



# Coastal Security: State of India's Preparedness

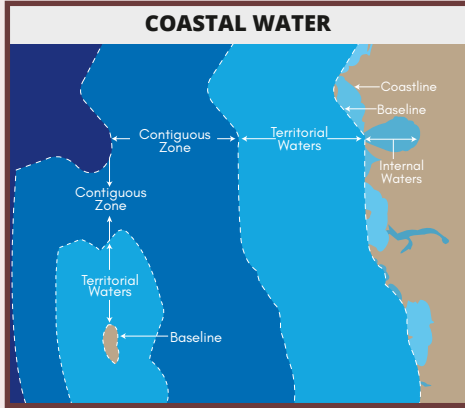
## INTRODUCTION

India's quintessential maritime character and vital geo-strategic location are twin factors that have defined her growth as a nation and evolution as a cosmopolitan civilisation. But this seamless nature of the maritime domain also enables ready flow of threats and challenges. In recent years, the rise in non-traditional threats, especially maritime terrorism (which includes the infamous 26/11 terror attack), has necessitated increased focus on coastal and offshore security. Even before the 26/11, security vulnerabilities used to plague India from maritime spaces.

Accordingly, the coastal and offshore security apparatus has evolved as per changes in the nature and type of threats, with increased involvement of the Indian Navy and Coast Guard (CG) in support of the state police and security agencies. Recent attempts in this direction include changes in the Coast Guard Act, 1978 to give more teeth to CG and the proposal to establish a Maritime Theatre Command (MTC) by 2022 to enhance coordination between the defence forces. However, despite some success in key areas, the littoral apparatus remains riddled with loopholes and persistent flaws in the existing architecture that threaten to unravel the gains made in recent years.

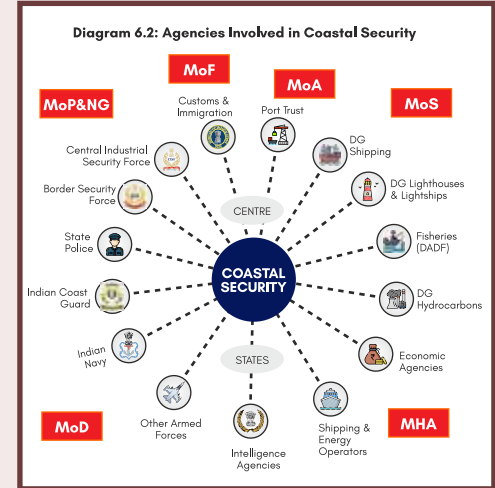
In this context, it is critical to understand the meaning of coastal security, Why is coastal security considered indispensable to India's internal security? Why Indian Coasts remain vulnerable to seaborne threats? How India's Coastal security architecture has evolved over the years? What loopholes still exist in India's Coastal Security architecture and how India could fill these gaps to effectively confront the multifarious challenges it faces in the complex maritime environment of the 21st century?

# WHAT DO WE MEAN BY COASTAL SECURITY?



- Coastal Security is understood as a **subset of maritime security**. It involves the security of the coastal water zone against any threat or challenge that originates from the sea.

- ◆ Coastal water zone refers to the water area seawards of the Indian coast up to the limit of India's contiguous zone, or the International Maritime Boundary Line (IMBL) whichever is less.



