

INDIA'S NATIONAL SECURITY

A MARITIME SECURITY
PERSPECTIVE

EDITOR

DR SURESH R.



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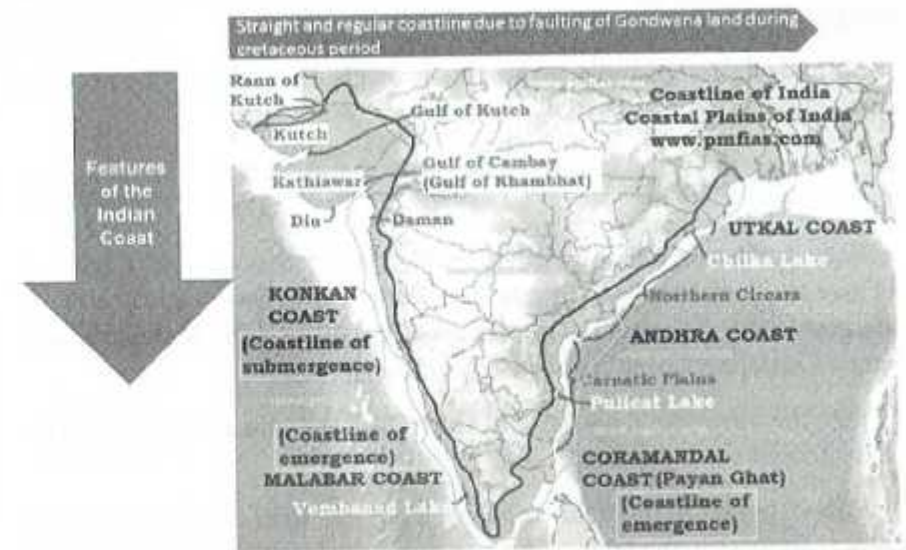
Features of Indian Coastal Area in the backdrop of Coastal Security

Dr P.S. Swathi Lekshmi

The Republic of India has nine coastal States and four Union Territories. It is blessed with a long coast line of 7,517 Km, of which 5,422 kms lie in the mainland and the rest is distributed on the islands in the nine States and four Union Territories. The coastal Union Territories which are island areas being Andaman and Nicobar and the Lakshadweep islands, the former with a coastline of 132 km and the latter with a coastline of 1,962 km. The highly indented coastline of the country makes it vulnerable to security threats and infiltration by terrorist and militant attack in addition to other threats such as smuggling and carrying of arms and ammunition.

It is estimated that 95 percent of India's trade by volume and 70 percent by value is done through maritime transport. This assumes strategic importance more so because India sits centrally at the cross roads of Trans Indian Ocean Routes. The cargo ships sailing between East Asia, America, Europe and Africa pass through Indian Territorial waters. Added to this, there has been an unsettled and disputed nature of some of India's maritime boundaries.

India shares 14,880 km of boundary with Pakistan, China, Nepal, Bhutan, Myanmar and Bangladesh (Das, 2010). Including a small segment with Afghanistan (106 km) in northern Jammu and Kashmir (J&K), now part of the Northern Areas of Pakistan Occupied Kashmir (POK), India's land borders exceed 15,000 km shared with seven countries. (Kanwal, 2007). The coastline of peninsular India is bordered by the Bay of Bengal in the east, the Indian Ocean in the south and the Arabian sea in the west. India shares its maritime boundaries with seven countries namely, Pakistan, the Maldives, Sri Lanka, Indonesia, Thailand, Myanmar and Bangladesh (Roy-Chaudhury, 2005).



Along the East coast of India, the coasts are known by specific names such as along Odisha coast, it is known as Utkal Coast, and from the southern limit of the Utkal plain starts the Andhra Coast, and the south of the Andhra plain lies the Tamil Nadu Coast. The Tamil Nadu coast and parts of Andhra coast together are known as Coramandal Coast or Payan Ghat. The west coast strip extends from the Gulf of Cambay (Gulf of Khambhat) in the north to Cape Comorin (Kanniyakumari). Starting from north to south, it is divided into (i) the Konkan coast, (ii) the Karnataka coast and (iii) the Kerala coast.

