of New and Renewable Energy, Annual Report 2024-25, 39.
35. PIB. "Power Minister Shri RK Singh approves proposal to declare ocean energy as Renewable energy", (August 22, 2019).
36. The term, 'maritime economy' as used in this document encompasses the broad spectrum of India's economic interests in the maritime domain, including blue economy activities, seaborne trade and shipping, energy security, critical supplies and essential commodities, overseas maritime investments, and maritime corridors. It is distinct from, though inclusive of, the OECD's definition of 'ocean economy', which describes it as, "the sum of the economic activities of ocean-based industries, together with the assets, goods, and services provided by the marine ecosystems". The term, 'marine economy', is employed here in a wider context, extending beyond ocean-based activities to include the trade, energy, and supply chain dimensions that depend upon the maritime domain for their sustenance and security". See Organisation of Economic Cooperation and Development, The Ocean Economy in 2030 (Paris: OCED Publishing, 2016), https://doi.org/10.1787/9789264251724-en; Virdin et al, "The Ocean 100: Transnational Corporations in the Ocean Economy," Sciences Advances 7 (3), (2021).
37. Ministry of Earth Sciences, Government of India, "Ocean of Opportunities: Harnessing India's Blue Economy for Sustainable Growth", (2025), 8.
38. Ministry of Earth Sciences, GoI, "Blue Economy. A Draft Policy Framework" (2020), and NITI Aayog, "India's Blue Economy – Strategy for Harnessing Deep-Sea and Offshore Fisheries", (2025).
39. MoPSW, GoI, Annual Report 2025-26, 4-6.
40. PIB, "Maritime India - From Vision 2030 to Amrit Kaal 2047", (October 26, 2025)

41. MoPSW, GoI, Annual Report 2025-26, 10; PIB, "Maritime India: From Vision 2030 to Amrit Kaal 2047", (October 26, 2025).
42. MoPSW, GoI, "Statistics of India's Ship Building and Ship Repairing Industry 2023-24", (2024). During the Financial Year 2023-24, Indian owned ships/ vessels carried 4.11% of India's overseas trade. The remaining share, approximately 95%, is inferred as being carried by foreign-owned or foreign–flagged vessels.
43. MoPNG, GoI, Annual Report 2024-2025, 8-15; PIB, "India's Energy Landscape", (June 22, 2025).
44. PIB, "Government Boosts Fertilizer Security with Record 73% Domestic Supply in 2025," (January 9, 2026), https://www.pib.gov.in/PressReleasePage:aspx?PRID=2212909.
45. PIB, "Cabinet Approves National Mission on Edible Oils – Oilseeds (NMEO-Oilseeds)," (December 08, 2025); PIB, "NITI Aayog: Pathways and Strategies for Accelerating Growth in Edible Oils towards Atmanirbharta".
46. Government of India, Reply to Rajya Sabha Starred Question on Medical Device Import Dependence, August 2025, as cited in "Medical Device Imports Still at 70%," Medical Dialogues, August 1, 2025; PIB, "Medical Device Park", (March 17, 2026).
47. United Nations Conference on Trade and Development (UNCTAD), "Impact to Global Trade of Disruption of Shipping Routes in the Red Sea," UNCTAD/OSG/INF/2024/2, February 2024, https://unctad.org/system/files/official-document/osginf2024d2_en:pdf; Organisation for Economic Co-operation and Development / International Transport Forum (OECD/ITF), "The Red Sea Crisis: Impacts on Global Shipping and the Case for International Co-operation," 2024, https://www.itf-oecd:org/sites/default/files/repositories/red-sea-crisis-impacts-global-shipping:pdf.
48. ANI, "Indian Oil PSUs have global presence with net investments of $40.6 bn, across 21 countries: Hardeep Puri", July 17, 2024. ONGC Videsh holds stakes in 32 oil and gas projects across 15 countries (https://www.ongcvidesh.com/our-assets-worldwide/), while Indian Oil operates one overseas block, and is a non-operating partner in 10 overseas blocks (https://www.iocl.com/pages/exploration-and-production). GAIL maintains overseas presence in Russia, USA, Singapore, Myanmar, China, and Egypt; with OIL India Ltd operating across Russia, Venezuela, Nigeria, Mozambique, Libya, Bangladesh and Gabon (www.gailonline.com). Bharat Petro Resources Limited has secured a critical production concession from Abu Dhabi's Supreme Council for Financial and Economic Affairs, strengthening India's Gulf energy partnerships (https://m.economictimes.com/industry/energy/oil-gas/abu-dhabi-gives-onshore-block-production-license-to-indias-ioc-bpcl-jv/articleshow/113265559.cms).
49. Adani Group's investments include $700 million for Colombo Port's West Container Terminal (51% stake); and partnership with Israel's Gadot Group to operate Haifa Port, Israel's second-largest container facility, handling nearly half the country's container cargo. The Haifa Port investment creates a trans-Mediterranean maritime link enabling direct Indian goods transshipment to European markets. Adani Ports and Special Economic Zone Ltd. (APSEZ), Annual Report 2023–24 (Ahmedabad: APSEZ, 2024); Adani Ports and Special Economic Zone Ltd., "Acquisition of Haifa Port," company release, 2023; APSEZ, "Bagamoyo Port Project Developments," corporate disclosures; Department of Foreign Affairs and Trade, Government of Australia, "India–Australia Economic Cooperation and Infrastructure Engagements," 2023.

50. Nalini Sharma, "The Chennai-Vladivostok Maritime Corridor: A Game-Changer for Indo-Russian Relations", Indo Pacific Studies Center (IPSC), 2024.
51. Meena Singh Roy, "International North-South Transport Corridor: Re-energising India's Gateway to Eurasia", Manohar Parrikar Institute for Defence Studies and Analyses Report. August 18, 2015.
52. About the India-Middle East-Europe Economic Corridor (IMEC), https://www.imec.international/
53. MoPSW, GoI, Annual Report 2025-26, (2026), 4-6. https://shipmin.gov:in/sites/default/files/Annual%20Report%202025-26%20english:pdf
54. MoPSW, GoI, Annual Report 2025-2026, 5.
55. PIB, "9 Major Ports of India makes it to Global Top 100 by World Bank, a First for the country: Shri Sarbananda Sonowal", June 19, 2024.
56. PIB, "India's Major Ports Achieve Historic Milestones in FY 2024-25, Driving Growth and Global Competitiveness", May 13, 2025; PIB, "India as Top Maritime Nation", April 04, 2025; MoPSW, "Cargo Handling Status for Non-Major Ports", May 2025, 1.
57. MoPS&W, GoI, Annual Report 2025-2026, 55; PIB, "Comprehensive 4-Pillar Approach to Strengthen Shipbuilding, Maritime Financing, and Domestic Capacity", September 24, 2025; MoPS&W is the nodal Ministry for formulating policy measures for the promotion of Indian Shipbuilding and Ship Repair Industry. There are 79 Shipyards in the country, 7 under the Central Public Sector, 2 under State Governments and 70 under private sector.
58. PIB, "Setting Sail India's Shipbuilding Revival", October 14, 2025.
59. Congressional Research Service, "Undersea Telecommunication Cables: Technology Overview and Issues for Congress," September 13, 2022, 1; Douglas R. Burnett, Robert C. Beckman, and Tara M. Davenport, eds., Submarine Cables: The Handbook of Law and Policy (Leiden: Martinus Nijhoff Publishers, 2014), 25–30. The term Submarine Cable is the authoritative legal and technical standard used in international treaties like the United Nations Convention on the Law of the Sea (UNCLOS) to describe infrastructure laid on the ocean floor for telecommunications and power. While "seabed" describes the physical location, "submarine" serves as the formal industry designation for these critical assets, which carry over 95% of global data traffic and are protected under international law to ensure global connectivity.
60. Monty Khanna, "A Roadmap for Securing India's Undersea Cables," ORF Special Report No. 266 (New Delhi: Observer Research Foundation, June 2025). For India, the value of its services exports in 2023-24 stood at $341.11 bn, with the vast majority of it using submarine cables as a conduit for delivery. This reliance is only anticipated to increase, as India's services exports are projected to rise to $618 bn by 2030, surpassing its exports in merchandise.
61. The Maritime Anti-Piracy Act, 2022 defines the "high seas" as including the Exclusive Economic Zone and all waters beyond the jurisdiction of any other State. The act defines "piracy" as — (i) any illegal act of violence or detention or any act of depredation committed for private ends by any person or by the crew or any passenger of a private ship and directed on the high seas against another ship or any person or property on board such ship; (ii) any act of voluntary participation in the operation of a ship with knowledge of facts, making it a pirate ship; (iii) any act of inciting or of intentionally facilitating an act described in sub-clause (i) or sub-clause (ii); or (iv) any act which is deemed piratical under the international