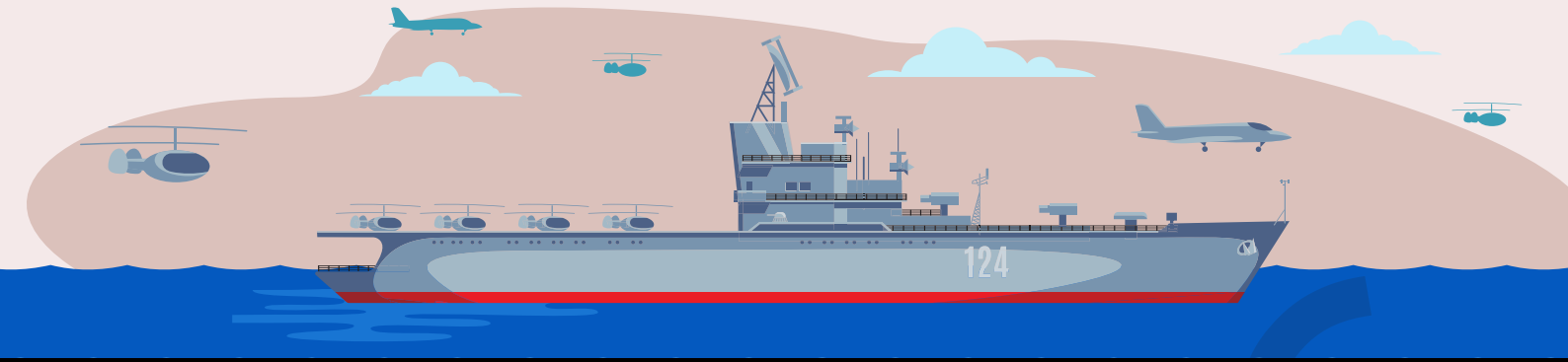
- Coastal security has a wide connotation encompassing **maritime border management, island security, maintenance of peace, stability and good order in coastal areas** and enforcement of laws therein, security of ports, coastal installations and other structures including Vital Areas and Vital Points (VAs/VPs) and vessels and personnel operating in coastal areas. **An effective organisation for coastal security also facilitates coastal defence.**
- The coastal security is **ensured through coordinated efforts amongst multiple stakeholders** at the Centre and States (refer the infographic). All these stakeholders are involved in providing comprehensive security against both traditional and non-traditional threats.

# WHY IS COASTAL SECURITY CONSIDERED INDISPENSABLE FOR INDIA?

India's development is closely linked to maritime environment and hence it is critical to ensure security and sea governance of coastal areas. Secure coasts play a key role in the following aspects:

- **National Security:** The elaborate security arrangements on land forced the terrorists and illegal migrants to look towards the sea where security measures are comparatively lax, enabling them to 'move, hide and strike' with relative ease. Plugging this loophole is imperative to enable a holistic national security architecture.
  - ◆ **Protecting strategic assets:** The Indian coasts also have a number of strategic installations such as naval bases, nuclear power plants, satellite and missile launching ranges, and ports. These strategic installations are vital for the security, development and prosperity of the country, making them high value targets for the terrorists.
- **Economic development:** Coastal region plays an important part in India's economic development. Security of the region will have a direct bearing on following areas-
  - ◆ **Trade:** India's sea dependence for oil is about 93% which includes India's offshore oil production and petroleum exports. Further, 95% of India's trade by volume and 68% of trade by value comes via the Indian Ocean.
  - ◆ **Fish production:** India is the second largest fish producer in the world with a total production of 13.7 million metric tonnes in 2018-19 of which 35% was from the maritime sector. In the same period India had exported Rs 46,589.37 crore worth of marine products.
    - ✓ The region also **serves as an important source of livelihood** for the fishing community.
    - ✓ The large scale fish production also plays a **key role in ensuring food and nutritional security.**
  - ◆ **Strategic minerals:** India **hosts some of the largest and richest shoreline placers.** The beach and dune sands in India contain heavy minerals (HMs) like ilmenite, rutile, garnet, zircon, monazite and sillimanite.
- **Geostrategic interests:** The Indian Ocean Region (IOR) has become a pivotal zone of global strategic competition. Security and stability of India's coast is thus necessary for:
  - ◆ **Countering Chinese influence: China is vigorously pursuing the 'String of Pearls' doctrine** i.e. economic and/or military engagements with countries in the Indian Ocean littorals with a strategic outlook of encircling the Indian peninsula. It has also garnered considerable influence among littoral countries in the IOR by leveraging its power of veto in the UN Security Council (UNSC).
  - ◆ **India's aspiration of becoming a 'net security provider' in the IOR:** India is seen as a lynchpin for the Indo-Pacific strategy by the UK, US, Australia, Japan, France among others to counter China. We could hedge on their support only if we enhance our own capability by strengthening our coastal as well as maritime security.