It is made up of alluvium brought down by the short streams originating from the Western Ghats.

It is dotted with a large number of coves (a very small bay), creeks (a narrow, sheltered waterway such as an inlet in a shoreline or channel in a marsh) and a few estuaries. (Marine Landforms).

Thus the Konkan coast consists of the Maharashtra coast and Goa coast, the Malabar Coast consists of Karnataka and Kerala coasts. Along the west coast, the Konkan coast is called as the coastline of submergence and the Malabar Coast, coastline of emergence. Coastline of emergence is formed either by an uplift of the land or by the lowering of the sea level. Coastline of submergence is an exact opposite case. Bars, spits, lagoons,

salt marshes, beaches, sea cliffs and arches are the typical features of emergence. (Marine Landforms)

The east coast of India, especially its south-eastern part (Tamil Nadu coast), appears to be a coast of emergence.

The west coast of India, on the other hand, is both emergent and submergent.

The northern portion of the coast is submerged as a result of faulting and the southern portion, that is the Kerala coast, is an example of an emergent coast. Coromandal coast (Tamil Nadu) and the Malabar Coast (Kerala Coast) is a Coastline of emergence.

On the other hand, the Konkan coast (Maharashtra and Goa Coast) is a Coastline of submergence.

Given below, in the following table are the differences with respect to Physical features between the East coast and the West coast as well as the differences from a fisheries perspective.

Differences between the East Coast and West Coast

Physical Features	East Coast	West Coast
	Lies between Eastern Ghats and the Bay of Bengal and extends from Ganga delta to Kanyakumari.	Extends from Gulf of Cambay in the north to Cape Comorin in the South.
	The predominant lagoon systems of the east coast are Chilka lake and Pulicat lake.	Konkan (Maharashtra and Goa) Karnataka, Malabar and Kerala Coast
	Marked by deltas formed by	
Differences from a Fisheries point of view		
Fish landings	30 % of fish landings take place.	70% of fish landings take place.
Continental shelf	Narrow and its width varies from 80-180 km.	Broad and its width varies from 50-340 km.

Physical Features	East Coast	West Coast
State of sea	More turbulent due to frequent weather conditions/weather systems	Less turbulent except during south west monsoon.
Phytoplankton production	Low production compared to west coast (November-December maximum production) and June-September is the secondary peak.	High production compared to East Coast (June-September maximum production, November-December, secondary peak.)
Temperature fluctuation	Fluctuations are less between 27 and 29 Degree Celsius.	Fluctuations are more ranging between 23 and 29 Degree Celsius.
Upwelling	Not common but reported to occur.	Common during monsoon and post monsoon season.(May-November)
Salinity	Lower (30-34 ppt)	Higher (34-37 ppt)
Nutrients	High concentration not present.	High concentration present during upwelling.

Coastal Resources of India:

The following are the coastal resources of the country.

Length of coastline	7517 km
Exclusive Economic zone	2.02 million sq. km
Continental shelf	0.506 million sq.km
Rivers and canals	1.96 lakh km stretch
Reservoirs	29.07 lakh hectares
Ponds and tanks	24.40 lakh ha
Beels and Derelict waters	7.98 lakh ha
Brackish waters	12.40 lakh ha

India is thus blessed with an abundance of water bodies along its coastline as well as hinterland and the land borders consist of undulated

and ragged terrains, marshy lands, evergreen jungles, deserts and snow covered peaks which provide the perfect cover for terrorist infiltration either through land border or sea, aids in smuggling of arms, ammunition, narcotics, drugs and other contraband consignments which offer vantage points for such dreaded activities.