law including customary international law; Maritime Anti-Piracy Act, 2022, No. 3 of 2023, The Gazette of India (February 2, 2023), https://prsindia:org/files/bills_acts/acts_parliament/2023/The%20Maritime%20Anti%20piracy%20Act,%202022:pdf

62. Article 101, UNCLOS, IMO Assembly Regulation A.1025(26).
63. United Nations Office on Drugs and Crime, "World Wildlife Crime Report 2024: Trafficking in Protected Species" (Vienna: United Nations, 2024); International Maritime Organization, "Combatting Illicit Wildlife Trade and Corruption in Maritime Transport," FAL.5/Circ.50 (London: IMO, 2022); wildlife trafficking is estimated to generate over $200 bn annually, making it the fourth largest illegal trade globally, see United Nations Development Programme (UNDP), "Reducing Maritime Trafficking of Wildlife: Best Practices for Ports" (2023). An estimated 80 per cent of trafficked wildlife products by volume move by sea, exploiting containerised cargo, where less than two per cent of containers are physically inspected. Seizure data for 2015-2021 documented illegal trade across 162 countries affecting approximately 4,000 species, with the Africa-to-Asia maritime corridor through the Indian Ocean being among the most significant trafficking routes. The IMO approved Guidelines FAL.5/Circ.50 in 2022 specifically to address wildlife smuggling through maritime transport.
64. India is situated between the world's two largest areas of illicit opium production, the 'Golden Crescent' and the 'Golden Triangle'. This proximity has traditionally been viewed as a source of vulnerability. United Nationals Office on Drugs and Crime Report. https://www.unodc:org/pdf/india/publications/south_Asia_Regional_Profile_Sept_2005/10_india:pdf
65. While irregular migration is the internationally preferred neutral term for movement occurring outside regulatory norms, it carries diverse legal and administrative nuances. From a legal perspective, it is often termed, "illegal migration" to emphasise the violation of national sovereignty and immigration laws, as defined in frameworks like India's Citizenship Act, 1955. In contrast, humanitarian and administrative contexts favour "undocumented migration", focussing on the lack of valid paperwork rather than the criminality of the individual. While the specific term, "irregular human migration" is occasionally used to explicitly distinguish the movement of people from the movement of goods or wildlife, it is generally considered redundant in a professional context since migration inherently refers to human movement. Crucially, the phenomenon must be distinguished from the crimes of movement: "migrant smuggling," which involves consensual but unauthorised border crossing for profit, and "human trafficking", which centers on exploitation on coercion. Ultimately, "irregular migration" serves as an umbrella term that acknowledges the fluidity of a migrant's status – where one may enter legally but become irregular through overstaying – without applying the permanent stigma of "illegal" to the person. The international organisation of migration defines 'Irregular Migration' as the movement of persons that takes place outside the laws, regulations, or international agreements governing the entry into or exit from the state of origin, transit, or destination. Irregular migrations are to be understood in contrast to regular, legitimate migrations which form various diaspora communities around the world. International Organisation of Migration, "Glossary on Migration" (2019), 116.
66. Official Website, FAO, 66. https://www.fao.org/iuu-fishing/background/what-is-iuu-fishing/en/.

67. The Maritime Zones of India (Regulation of Fishing by Foreign Vessels) Act, 1981 covers the regulations and related aspects for fishing by foreign vessels in the maritime zones of India. Enforcement under this Act is a responsibility of the Indian Coast Guard.
68. Etienne Romsom, "Global Oil Theft: Impact and Policy Responses", WIDER Working Paper 2022/16 (Helsinki: UNU-WIDER, 2022).
69. United Nations Environment Programme, "Sand and Sustainability: 10 Strategic Recommendations to Avert a Crisis" (Nairobi: UNEP, 2022).
70. United Nations General Assembly, Agreement under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas beyond National Jurisdiction, A/CONF.232/2023/4 (New York: United Nations, 2023).
71. Over 400 million tonnes of plastic are produced globally each year, with more than 11 million tonnes entering the oceans annually. Plastic pollution causes an estimated $13 bn in annual damages to marine ecosystems, with over 100,000 marine mammals and one million seabirds killed each year. United Nations Environment Programme, "From Pollution to Solution: A Global Assessment of Marine Litter and Plastic Pollution" (Nairobi: UNEP, 2021); International Union for Conservation of Nature, "Marine Plastic Pollution," IUCN Issues Brief (Gland: IUCN, April 2024); As outlined in Section 14(1)(c) of the Coast Guard Act 1978, the Indian Coast Guard is mandated to "take such measures as are necessary to preserve and protect the maritime environment and to prevent and control marine pollution" within India's maritime zones. Coast Guard Act, 1978. Act No 30 of 1978, s. 14(1)(c).
72. International Maritime Organization, Resolution A.1192(33): Urging Member States and All Relevant Stakeholders to Promote Actions to Prevent Illegal Operations in the Maritime Sector by the 'Dark Fleet' or 'Shadow Fleet', adopted 6 December 2023. https://w.wcdn:imo:org/localresources/en/KnowledgeCentre/IndexofIMOResolutions/AssemblyDocuments/A:1192(33):pdf.
73. Shraddha J, Shadow Fleet Accounts for 18.5% of Global Tanker Capacity as Sanctioned Oil Trade Surges, ScanX News Team, January 20, 2026. Original fleet size and growth data sourced from Kpler maritime analytics. https://scanx:trade/stock-market-news/global/shadow-fleet-accounts-for-18-5-of-global-tanker-capacity-as-sanctioned-oil-trade-surges/30428172 (accessed March 12, 2026).
74. S&P Global, "FACTBOX: Shadow Fleet Expands to Maintain Sanctioned Oil Flows", September 03, 2025. https://www:spglobal:com/energy/en/news-research/latest-news/crude-oil/090325-factbox-shadow-fleet-expands-to-maintain-sanctioned-oil-flows
75. Maritime incidents in the context of the INMSS dovetails the term 'Marine Incidents' as enshrined in the Merchant Shipping Act 2025. The MS Act defines "marine incident" as an event, or sequence of events, occurring directly in connection with the operation of a vessel that endangers, or if not corrected, would endanger the safety of the vessel, its occupants or any other person or the environment and includes marine violation, marine casualty, marine disaster, cyclones, storms or other adverse weather events, very serious marine casualty and such other event or sequence of events as may be notified by the Central Government. Merchant Shipping Act, 2025, No. 24, Acts of Parliament, 2025 (India), https://www.dgshipping.gov.in/Content/MerchantShippingAct.aspx

76. Areas of Responsibility (AoR). AoR is the geographical area associated with a combatant command, within which a combatant commander has authority to plan and conduct operations. AoRs are defined to demarcate the geographic regions between Commands to enable unambiguous delegation of missions/ tasks, and consequent planning, coordination and conduct by respective Commands; See HQIDS, Common Operational Planning Process Ver 1.0, ix.