- ◆ **India's Humanitarian And Disaster Relief Operations (HADAR):** It has helped India position itself as the first responder to humanitarian crises in the IOR for decades. For example in 2014, when Maldives main water treatment plant got damaged, India was the first country to supply fresh water to it. Enhancing coastal security would equip India with resources (like aircraft, helicopters, and support vessels etc.) to deal with natural disasters and associated conflicts arising in future in a more efficient and comprehensive manner.
- **Dealing with climate induced crises:** Coastal zones are already under threat from environmental degradation through ballasting and introduction of invasive species, industrial pollution, groundwater overdraft, sand mining, development activities and river input of polluted sediments. At the same time, sinking of islands due to rising sea level in Indian Ocean may result in the rise of climate refugees. Sustainable management of coastal resources, reducing their illegal exploitation, coastal surveillance and intelligence gathering may prove to be effective in dealing with these issues.

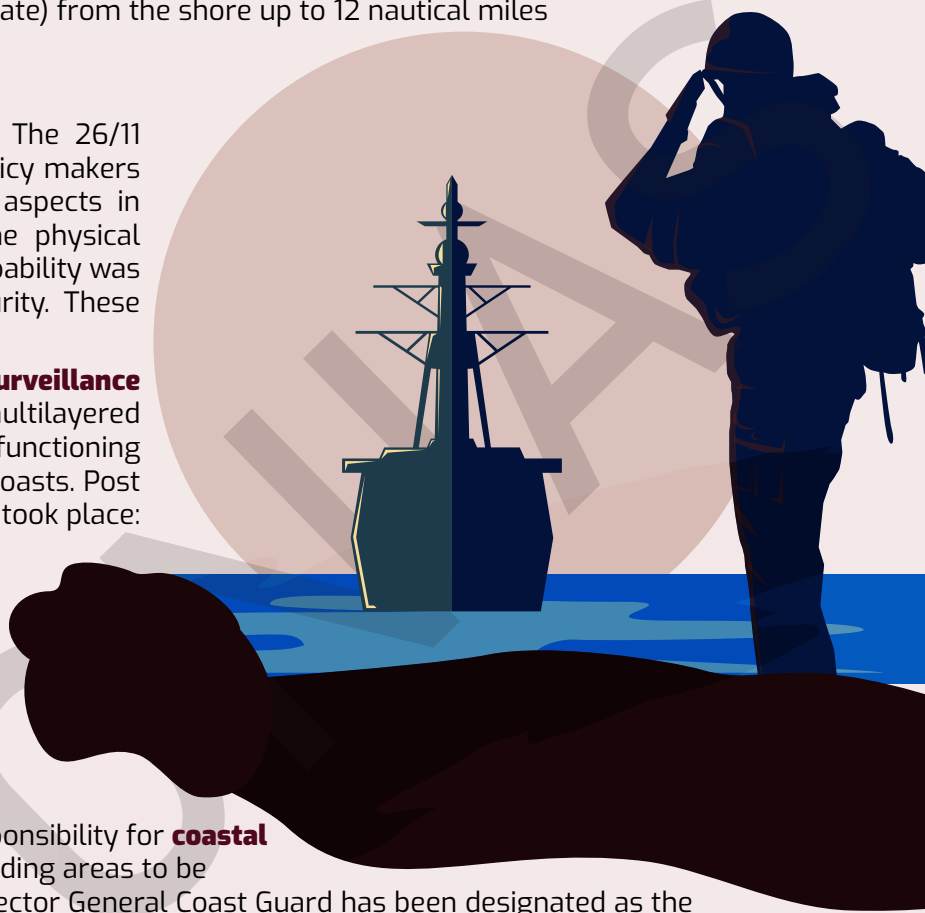


## WHY INDIAN COASTS REMAIN VULNERABLE TO SEABORNE THREATS?

- **Strategic location:** India is surrounded by water on three sides and has island territories. It has 7516.6 km long coastline to protect. The physical proximity of Indian coasts to politically volatile (gulf countries) and economically depressed (Eastern African Countries) makes it vulnerable to maritime terrorism, smuggling and trafficking.
  - ◆ The eastern Indian seaboard on the other hand has been increasingly witnessing a steady increase in illegal migration from Bangladesh. Various 'push and pull' factors such as poverty, demographic pressure, religious persecution in Bangladesh and the promise of better opportunities in India have contributed to this migration.
- **Difficult Topography:** India's coasts are characterised by a diverse range of topography such as creeks, back waters, rivulets, estuaries, mudflats, hills etc. The water bodies and river channels run deep inside the coasts, making the shoreline highly indented. Due to their remoteness these coastal approaches to the mainland often remain unguarded, or poorly guarded, thereby providing ideal spots for the clandestine landings of arms, explosives and other contraband by smugglers as well as infiltration by terrorists.
  - ◆ For instance, in Gujarat, a channel nicknamed the HaramiNala, which originates from India, enters Pakistan, and re-enters India, has become a preferred route for infiltrators and smugglers.
- **Maritime Traffic:** The Indian coast has been witnessing a constant rise in the range and number of vessels (due to rise in trade via sea route) that ply in its coastal waters. Further, IOR is also the busiest maritime trade route, with 11,000 to 12,000 ships present in it at any given time. Monitoring these vessels and regulating their movement offer quite a challenge for the security forces as well as the law enforcement agencies.
- **Disputed Maritime Boundary:** Unsettled maritime boundaries not only pose serious security challenges but also hinder offshore development. India's maritime boundaries with Pakistan and Bangladesh are not delineated because of overlapping claims.
- **Straying of Fishermen beyond the International Maritime Boundary Line (IMBL):** Many a time fishermen cross the IMBL to explore new fishing grounds and enter the territorial water of Pakistan, Sri Lanka. The arrests of large numbers of Indian fishermen as well the confiscation of their trawlers/boats has, however, raised security concerns.
  - ◆ Many security analysts fear that Pakistan could exploit the domain knowledge of the masters of these boats by extracting information about various landing points in India or the confiscated trawler could be used to sneak in terror operatives.