Major Issues from the point of Maritime Security

Cross Border Terrorism with Pakistan

The Radcliffe line which defined the Indo-Pakistan border and which was formed in 1947, defines the areas bordering the erstwhile states of Jammu and Kashmir (presently, the Union territories of Jammu and Kashmir and the Union territory of Ladakh), Gujarat, Punjab and Rajasthan. The main challenges encountered along this border are infiltration and smuggling. Along the border of India and Pakistan lies Sir Creek estuary, which is a 96 km tidal estuary and the dispute arises between the claim on the borderline by India and Pakistan. The first verdict regarding the claim was reached in 1968 wherein, Pakistan was awarded 10 % of its claim along the 9,100 sq km and India, 90% of its claim along the border. There has been 12 rounds of talks since 1969 with no major breakthrough and in 2012, India proposed that the maritime boundary should be demarcated as per the technical provisions of the International Law of the Sea which Pakistan had staunchly refused. Pakistan has said that an international arbitration should be called for, for which India has not agreed since it wants the bilateral disputes to be resolved without the intervention of a third party.

Indo Sri Lankan Border dispute:

This issue deserves strategic importance since, the bone of contention between the two countries arises mainly due to the claim for fisheries resources. Palk Bay is a strip of water that separated India and Sri Lanka. This Bay defines the International maritime boundary across the two countries. The Palk Strait is 22 miles of water expanse and separates the northern coast of Sri Lanka from the south east coast of India. The maritime agreements between the two countries were started in 1974 and 1976 which adversely affected the livelihoods of thousands of Indian fishermen. The Indian fishermen were not willing to give up the privileges of fishing rights across the maritime border which they had enjoyed for centuries. The magnetic pull exerted by the rich prawn resources on which existed on the other side of the Indo Sri Lankan maritime boundary, on the Indian fishermen often led to the latter being caught and seized with their men and materials and fishing boats, fired at, intimidated or imprisoned.

There are also frequent reports of Sri Lankan fishermen infringing in to Indian waters and resorting to illegal fishing activities mostly involving in multiday fishing, off the coast of Tamil Nadu, Andhra Pradesh, Kerala and the Andaman and Nicobar Islands.

Indo-Bangladesh border dispute

Along the India Bangladesh border lies the New Moore island which is mainly uninhabited but both countries laid claim to this because of the abundance of oil and natural gases in this region. In 2014, by virtue of the United Nations tribunal, nearly four fifth of the 25,000 sqkm of the exclusive economic zone was demarcated for Bangladesh. The verdict, binding on both countries, opens the way for Bangladesh to explore for oil and gas in the Bay of Bengal, and ends a dispute over a sea border with India that has disrupted ties between the neighbors thus putting an end to the 40 year old maritime dispute between both the countries.

Role of Indian Fishermen in maintaining Coastal Security:

- Concepts of Territorial waters, EEZ, Continental Shelf came in to existence in 1976 following the UNCLOS meeting in 1973.
- Indian Coast Guard (ICG) was established in 1977, under Ministry of Defense (Surveillance from shoreline to 12 nm) along with marine police, beyond 50nm by Indian Navy.
- Fishermen groups designated as "*Sagar Suraksha Dal*" participate along with ICG for monitoring sea and coastal waters and for reporting suspicious activities.
- Marine police have formed "*Gram Raksha Dal*" (*Respectable village elders*)
- Indian navy and ICG conduct periodic community interaction programmes for raising awareness among fishing communities regarding the importance of up keeping coastal security.

Review of Coastal Security Mechanism in India:

- Vessels of coastal States are registered under uniform registration system for different color codes for fishing trawlers of different States.
- Fishing trawlers 20 mts and above to be fitted with type B transponder.

- Smaller vessels have Radio Frequency Identification Device (RFID).
- Distress Alert Transmitters (DAT) to alert Coast Guard at times of distress.
- Coastal security helpline nos 1554 (Coast guard) and 1093 (Marine Police) given to fishermen.
- Biometric data to identify fishermen at sea through issue of I.D Cards (*fed into centralised data base*).

Coastal Surveillance Network Project:

- Real time surveillance up to 25 nm in to sea
- Setting up of 46 static radars along coastline
- National Automatic Identification System (NAIS) to track and monitor vessels by receiving feeds from AIS transponders in sailing vessels
- Vessel Traffic Management System (VTMS) Installed in all major ports
- Fishermen offer to be sentinels of the Indian Coast (*Mail Online, July 21, 2016*)

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