Chapter 3

77. Combat Capability is an amalgamation of three interrelated components – physical, human and conceptual, which needs to be raised in tandem. For example, ASW Capability consists of three components: the ships, ASW helicopter, torpedoes, ASW rockets etc. represent the physical component; ASW specialists and well trained ASW sailors represent the human component; while the ASW doctrines and tactics represent the intellectual component.
78. With regards to the development of physical component of capability, *capacity* represents the quantitative depth required to sustain naval operations, whereas *capability* denotes qualitative competence.
79. Senge, Peter M. The Fifth Discipline: The Art and Practice of the Learning Organisation, (New York: Currency Doubleday, 1990); A Learning Organisation is defined as one wherein personnel continually expand their capacity to achieve desired outcomes, innovative patterns of thinking are systematically cultivated, collective purpose is aligned, and institutional learning becomes an enduring organisational attribute. The concept posits five interdependent disciplines essential to such organisation – personal mastery, mental models, shared vision, team learning and systems thinking – with systems thinking serving as the integrating discipline that binds all others into a coherent framework for institutional adaptation and continuous improvement.
80. While the details included here are current at the time of this document going into print, networks being a highly dynamic capability, will undergo sustained changes in their composition and connectivity over time.
81. International Maritime Organization (IMO), "Maritime Domain Awareness", accessed on March 13, 2026, https://www.imo.org/en/ourwork/security/pages/maritime-domain-awarenss.aspx
82. HQIDS, Joint Doctrine for Multi Domain Operations, August 2025.
83. HQIDS, Joint Doctrine for Cyberspace Operations, June 2024.
84. HQIDS, Joint Primer for Integrated Logistics, (2025), 18.
85. NHQ, IMD (2025), 79.
86. HQIDS, Joint Primer for Integrated Logistics, (2025), 18-19.
87. HQIDS, Defence Forces Vision 2047, 23.

Chapter 4

88. PIB, "English Translation of Press Statement by PM during the India-Mauritius Joint Press Statement", (March 12, 2025).

89. Each strategy is supported by specific sub-strategies that provide focussed lines of effort and targeted actions. These sub-strategies achieve the defined outcomes and Maritime Strategic Objectives associated with their parent strategy through coordinated employment of capabilities and resources.
90. MEA, GoI, "The Wilmington Declaration Joint Statement from the Leaders of Australia, India, Japan, and the United States", (September 21, 2024); the United Nations Conventions of Laws at Sea (1982/1994) serves as the primary legal instrument governing all maritime zones, including the rights of coastal (littoral) states in their Exclusive Economic Zones (EEZ) and the rights of flag states (including extra-regional forces) to exercise freedom of navigation and overflight. Further, India's vision of a 'Free, Open, and Inclusive Indo-Pacific' (FOIP), was reiterated by the Hon'ble Prime Minister Shri Narendra Modi at the Shangri-La Dialogue 2018 and Defence Minister Shri Rajnath Singh at the Indo Pacific Regional Dialogue 2022, emphasising that all actors—littoral or extra-regional—must abide by international maritime laws, specifically UNCLOS.
91. National Disaster Management Authority (NDMA), GoI, "Guidelines on International Humanitarian Assistance and Disaster Relief (HADR)", (October 2024).
92. NHQ, IMD 2025, 87.
93. Indian Coast Guard (ICG), National Maritime Search and Rescue Plan 2022 (2022).
94. Synthesis consolidates all sub-strategies to articulate the specific Missions and Tasks that operationalise that particular Strategy. This integration ensures coherence across all lines of effort and translates strategic intent into actionable naval missions and operational tasks.

Chapter 5

95. After the Kargil war in 1999, and review of the national security apparatus, several measures were initiated to revamp India's coastal security, with focus on strengthening the SMP and ICG. A new Coastal Security Scheme was approved in 2005, to be implemented over five years. The measures were being implemented at the time of maritime terror attacks by armed terrorists from Pakistan at Mumbai on November 26, 2008 ('26/11').
96. The term 'State Marine Police' is synonymous with the term 'Coastal Police' or 'Marine Police' and is interchangeably used on aspects/ discussions related to coastal and offshore security.
97. As per UNCLOS, territorial waters extend upto 12 nm from the normal baseline (low-water line along the coast) or straight baselines (in case of indented coasts and fringe of islands), as applicable, with the sea area on the landward side of these baselines forming part of the internal waters. A contiguous zone extends upto 24 nm from the applicable baseline, i.e. a further 12 nm beyond the territorial waters. The IMBL delimits the maritime zones between adjacent states, from the coast upto the limits of the EEZ. The IMBL between India and Sri Lanka also delimits the 'historic waters' in Palk Bay, which constitute internal waters on each side.
98. National Security Council Secretariat (NSCS), Maritime Security Acquaint 03/25, (September 2025), 27.
99. NSCS, Maritime Security Acquaint 03/25, 28.

100. Coast Guard Act, 1978, Chapter III, Section 14(2)(a) assigns responsibility to the Coast Guard for "ensuring the safety and protection of artificial islands, offshore terminals, installations and other structures and devices in any maritime zone."
101. NSCS, Maritime Security Acquaint 03/25, 28.
102. Ibid.
103. As per directives of the Cabinet Committee on Security (CCS), in February 2009.
104. Coast Guard Act, 1978, Sections 1 and 14.
105. CCS Directives.
106. PIB, "Indigenous Transponders Become Lifeline for Fishermen During Cyclone DANA, October 29, 2024; https://www.nsilindia.co.in/sites/default/files/rooloutofvc.pdf; https://www.isro.gov.in/MobileApps.html; National rollout of Vessel Communication and Support System, which aims to install nearly 1 lakh MSS Terminals (Xponders) on mechanised and motorised fishing vessels in a phased manner, is being progressed. New Space India Limited (NSIL), a GoI company under Department of Space (DoS) and the commercial arm of Indian Space Research Organisation (ISRO), has been spearheading this project on behalf of the Department of Fisheries (DoF), Ministry of Fisheries, Animal Husbandry & Dairying. This initiative focusses on establishing a dedicated Mobile-Satellite Services (MSS) network for Monitoring, Control, and Surveillance (MCS) of nearly 1 lakh fishing vessels across nine coastal states and four Union Territories of India. Nabhmitra is a national MSS network implemented for real-time tracking of sub-20 m boats going into the deep sea for fishing. It also supports two-way short messaging services, wherein fishermen can send distress or custom messages to User Agency through an Android application. The network also supports broadcasts of weather alerts of emergency warning in various modes, which can be received on the Fisherman app.