# HOW INDIA'S COASTAL SECURITY ARCHITECTURE HAS EVOLVED OVER THE YEARS?

- **Customs Marine Organisation (CMO), 1974:** Created on the recommendation of Nag Chaudhari Committee, it was mandated to conduct anti-smuggling operations. However, since the CMO was temporary in nature, not much attention was paid to strengthening this organisation. In 1982, it was merged with the ICG to avoid the duplication of efforts.
- **Indian Coast Guard (ICG), 1977:** With the enactment of the Indian Coast Guard Act, 1978, the organisation formally came into being as the fourth armed force of India. Its mandates include thwarting smuggling activities, safeguarding and protecting artificial islands, offshore terminals, installations, and other devices in the maritime zone, protecting and assisting fishermen in distress and preserving and protecting marine environment, including controlling marine pollution.
- **Coastal Security Scheme (CSS), 2005:** Instituted originally in 2005 and implemented by the Department of Border Management, Ministry of Home Affairs. The aim of the CSS was to strengthen infrastructure for patrolling and the surveillance of the coastal areas, particularly the shallow areas close to the coast. The marine police force was required to work closely with the ICG under the 'hub-and-spoke' concept. **The scheme provides 3 layered security system which includes deployment of-**
  - ◆ Marine police (of the respective coastal state) from the shore up to 12 nautical miles
  - ◆ ICG from 12nm to 200nm.
  - ◆ Indian Navy beyond 200 nm.
- **Coastal Security Architecture Post '26/11':** The 26/11 attack was the first instance that led the policy makers to think about mainstreaming the coastal aspects in India's security architecture. Since then, the physical assets were built up and human resource capability was also enhanced to strengthen the coastal security. These efforts include:
  - ◆ **Strengthening the Multilayered Surveillance System:** Before 2008, the existing multilayered surveillance system under the CSS was functioning only along the Gujarat and Maharashtra coasts. Post the 26/11 Mumbai attacks, major changes took place:
    - ✓ **Indian Navy(IN):** It was **designated as the authority responsible for overall maritime security** which includes coastal as well as offshore security. It was also made responsible for the coastal defence of the nation assisted by the ICG, the marine police, and other central and state agencies.
    - ✓ **ICG:** It was assigned the additional responsibility for **coastal security in the territorial waters**, including areas to be patrolled by the marine police. The Director General Coast Guard has been designated as the **Commander Coastal Command**, and is responsible for the overall coordination between central and state agencies in all matters relating to coastal security.
    - ✓ **Border Security Force (BSF):** The water wing of the **BSF** has been deployed along with eight floating border outposts (BOPs), for the security and surveillance of the **creeks in Gujarat and the Sunderbans**.
    - ✓ **Central Industrial Security Force (CISF):** It was entrusted with the **responsibility of the physical security of India's major ports**. **Vessel Traffic Management Systems (VTMS)** are also being installed in all the major and a few non major ports to monitor and regulate maritime traffic as well as to detect potentially dangerous ships.
    - ✓ **Sagar Suraksha Dal:** An informal layer of surveillance, comprising the fishermen community- created following the 1993 Mumbai serial bomb blasts - has also been formalised and activated in all coastal states. Fishermen groups, composed of trained volunteers, monitor the seas and coastal waters, share information about any suspicious activities or vessels at sea with security and law enforcement agencies, and also participate in coastal security exercises conducted by the ICG.





- ✦ **National Maritime Domain Awareness (NMDA) Project:** It includes an **integrated intelligence grid** to detect and tackle threats emanating from the sea in real-time. Post 26/11, it has been strengthened by establishing **NC3I network (refer the info graphic) and IMAC** that generate a common operational picture of activities at sea through an institutionalized mechanism.
- ✓ **IMAC in Gurugram, Haryana is the nodal center of the NC3I Network.** IMAC is the single point centre linking all the coastal radar chains to generate a seamless real-time picture of the nearly 7,500-km coast line. It is jointly managed by the IN and ICG.
- ✓ **Information Fusion Centre for the Indian Ocean Region (IFC-IOR):** It was inaugurated in 2018 within the premise of IMAC in Gurugram, and has started functioning as an **information** sharing hub of maritime **data** and “cuing incident responses” to maritime security situations through a collaborative approach.
- **Maritime Theatre Command (MTC):** MTC structure is proposed to integrate the assets of Indian Navy, Army, IAF and Coast Guard to achieve the goals detailed out in the Joint Forces Doctrine (JFD), 2017. It **will enable the security forces to form a 'Net-centric' Warfare model** so as to gain an advantage over the adversary using a flexible force structure to match the varied geographic domains.
- ✦ **The JFD, 2017 serves as a cornerstone document** for application of military power in a synergistic manner leading **to enhanced efficiency, optimum utilization of resources and financial savings.**



- **Inter-agency maritime exercises:** Such exercises help build the inter-service synergy, interoperability and jointness. These include-

- ✦ **'Sagar Kavach' is conducted by Indian Navy and ICG** along with other stakeholders involved in Coastal Security.
- ✦ **'Sea Vigil' is a biennial pan-India coastal defence exercise** coordinated by the Indian Navy.
- ✦ **TROPEX** (Theater-level Readiness Operational Exercise) is also conducted by the Indian Navy to test the professional skills of operators and the doctrinal acumen of commanders of the Indian Navy.
- **Increased cooperation with littoral countries:** India interacts more actively with littoral states of the Indian Ocean Region and employs maritime security engagement as a cornerstone of her regional foreign policy initiatives.
- ✦ Indian Navy also conducts multilateral exercises like MILAN (first began in 1995 and in 2020 around 40 countries were invited to participate) and CORPAT (Coordinated Patrol) with Indonesia, Thailand and Bangladesh.