Chapter 6

107. Panchsheel encompasses mutual respect for each other's territorial integrity and sovereignty, mutual non-aggression, mutual non-interference, equality and mutual benefit, and peaceful co-existence. See MEA Publication, "Panchsheel", https://www.mea.gov:in/uploads/publicationdocs/191_panchsheel:pdf.
108. Prime Minister's Office, GoI, "Cabinet Committee on Security Reviews Progress in Operationalising India's Nuclear Doctrine", (January 04, 2003).
109. PM addresses the Lok Sabha during a Special Discussion on Operation Sindoor, July 29, 2025.
110. Frans Osinga and Tim Swejis, eds., NL Arms Netherlands Annual Review of Military Studies 2020: Deterrence in 21st Century – Insights from Theory and Practice (The Hague: T.M.C. Asser Press, 2020), 268-269.

Chapter 7

111. Indian Navy, Indian Maritime Doctrine 2025, 20; Grey Zone Operations take place in the zone of NWNP with an aim to reduce the relative time and cost of achieving significant

objectives, by circumventing existing deterrence mechanisms, or increasing the relative cost of conventional engagement in that zone for the adversary. GZOs are characterised by an ambiguity about the legitimacy of the action, or its perpetrator. Use of proxies, skewed narratives and different interpretation or exploitation of existing rules and norms are usually adopted to achieve ambiguity, whilst endeavouring to remain below the threshold of armed conflict. Interpretation or exploitation of existing rules and norms are usually adopted to achieve ambiguity, whilst endeavouring to remain below the threshold of armed conflict.

Chapter 8

112. HQIDS, Joint Doctrine for Multi-Domain Operations, (2025), 4, 9, 23.
113. HQIDS, Joint Doctrine for Amphibious Operations, (2025), 13, 18.

Explanatory Notes

Amphibious Operations. Amphibious operations are joint military operations wherein land forces are projected ashore from the sea. Inherently complex, and requiring the highest degree of jointness and coordination amongst the three Defence forces, these operations require specialised capabilities in all dimensions to be synchronised and seamless. The operation would require sea control, which includes Favourable Air Situation, in the maritime spaces during the transit phase and on arrival in the Amphibious Objective Area, including maritime approaches, beach-head and landward area of operations. This will ensure safe and rapid movement of the landing force from ship to shore, amphibious build-up ashore, and maintenance of the landing force from the sea.

Anti-Submarine Warfare Capability. The submarine, with its stealth features and array of weapons and sensors, projects a potent threat. Development of strong ASW capability is essential to counter adversary submarine forces. This includes integral ASW capability within the naval fleet for its protection, and for deployment of dedicated forces in coastal waters and for open ocean ASW. The ASW capability comprises both ships and aircraft, including shore-based and integral.

Armed Robbery. Armed robbery against ships consists of any of the following acts:-

- Any illegal act of violence or detention or any act of depredation, or threat thereof, other than an act of piracy, committed against a ship or against persons or property on board such a ship, within a state's internal waters, archipelagic waters and territorial seas;
- Any act of inciting or of intentionally facilitating an act described above.

Carrier Battle Group (CBG). Aircraft carriers are central to fleet operations and the concept of sea control, as they offer flexibility and versatility of a very high order. These mobile airfields combine substantial integral air power with mobility, to provide ubiquitous and enhanced combat power across vast maritime spaces, and the advantage of rapid redeployment. The aircraft carrier operates in a composite CBG with multi-mission ships as escorts against multi-dimensional threats, and with logistics ships for extending their reach and sustenance.

Carrier Task Force (CTF). The CTF is a self-supporting force capable of undertaking the full range of operational tasks in all dimensions. These include Anti-Air Warfare, Anti-Surface Warfare (ASuW), ASW, Maritime Strike, Electronic Warfare (EW) and PSMs. The CTF comprises one or more CBGs, with additional Surface Action Groups (SAGs), AAW, ASuW and ASW forces, and integral logistics ships. Dedicated forces may be attached to the CTF as per mission requirements, such as for conduct of Expeditionary, Out-of-Area, or Amphibious Operations.

Choke Points in IOR. Maritime choke points in the Indian Ocean Region constitute critical nodes that exert disproportionate influence over global trade and energy security. Choke points in the IOR are as follows:-

- **Cape of Good Hope.** The Cape of Good Hope is not a conventional choke point, since adequate space and depth of water lies to its south and the passage of ships is not restricted

by land. However, economic considerations and strong currents encourage ships to route closer to the coast. Substantial increase in traffic in this area has been observed in case of any disruptions in the Suez Canal or Bab-el-Mandeb.

- **Mozambique Channel.** The Mozambique channel is approximately 1,000 nautical miles (nm) long and 250 nm wide at its narrowest point. The usage of this channel reduced after the Suez Canal opened in 1869.
- **Bab-el-Mandeb.** Bab-el-Mandeb is a 17 nm wide stretch of water that connects the Gulf of Aden with the Red Sea and, thence, the Suez Canal.
- **Suez Canal.** The 105 nm long Suez Canal is the maritime gateway between Europe and Asia. Closure of the Suez Canal would cause traffic to be diverted around the Cape of Good Hope, thereby increasing transit time and transportation costs substantially. To illustrate, the distance between Mumbai to London is 6,200 nm via the Suez Canal, and 10,800 nm via the Cape of Good Hope.
- **Strait of Hormuz.** The Strait of Hormuz, connecting the Persian Gulf to the Gulf of Oman and Arabian Sea, has a width of about 30 nm and primary navigable channel across a six nm wide zone. It has no maritime detour, rendering it as a critical choke point.
- **Malacca and Singapore Straits.** The Straits of Malacca and Singapore link the Indian Ocean to the South China Sea and the Pacific Ocean. Providing the shortest sea route from the Persian Gulf to East Asia/ West Pacific regions, it is a strategic choke point in the IOR. The narrowest point amongst the two straits is the 1.5 nm wide navigable stretch of the Phillip Channel in the Singapore Strait.
- **Sunda Strait.** An alternative route to the Malacca and Singapore Straits is the Sunda Strait, which is 50 nm long and 15 nm wide at its north-east entrance. Large ships do not prefer passage through this strait due to navigational hazards, depth restrictions and strong currents.
- **Lombok Strait.** At a minimum channel width of 11.5 nm, the Lombok Strait has sufficient width and depth, with lesser congestion, and provides an alternative passage between the Indian and the Pacific Oceans, especially for larger ships.
- **Ombai and Wetar Strait.** The Ombai Strait lies between the islands of Alor and Timor, and the Wetar Strait lies between the islands of Timor and Wetar. Due to distance, routeing through this area is not normally preferred as an alternative to the Malacca and Singapore Straits. The route provides adequate depth for submarines to transit submerged between the Indian and Pacific Oceans.

Coastal Waters. The term 'coast' implies the land next to the sea, demarcated by the low-water line, while the word 'coastal' means along or near the coast. A coastal area may, thus, cover both, water area seawards of the coastline and also a land area at or along the coastline. The coastal zone would, hence, comprise a 'coastal waters zone' and a 'coastal land zone'. The coastal waters zone is considered, in the context of coastal security, as the water area that is seawards of the Indian coast (low-water line), upto the limits of India's contiguous zone or the IMBL, in case the latter is nearer. The concept of coastal waters extends upto the contiguous zone so as to provide the necessary space and focus on timely detection and response, considering the short time it may take for threats to traverse this distance to the coast. The coastal waters would, thus, comprise any internal waters between India's coast and straight baselines, its territorial waters, and upto the contiguous zone/ IMBL. In some areas, such as in India's island groups and gulfs, the coastal waters may extend to

more than 24 nm from the nearest Indian coast, due to larger swathe of internal waters, as per India's straight baselines.

Continental Shelf. The *continental shelf of India* comprises the seabed and subsoil of the submarine areas that extend beyond the limit of its territorial waters throughout the natural prolongation of its land territory to the outer edge of the continental margin or to a distance of two hundred nautical miles from the baseline where the outer edge of the continental margin does not extend up to that distance.

Contiguous Zone. The *contiguous zone of India* is an area beyond and adjacent to the territorial waters and the limit of the contiguous zone is the line every point of which is at a distance of twenty-four nautical miles from the nearest point of the baseline.

Defence. Defence comprises the set of state actions for protecting the sovereignty and territorial integrity of India, and other national interests, primarily from external military aggression and by the employment of military and armed forces.

Deterrence. Deterrence is the prevention of conflict and coercion, by convincing a potential adversary that the cost of such aggression would be higher than the gains accrued, and, hence, would serve the adversary's interests better by refraining or resiling from aggressive plans and actions. In this, the understanding and interpretation by the potential adversary, of one's capability, resolve and preparedness in relation to the adversary, would remain pivotal. It is essential that such capability and commitment are not only present, but are also convincingly seen as being present, through appropriate communication of one's posture and intent. Strategic communication, thus, plays a key role in deterrence.

Deterrence by Denial. Deterrence by denial is based on assurance of being able to prevent the aggressor from accruing the desired gains, regardless of the costs and effort invested by either side. It requires maintenance of requisite capability and portrayal of appropriate posture. This should assure effective defence against any aggression, sustained for the duration, scale and intensity of conflict, while simultaneously applying suitable leverages upon the aggressor. These would include direct and indirect pressures, aimed at rendering the aggressor's actions ineffective by preventing accomplishment of adversary goals.

Deterrence by Punishment. Deterrence by punishment is based on assurance of imposing high costs and punishment on the aggressor, such as to outweigh any gains that the adversary may accrue. This requires maintenance of a robust and resilient military capability, which can provide assured retaliation. It should be able to absorb and contain the initial aggression, and to take such punitive retaliation that would outweigh the aggressor's envisaged gains. The capability and intent to impose such punishment, in response to aggression, will also need to be adequately portrayed to the potential adversary for deterrence to be effective.

Doctrine. Doctrine is a body of thought on a subject describing established beliefs and principles, which enable wider understanding of the issue, thereby guiding further activities related to that

subject. It may include a framework of concepts and considerations, and also practices and procedures, which have been derived and developed over a period of time, based on cumulative study and accumulated experience. For military forces, doctrines exist at the strategic, operational and tactical levels. At the strategic level, doctrine is based on thoughts, beliefs and principles; at the operational level, it is centred on principles and concepts; and at the tactical level, it mainly comprises practices and also the framework for procedures. Tactical level doctrines would, thus, include what are often called Fighting/ Manoeuvring/ Tactical Instructions. While tactical doctrines are generally prescriptive, flexibility and initiative continue to be necessary and important. Doctrines at the strategic and operational levels, however, are mostly descriptive and are to be seen as a set of guiding principles rather than being prescriptive. Whilst such doctrine is authoritative in nature, and provides a common approach to understanding and approaching the subject, it neither prescribes a specific manner of dealing with the subject, nor should it be seen as dogma. Strategic doctrine, thus, guides policy and supports strategy, but does not dictate these.

Exclusive Economic Zone. The *exclusive economic zone of India* is an area beyond and adjacent to the territorial waters, and the limit of such zone is two hundred nautical miles from the baseline.

EEZ Surveillance and Patrols. The sovereign rights of a nation over exploitation of natural resources in the waters, seabed and subsoil of its EEZ are safeguarded by respective designated maritime agencies. The lead Indian agency in this regard is the Indian Coast Guard, which conducts regular surveillance and patrol in India's EEZ, to maintain presence, monitor activities, and enforce relevant laws of the country. This is also in support of coastal and offshore security, as the EEZ provides access to our territorial waters and the coast. The Indian Coast Guard is supported by the Indian Navy, as required.

High Seas. *High seas* include the EEZ and all waters beyond the jurisdiction of any other State {The Maritime Anti-Piracy Act, 2022, Section 2 (e)}.

High Seas. *High seas* are parts of the sea that are not included in the exclusive economic zone, in the territorial sea or in the internal waters of a State, or in the archipelagic waters of an archipelagic State (UNCLOS, Article 86).

Internal Waters. Waters on the landward side of the baseline of the territorial sea form part of the internal waters of the state.

Indian Maritime Doctrine. The *Indian Maritime Doctrine* describes the foundational concepts, considerations, characteristics and principles related to the understanding and application of maritime power. The maritime doctrine, accordingly, provides the conceptual framework related to the development of maritime power and for the employment of maritime forces, particularly the Indian Navy. It describes the range of activities of the Indian Navy in both peace and conflict across the spectrum of operations, including the broad roles of the Indian Navy, viz. military, diplomatic, constabulary and benign, with their associated objectives, missions and operational tasks. The maritime doctrine therefore 'guides' the ways in which the Indian Navy would be

developed, organised, equipped, trained and employed. However, it does not prescribe or describe specific ways, which is to be done by the corresponding strategies and related plans.

Indian Vessel. *Indian Vessel* means a vessel which is registered under Section 15 of the Merchant Shipping Act, 2025.

Maritime Interdiction Operations. The Indian Navy undertakes MIO, as required, to stop movement of vessels that jeopardise India's maritime security interests, to prevent them from reaching their intended destination. Conduct of MIO is based on specific intelligence or security conditions and in accordance with applicable laws, to prevent or counter movement of maritime threats in the region. This may include operations in support of friendly nations on their request to the GoI. These operations may be conducted independently, in joint action with the Indian Coast Guard and other defence forces, or in coordination with maritime forces of friendly countries.

Maritime Domain. Maritime domain encompasses the sea, along with the seabed, the underlying subsoil, airspace above and offshore infrastructure, extending outwards from the coastline, and includes the maritime infrastructure on the coast that support activities at sea (e.g. ports, harbours, airfields, repair facilities, light houses, means of surveillance, etc.).

Maritime Manoeuvre. Maritime manoeuvre describes the ability of naval forces to employ movement to incapacitate the enemy's resistance and decision-making cycle, through shock and disruption. Maritime forces have inherent attributes of access, mobility, reach, sustenance, flexibility and versatility. These enable their quick deployment and redeployment, to apply combat power across vast maritime spaces, for a range of missions. The utilisation of manoeuvre enables concentration of force at the required place and time, which is essential for countering surprise, gaining the initiative and obtaining decisive results.