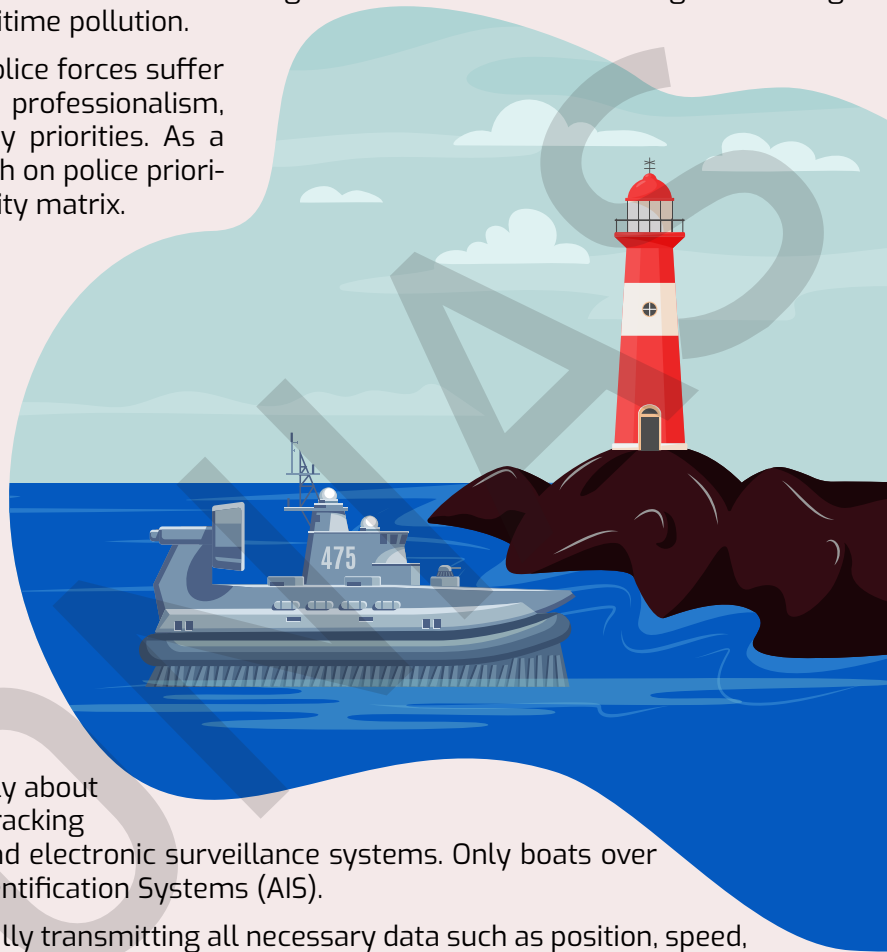
## COOPERATION WITH OTHER COUNTRIES

- **Indian Ocean Naval Symposium (IONS):** IONS was launched in 2008 by India to bring together the Chiefs of Navies and Heads of Maritime Security Organisations from the island and littoral states of the Indian Ocean. It is a biennial meeting that provides a forum for discussion of regional maritime issues and promotes friendly relationships among 24 members and 8 observers.
- **Capacity building through joint exercise with foreign Navies:** Every Year IN conducts multiple maritime exercises with friendly countries. For example: INDRA with Russia, KONKAN with the UK, VARUNA with France, AUSIndex with Australia, SIMBEX with Singapore, SLINEX with the Sri Lanka Navy.
- **White shipping agreement** allows Indian Navy to exchange data on commercial traffic with the Navies of other countries. This helps create a better picture of movements and vessels at sea.

## WHAT LOOPHOLES STILL EXIST IN INDIA'S COASTAL SECURITY ARCHITECTURE?

More than a decade after the 26/11 Mumbai attack, coastal preparedness is better than earlier, but the overall picture still remains less than satisfactory. Various reasons that account for this are:

- **Lackadaisical approach of the State governments:** Under the Coastal Security Scheme, the coastal States and Union Territories are required to establish coastal police stations, raise marine police and procure boats to patrol the shallow coastal waters. However, slow pace of **construction of coastal police stations and limited personnel allotment** by most of the states has resulted in **suboptimal development and utilization of the coastal security architecture**. For example, according to a CAG report of 2015, manpower shortage proved to be a major hindrance in functioning of the 18 marine police stations on Odisha's 480 km-long coastline.
- **Multiplicity of agencies:** There are approximately 15 agencies involved in various facets of coastal security, this results in poor coordination among these agencies leading to issues like inadequate utilization of resources, duplication of efforts and inconsistent implementation of coastal security initiatives. The National Committee for Strengthening Maritime and Coastal Security (NCSMCS), which presently coordinates joint activities, still remains an ad hoc arrangement.
  - ✦ Multiplicity of agencies also results in **ambiguity of jurisdictions of various bodies**. For instance, in case of the security of oil infrastructure. Legally, the ICG is mandated to protect the artificial islands and offshore terminals, but the task of protecting Single Point Moorings (SPMs) (where the crude oil is imported), 15 nautical miles from the shoreline, must be performed by the CISF. CISF on the other hand claims that they lack required assets and trained personnel to discharge their function.
- **Disproportionate focus on terrorism:** Indian security agencies have tended to predominantly focus on the terrorism threat. This has placed less emphasis on non-traditional challenges such as human trafficking, IUU fishing, climate-induced crises, threat of piracy and maritime pollution.
- **Lack of professionalism in police forces:** The police forces suffer from political interference and thereby lack professionalism, which reflects in terms of poor public security priorities. As a result, coastal security can never figure very high on police priorities and proves a weak link in the national security matrix.
- **Marine Police remains the weakest link in India's coastal security system:** Marine police duties require special skills such as sea faring and sea combat, ability to handle boats, etc. Presently, the marine police force is manned by personnel derived from the central pool of the state police. Thus, the force consistently falls short on human resource capabilities.
  - ✦ Also, **fishermen pool could provide suitable candidates** for the marine police profile but no concerted effort has been made by the states to recruit them. Similarly, a **shortage of technical staff for running and maintaining the boats** is another issue which the marine police have to grapple with.
- **Role of Technology:** The latest audit showed only about 1,000 vessels were actually equipped with the tracking facilities like Coastal radar systems, sensors and electronic surveillance systems. Only boats over 20 m in length are eligible for the Automatic Identification Systems (AIS).
  - ✦ AIS are designed to be capable of automatically transmitting all necessary data such as position, speed, course, cargo and Maritime Mobile Service Identity (MMSI) to other ships and coastal authorities.
- **Port security:** Port security has emerged as one of the most neglected areas in littoral security architecture. A recent IB audit noted that the vast majority of minor ports in India have little or no security cover, and many measures taken to secure the coastline have been quite ineffective.