Maritime Strike. Maritime strike is the projection of accurate combat force onto a maritime or strategic target, at sea or ashore, with the purpose of destroying or damaging it. Maritime strike is the primary method by which combat power is exercised at and from the sea. It exemplifies the role of force in the maritime domain, especially reach, mobility and precision. It is qualified by the ability to distinguish and attack the chosen target in the maritime domain with accuracy, usually from longer, beyond visual ranges, which also entails some form of guidance and control logic for initiating arming/ explosion. Maritime strike covers the range of combat strikes at sea, viz. anti-surface, anti-submarine and anti-air, with weapons launched from aerial, seaborne, underwater and shore platforms. The weapons used include missiles (anti-surface, anti-air and land attack), torpedoes, smart bombs and guns. It is dependent upon MDA and accurate targeting information, provided by either integral sensors or in a cooperative engagement with a consort platform.

Mine Warfare. Mining remains an economical and effective way of disrupting movement of naval and merchant shipping, with disproportionate effect on military and economic activities, especially port operations. Mine warfare, which includes both mine laying and mine clearance, may be conducted defensively off own coast, or offensively in areas of likely enemy operation, normally harbours and choke points. Mines that are laid would also need to be cleared on

completion of hostilities. Mine Counter Measures include the use of dedicated MCM forces in synergy with intelligence, route mapping and surveillance at the operational and tactical levels, reconnaissance and protection of non-MCM forces. Mine clearance by dedicated MCM vessels are carried out both before the outbreak of hostilities and during war, to ensure unrestricted movement of shipping.

Mission Based Deployments. In order to protect and safeguard India's national maritime interests, the Indian Navy maintains regular presence and surveillance in its maritime areas of interest. Since August 2017, naval deployments in the IOR have been further structured under the MBD concept, wherein naval warships maintain presence and conduct surveillance, on a regular and planned basis at various locations in the IOR, to ensure that the Navy is ready to *respond* and not *react* to any emerging situation. These deployments have enabled continuous/ near continuous presence by deploying mission-ready ships and aircraft in critical shipping lanes and choke points. Naval ships on MBD remain poised to address any contingencies across the spectrum of operations ranging from HADR missions to maritime terrorism and piracy.

National Security Strategy. The essence of national security relies upon the availability of appropriate national power, particularly military power, as no nation can be secure unless it possesses the necessary strength to protect itself and its citizens. Comprehensive national power, including military power, therefore, comprises the *means* for providing national security, which represents the *ends* defined in the national security objectives. The suitable *ways* for developing and employing national power, to meet the national security objectives, within the broad contours of the national security policy, would constitute the *national security strategy*. This safeguards national security by optimally developing and appropriately using suitable elements of national power, including military power, in consideration of the prevailing threats and emergent challenges. The term 'grand strategy' has often been used interchangeably to denote both national strategy and national security strategy. The military components of the national security policy and national security strategy are enunciated in the Defence Minister's '*Op Directive'*, which provides the basis for development of the *Joint Military Strategy* and the corresponding *Land, Maritime and Air Strategies*.

National Values. National values evolve from a nation's culture and history. They represent a nation's civilisational beliefs, core principles and 'way of life', which govern and guide its national aims and interests. In India, an ancient, continuing civilisation with rich, varied cultures and a long history, national values are duly reflected in the sustained presence of practically every culture and religion in the country. India's belief in plurality, respect for diversity, centrality of righteousness, necessity of balance, acceptance of social responsibility, pursuance of law, promotion of accountability and justice, are some such principles that find resonance in the nation's culture and societal philosophy over the centuries. These aspects, along with the centrality of human equality, egalitarian ethos and social justice, have also been reiterated in the preamble, fundamental rights, fundamental duties and directive principles enshrined in the Constitution of India. The national aim evolves from the national values and provides the basis for deriving national interests.

Non-combatant Evacuation Operations. NEO are operations undertaken, on directions of the GoI, for the evacuation of non-combatant Indian citizens from foreign nations, when their

lives are endangered by conflict, civil unrest or natural disaster, to designated safe havens. NEO are undertaken by the defence forces and other state agencies, essentially maritime and aviation, operating in close coordination with the MEA. In case of large-scale NEO, or where safety and security of the embarkation point is not available and force may be used to protect civilians, the Indian Army or SF may also be involved.

Operational Tempo. Operational tempo, also called *op tempo*, refers to the pace of operational activities across the Information-Decision-Action (IDA) cycle. A high op tempo would require the ability to maintain MDA amidst changes in operational environment and effect of various events, take swift decisions in response to the emerging situation and undertake rapid operational actions.

Patrol. A patrol is the exercise of presence by maritime forces with high operational readiness, within a defined maritime area, so as to maintain and develop MDA, and prevent occurrence or counter activities that are inimical to security in that area. A patrol is different from PSM, in that, firstly, patrols are regularly conducted not only by ships, but also by aircraft and submarines. It is conducted in a specific, and mostly smaller, maritime area. It is also focussed on designated activities, to monitor and prevent their occurrence. It is normally sustained over a period of time. This may be done on continuing basis, wherein the patrolling unit would be relieved in the area after regular, specified intervals, or repetitive basis wherein the patrol would be repeated after a specified time interval as per operational considerations. The main types of patrol conducted by our naval, coast guard and marine police vessels include the following:-

- 'General Patrol' for monitoring general activities and augmenting security in the defined area. For example, along a SLOC, in a choke point, or across a barrier line, to monitor the movement of vessels.
- 'EEZ Patrol' to monitor, check and ensure that the activities in the designated area, within the EEZ, are as per those legally authorised, including fishing, scientific and hydrographic survey.
- 'IMBL Patrol' to check unauthorised movement of vessels, cargo and persons across the IMBL into/ from our maritime zones, especially territorial waters.
- 'Security/ Defence Patrol' to ensure security/ defence respectively in defined areas, by preventing/ countering seaborne infiltration of armed anti-national elements, and other actions that may threaten our maritime security. Security/ defence patrols may be carried out in our offshore development areas (ODA Patrol), coastal waters (Coastal Patrol), offshore islands (Island Patrol), and in harbours and ports (Harbour Patrol).

Policy and Plan. Policy defines the guiding parameters for a strategy and plan. At the strategic level, policy would flow from the values and beliefs, and provides the broad considerations for shaping strategy. At the operational level, policy is reflected in the Higher Commander's Op Directives and Operational Commander's Intent/ Planning Directions, including constraints and restraints, for deriving the operational plan. Accordingly, while thought and action is guided by doctrine, the specific course of action or plan is determined as per the strategy, formulated within the framework of policy, to attain defined objectives, with regard to the available means and prevailing operating environment.

Port Visits. Port visits by warships are the basic method of undertaking defence diplomacy with other nations, and interaction between their maritime forces. A warship is a sovereign instrument of the State, and represents its interests, intent, capability and technological prowess. The crew, as a microcosm of the nation's population, similarly represents their culture, values and attributes. A port visit by a warship to another nation, therefore, projects our nation and people to the host military, government and populace. It also provides bonding and reassurance to Indian diaspora settled there. A port visit is seen as an act of trust, friendship and respect. It paves the way for further interactions and building of 'bridges of friendship'.

Presence. Presence enables ready availability of naval forces in an area of maritime interest, to prevent or respond to crises and be advantageously deployed in case of an imminent confrontation/ conflict. It is a primary means to display intent and commitment, gain operational familiarity, exercise maritime power, encourage good order at sea and adherence to applicable laws, promote stability and provide net maritime security in an area of interest.