## HOW COULD INDIA FILL THE GAPS IN ITS COASTAL SECURITY ARCHITECTURE?

- **Coastal security Bill:** Statutory duties of government departments, Port trusts, state maritime boards, non-major ports and private terminal operators and other stakeholders need to be clearly outlined, as also minimum standards of port security requiring statutory compliance. The proposed bill will provide a comprehensive legislative framework for the coastal security covering both the shipping and port sectors.

- ◆ The Bill provides for creation of a National Maritime Authority (NMA) which would potentially address the coordination and jurisdiction issues due to multiplicity of agencies operating in the coastal region.
- **Strengthen the surveillance system:** For better domain awareness, India needs better surveillance coverage. At present, authorities are focused on expediting the installation of coastal radar chains and AIS stations and ensuring broad access to information. These efforts need to be complemented with mandatory fitment of AIS on power-driven vessels with a length more than 10m.
- **Strengthen ICG:** This could be done by providing advanced surveillance and security gadgets and requisite legal powers. Also, ICG could be given an effective backup by the Central Armed Police Forces (CAPF) deployed in the coastal areas, such as the CISF and BSF.
- ◆ **Ambiguities from the Coast Guard Act, 1978 need to be removed.** For example, the ICG could be treated as a border guarding force and brought under the Ministry of Home Affairs (MHA). This will ensure administrative cohesion and revenue flows for it to grow as an independent entity.
- **Central Marine Police Force (CMPF):** It could be created as an alternative to the existing State Marine Police. CMPF would only be responsible for Coastal Security for territorial water and thus could be provided with special training or recruited for specific purpose. The creation of CMPF would also relieve the police forces of an additional responsibility for coastal security.
- **Promulgate the National commercial maritime security policy document:** This document should articulate its strategic vision for maritime security. This could also be complemented with a national strategy for Commercial Maritime Security for efficient, coordinated, and effective action for protection of the port and shipping infrastructure.
- **Coastal Community Participation:** Effective involvement of the fishing community, and the larger coastal community, has the potential to significantly complement efforts of the security agencies, and to serve as the 'eyes and ears' of security agencies.
- **Learnings from international practices:** (refer box).
- **Reinforce Coastal Regulation Zone (CRZ) regulations:** There is an apprehension among environmentalists that CRZ laws are being diluted in favour of tourism, shrimp farming and industry lobby groups, without taking into consideration the views of experts or the public. This should be addressed by conducting public consultation.
- **Recalibrate defence expenditure:** Due to a meager allocation of 15% of India's military budget, the Indian Navy has limited capacity and resources to strengthen its security efforts in the IOR. Also, salaries and pensions account for around 59% of India's defence budget **(in comparison, US and UK spend only 38% and 30.6% respectively)**. The heavy outgo on personnel costs results in India having the lowest percentage spent on equipment modernization.

## INTERNATIONAL PRACTICES TO ENSURE COASTAL SECURITY

### Israel

- It has entrusted the **responsibility of coastal defense to its navy**.
- It has also constructed a **virtual barrier along its maritime boundaries** by embedding sensors in the buoys installed to demarcate its borders.

### Australia

- Its strategies include posting Australian Custom and Border Protection Services (ACBPS) officers overseas to **liaise with offshore partners as well as the conduct of pre-arrival screening of passengers for identifying high risk cargoes and people**.

### US

- It receives **advance notification for vessels arriving in US ports** for the better evaluation of terrorists, risk ships, cargoes, and passengers.
- The Customs-Trade Partnership against Terrorism **(C-TPAT) integrates the private sector into the maritime security system**.

## CONCLUSION

Coastal security plays a major role in the economic development and prosperity of the country and is also important for meeting the geostrategic goals of the country. Review of coastal security apparatus in India is a continuous process. Government has initiated several measures to strengthen Coastal Security from improving surveillance mechanism to increasing international cooperation. However, the challenges to India's coastal security are plenty. While terrorism has proven the most potent threat over the last few years, a whole range of issues ranging from migration to smuggling have plagued Indian coasts. The tussle between the states and the centre along with absence of an integrated approach to coastal security has aggravated the situation further. It is, therefore, imperative that corrective measures are urgently implemented to address these inadequacies and to realize the potential of the maritime sector.



## TOPIC AT A GLANCE

### Significance of Coastal Security for India

- Coastal security **plays a key role in enabling a holistic national security architecture.**
- It plays an **important part in India's economic development** with a direct bearing on areas like trade, fish production and strategic mineral exploration.
- **Fulfilling India's geostrategic interests in the IOR** such as countering Chinese influence, becoming a net security provider and executing HADR operations.
- Dealing with climate induced crises such as rising sea level and environmental degradation due to developmental activities.



### COASTAL SECURITY

- It is a **subset of maritime security and involves the security** of the coastal water zone against threats originating from the sea.
- It is **ensured through coordinated efforts amongst multiple stakeholders** at the Centre and State level.



### Evolution of Coastal Security Architecture

Year	Developments
1974	● <b>Customs Marine Organisation (CMO), was created</b> to conduct anti-smuggling operations.
1977	● <b>Indian Coast Guard (ICG), was established to prevent</b> smuggling activities, protecting installations, assisting fishermen and preserving marine environment.
2005	● <b>Coastal Security Scheme (CSS)</b> to strengthen coastal infrastructure for patrolling and the surveillance through a 3 layered security system.
Post 26/11 attack	<ul style="list-style-type: none"> <li>● <b>Multilayered Surveillance System was strengthened</b> with expansion in roles and duties of Indian Navy, ICG, BSF, CISF etc.</li> <li>● <b>NC3I network and IMAC</b> were established to strengthen maritime domain awareness.</li> <li>● <b>Regular conduct of Inter-agency maritime exercises to build</b> synergy, interoperability and jointness.</li> <li>● <b>Increased cooperation with other countries</b> for information sharing ,capacity building etc.</li> </ul>
2017	● <b>Maritime Theatre Command is proposed</b> to integrate the assets of Indian Navy, Army, IAF and Coast Guard to form a <b>Net-centric Warfare model.</b>



### Gaps in Existing Architecture

- **Lackadaisical approach of the State governments** resulting in slow pace of construction of coastal infrastructure
- **Multiplicity of agencies** resulting in poor coordination
- Disproportionate focus on **terrorism** resulting in less emphasis on non-traditional threats.
- **Lack of professionalism and capacity constraints in marine police forces**
- **Technological backwardness**
- **Port security remains neglected** in most of the minor ports



### Ways to Fill Gaps in Existing Architecture

- **Enacting the proposed Coastal security Bill** that will facilitate the creation of NMA.
- **Strengthening the surveillance system**
- **Strengthening ICG**
- Creation of Central Marine Police Force (CMPF)
- **Promulgate the National commercial maritime security policy document** for efficient, coordinated, and effective actions.
- **Effective involvement of Coastal Community such as fishermen.**
- **Reinforcing Coastal Regulation Zone (CRZ) regulations**
- **Recalibrate the defence expenditure** to increase capacity and resources.