Presence and Surveillance Mission (PSM). PSM is an important peacetime and NWNP activity, which entails operational deployment of suitable naval forces in a maritime area, so as to establish presence and conduct surveillance. These are normally carried out by naval ships, and sometimes aircraft, across and beyond India's maritime zones. PSM enables the monitoring of operational conditions in all dimensions, to maintain and develop MDA, display commitment, project deterrence and provide rapid response capability. It can be carried out as an independent action or conjoin with other singular or multiple activities, such as exercises, patrols and deployments. PSM can be done independently by our maritime forces, and also in a coordinated or combined manner with other navies and coast guards.

Sea Control. Sea control denotes a condition where a force is able to use a defined maritime space (including surface, underwater and air), for a specific period of time, for one's own purpose, whilst simultaneously denying its use to the adversary. Sea control is *not* equal to 'control of the sea', and is *not* an end in itself. It is, rather, an enabling condition that needs to be established, so as to provide the necessary *freedom of action*, in terms of area, time and nature, which is required for achieving the main operation and purpose. Hence, sea control is considered as a prerequisite for most naval operations, as it qualifies the basic condition of attaining the necessary degree of freedom of action required for undertaking and progressing such operation. Sea control can be attained either by the force undertaking the main operation itself, and at the same time, or, by a dedicated forces deployed prior to or along with the main operation, such as for a larger, complex operations. As it is related to the desired objective and also corresponding naval operation(s) to achieve the objective, the requirements for sea control will vary. For example, the type of sea control required for keeping ports that are outside the primary Area of Operations (AO), safe and free for navigation will be very different from the sea control required for SLOC protection close to the enemy coast, while an amphibious operation would normally require the highest degree of sea control, including its maintenance by a separate force. In all cases, the focus will be on ensuring that the degree of control and freedom of action necessary to undertake and progress the main operation are available.

Sea Lines of Communication (SLOCs). The sea routes used by a nation for transportation of its essential commodities, including energy, trade and other cargo towards its sustenance, growth and development, and by its maritime forces for conduct of operations, are termed as its SLOCs. These would generally coincide with the International Shipping Lanes (ISLs) in peacetime, but may need to be altered as per the threat, especially during conflict. The sea routes used by the maritime forces for conducting and sustaining maritime operations would further vary as per the operational plans. The security of a nation's SLOCs forms part of the principle of war on 'security'. The options for sea routes would depend on maritime geography, navigational conditions, including climate and weather, ships' characteristics, ports/ hubs enroute, security threats in various sea areas, and dependence on specific ports of origin/ destination.

Sea Denial. Sea denial is a concept of denying the adversary the use of a particular maritime space, for a period of time when it is not required for one's own use. It is essentially an offensive action, to reduce the adversary's freedom of action and to degrade its operating capability. It targets the adversary in areas of importance, and disrupts the use of these areas for the adversary's purpose. Sea denial can also be used in a defensive manner, to prevent the adversary from operating in an area from where the adversary can launch strikes against our VAs/ VPs, forces and other assets. Sea denial is distinct from sea control, even though the latter has sea denial as a concomitant attribute. The difference is that, for sea denial, the same area is *not* required for our own purpose. This aspect dictates the ways and means of exercising force. In sea denial, the choice of force deployments can be less overt, and also less concentrated, whilst keeping the adversary in doubt as to the degree and quantum of our presence. This would additionally serve to inhibit his freedom of action, as force could be applied against units operating in the area.

Security. Security encompasses state actions focussed on ensuring good order at sea, protecting national interests and addressing non-military sources of insecurity, external or internal, primarily by the employment of non-military elements of national power, either within India, or overseas, in support of international security efforts.

Security [Overall Maritime Security]. *Overall Maritime Security* encompasses all actions for ensuring security of India's interests in the maritime domain across the full spectrum from peace to war.

Strategy. A strategy provides the *ways* for suitable development and employment of the *means*, to achieve the desired *ends*. It caters to trends and changes, including risks and opportunities that may emerge. It also looks at enhancing and augmenting the means, and developing the most effective and efficient ways for their employment. A strategy is developed at the single defence force, joint and national levels, with the assistance of instruments such as net assessments, threat assessments, scenario building, technology forecasting, and wargaming. Such a plan at the national level that seeks to harness national means and power, to meet the national aim and aspirations, would constitute the *national strategy*. The national strategy itself flows from a clearly stated or implied *national policy*. In a similar manner, the plan by which a state would harness all elements of its national power to attain various maritime objectives, in support of the national strategy and

attainment of the national aim and interests in the maritime domain, would constitute its *maritime strategy*.

Submarines. Submarines are potent offensive weapon platforms, which can apply strategic leverage with their increased ranges of weapons and power projection capability. Submarines are also used for other tasks, including land-attack, ISR, ASW, and 'silent presence', as per their equipment and weapon capabilities. Air Independent Propulsion (AIP) and nuclear-powered submarines (SSN), which can operate submerged for longer periods, enhance the potency of submarine operations.

Surface Action Groups (SAG). These are dedicated task groups formed for the purpose of carrying out specific ASuW tasks at sea. These are generally destroyers and frigates, attached to the main Task Force/ CTF, for undertaking specific surface actions as part of the operational plans and situation. Maintenance of potent SAG capability within the fleet remains essential for maritime operations.

Territorial Waters. The sovereignty of Indian extends and has always extended to the 'territorial waters' of and to the seabed and subsoil underlying, and the air space over, such waters. The limit of the territorial waters is the line every point of which is at a distance of twelve nautical miles from the nearest point of the appropriate baseline (the term territorial waters is synonymous with territorial seas used internationally in accordance with UNCLOS).

Trafficking/ Smuggling. *Smuggling* may be understood as transshipment of cargo in evasion of the law, such as avoidance of duty or the lawful procedure, while *trafficking* covers transshipment of cargo, in direct contravention of the law, where such cargo is prohibited to be imported/ exported by law.

Warship. *Warship* means a ship belonging to the armed/ defence forces of a state bearing the external marks distinguishing such ships from its nationality, under the command of an officer duly commissioned by the government of that state and whose name appears in the appropriate Service List or its equivalent, and manned by a crew which is under regular armed forces discipline.

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Index

A

Air Defence 114
Amphibious Operations 110, 113, 135
Anti-Air Warfare 113, 135
Anti-Piracy 57, 146
Anti-Submarine Warfare 113, 135
Anti-Surface Warfare 113, 135
Areas of Maritime Interest 15, 27, 28, 29
Areas of Responsibility 27, 130
Armed Robbery 24, 25, 135
Atmanirbharta 6, 10, 121, 127

B

Blockade 103, 114
Blue Economy 19, 60

C

Capability Development 33, 34, 35, 36, 56, 74, 86, 99, 107
Capability Enhancement 56, 58, 79
Capability Risk 120
Capacity Building 56, 58, 79
Carrier-based Air Operations 86, 113, 135
Character of Conflict 106
Choke Points 16, 135
Community 63, 80
Coastal and Offshore Defence 72, 114
Coastal Defence 72, 73, 111
Coastal Security 24, 71, 72, 73, 74, 76, 78, 79, 80, 82, 83, 111
Coastal Waters 71, 72, 78, 81
Collaborative Efforts 59
Commodity Denial 111
Competition 9, 10, 18, 97, 98, 103
Confrontation 97, 98, 103, 106
Constructive Engagement 5, 59
Contingency Plan 76
Conventional Deterrence 86, 87, 88, 90
Cooperation 57, 59, 67, 68, 69, 97
Coordinated Patrol 66
Counter-terrorism 67
Cyber 5, 9, 10, 24, 41, 42, 49, 81, 86, 87, 92, 93, 103, 109., 113, 121

D

Dark Vessel 25, 26, 27
Deception 42, 93
Defence Communication Network 38
Deterrence 42, 48, 57, 85, 86, 87, 88, 89, 90, 91, 92, 95
Disruptive Technologies 10
Diving 67, 82
Doctrine ii, 3, 4, 6, 41, 87, 94, 100

E

Electronic Warfare 42, 87, 113, 120, 135
Enabler(s) ii, 11, 33, 34, 55, 56, 74, 86, 87, 99, 106, 107
Energy Security 20
Escalation Dominance 109
Exclusive Economic Zone i, 15, 138

F

First Responder 61, 64, 67, 68, 69
Fisheries 17, 18, 51, 60, 78, 80, 82
Fleet 43, 46, 94, 110
Fleet Support Ship 46
Force Protection 81, 88, 93

G

Grey Zone 9, 10, 27, 92, 98, 101, 102, 106, 120

H

Harbour Defence 93, 114
Higher Defence Organisation 8, 10
Human Capital 36
Human Component 36
Humanitarian Assistance and Disaster Relief 61, 62, 68, 132, 137
Hybrid 25, 71, 73, 106, 108
Hydrography 59, 68, 141, 145

I

Indian Air Force 63, 72, 87, 108, 109, 110, 111
Indian Army 87, 108, 109, 110, 111

Indian Coast Guard 38, 51, 60, 63, 71, 72, 73, 75, 76, 78, 80, 94, 111, 146, 148
Indian Maritime Doctrine (2025) ii, 4, 6, 35, 45, 65, 97
Indian Search and Rescue Region 63
Information Warfare 33, 41, 42
Integration 37, 47, 48, 56, 75, 87, 100, 107
Intellectual Component (of Capability Development) 36
Intelligence 10, 36, 81, 94, 119, 121
International Shipping Lanes 15, 143
Irregular Migration 25, 26
IUU Fishing 25, 26

J

Joint Operations 39, 63, 73, 77, 94
Joint Operations Centre 63, 77
Jointness ii, 34, 44, 48, 49, 56, 75, 87, 91, 100, 135

L

Land Attack Operations 113
Leadership 4, 36, 59, 67, 98
Local Naval Defence 114

M

MAHASAGAR 16, 55
Maintenance 34, 42, 43, 44, 45, 56, 59, 63, 67, 72, 87, 88, 99, 107, 144
Marine Infrastructure 22, 23
Marine Police 71, 73, 75, 76, 78, 94
Marine Pollution 26, 60
Maritime Consciousness 16, 57, 64, 68, 69
Maritime Corridors 21
Maritime Crimes and Illicit Activities 24, 25, 71, 73, 83
Maritime Domain Awareness 33, 34, 36, 38, 39, 40, 75, 79, 81, 86, 94, 99, 107
Maritime Economy 17, 19, 20, 22
Maritime Engagement i, 55, 57, 66, 69, 82
Maritime Geography 15
Maritime Governance 59, 60
Maritime Incidents 25, 27, 61
Maritime Interdiction Operation 57, 67, 94, 114, 139
Maritime Leverages 17
Maritime Outlook 16
Maritime Rescue Coordination Centre 63
Maritime Resource Theft 25, 26
Maritime Security Governance 11, 79, 82
Maritime Security Imperatives 23
Maritime Security Influences 15
Maritime Security Objective 6, 7, 8
Maritime Strike 113, 114, 135, 139
Maritime Terrorism 24, 25, 67, 71, 81
Media Engagement 68
Medical 20, 21, 46, 67, 68
Mine Counter Measures 114, 140
Mine Warfare 139
Mission Based Deployments 57, 94, 140
Multi-Domain Operations 107, 109

N

National Aim 4, 5
National Maritime Interests ii, 3, 6, 7, 8, 8, 15, 23, 140
National Security Objectives 3, 4, 5
National Security Policy 3, 4, 5
National Security Strategy 3, 4, 5, 140
National Values 4, 140
Naval Combat Capability 34
Naval Communication Network 38
NC3I 38, 40, 77, 78
Network Centric Operations 40
Networks 33, 34, 36, 38, 56, 75, 86, 99, 107
NMDA 40, 75, 83
No First Use 87
No War No Peace ii, 8, 9, 46, 85, 92, 95, 97, 98, 99, 100, 106, 108, 120
Non-Combatant Evacuation Operations 62, 67, 140
Non-State Actor 88, 93
Nuclear 87, 88, 93
Nuclear Deterrence 87, 88

O

Offshore Defence 38, 72, 107, 111, 114

Offshore Mineral Reserves 18
Op Logistics 34, 45, 46, 47, 56, 107
Operational MDA 39
Operational Risk 120

P

Partnerships 47, 56, 88, 91, 94, 111, 119, 122
Patrol 68, 76, 81, 113, 141
Physical Component (of Capability Development) 35, 36, 45
Piracy 24, 25
Ports 22
Power Projection 86, 107, 110, 113
Preferred Security Partner 58, 61, 67, 69
Preparedness 106
Presence and Surveillance Missions 57, 94, 102, 142
Protection 7, 63, 66, 74, 81, 102, 107, 114

R

Readiness 34, 44, 43, 45, 46, 62, 91, 94, 101, 102
Reconnaissance 10, 66, 82, 94, 107
Regional MDA 40
Resourcing Risk 121, 122
Risk Management 119
Rules of Engagement 62, 76, 100, 102

S

SAGAR 16, 55
Sagarmala 16, 20, 22, 23, 47
SAR 39, 59, 63, 67, 68
Satellite 75
Sea Control 108, 113, 142
Sea Denial 113, 143
Seabed 18, 39
Shadow Fleet 26
Ship to Shore Maneuver 113, 135
Shipping 7, 16, 19, 24, 51, 63, 108, 111
SLOC 114, 141, 142
SLOC Interdiction/ Protection 114
Smuggling 24, 25, 144
Space 10, 39, 40, 49, 86, 121
Special Forces 72, 82, 94, 102, 110, 113
State Marine Police 71, 73, 75, 76, 78, 94
Stocking 46
Strategic Communication 33, 41, 42, 91
Submarine 59, 66, 67, 113, 144
Submarine Cables 22, 23
Support Organisation 43, 44, 46, 57, 61, 66
Surface Action Group 144
Surveillance 10, 39, 57, 66, 76, 79, 81, 94, 102, 138, 142

T

Threat Assessment 75, 100
Trade i, 3, 7, 8, 18, 19, 20, 21, 24, 25, 19, 107, 111
Trade Interdiction 107, 111, 112
Trafficking 24, 25, 27, 67, 144
Training 36, 49, 56, 59, 66, 67, 76, 79, 83, 93, 115

U

Uncrewed 9, 10, 38, 72, 74, 76, 106
Underwater Domain Awareness 39, 40, 94

V

VBSS 66, 78, 79, 82
Vertical Envelopment 113

W

War Reserves 107
War Watching Organisation 114
Whole of Nation Approach 34, 47, 48, 49, 51, 56, 87, 90, 100, 107






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