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India's Coastal Security Challenges and Policy Recommendations

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"India is giving the highest priority to fight sea-based terrorism and necessary resources are being allotted"

Shri Mullappally Ramachandran, Minister of State for Home, in a written reply in the Rajya Sabha on March 10, 2010

Introduction

The November 2008 terrorist attacks on Mumbai—the commercial capital of an economically resurgent India—left a deep and indelible impact on the Indian security psyche. The attacks exposed the lackadaisical attitude of the Government, at both the Central and state level, towards coastal security and the sheer ill-preparedness of the country to combat such terror threats from the seas .

Unfortunately, prior to the Mumbai attacks, coastal security and any related debate on the subject had been the exclusive preserve of the Indian Navy, the Coast Guard and some maritime specialists. For most policy makers, who suffered from varying degrees of "sea blindness", securing the country's land borders remained the dominant discourse and priority on the national security agenda. For them, the degree of threat to national security posed by smuggling and refugee flows through the Indian coasts was not considered grave enough to merit much attention. It was only after the terrorist onslaught on Mumbai that national consciousness awoke to the dire need for overhauling/rejuvenating the existing coastal security system.

One of the first steps in addressing the challenges posed by the porous maritime boundary was to comprehend the enormity of the problem: India has a 7,517 km-long coastline of which 5,423 km covers the mainland and 2,094 km encircles Andaman & Nicobar islands. Besides, with the available state of resources (both technological and in terms of manpower) it is difficult to guard the entire coastline in a fool-proof manner. Hence, the realization by the authorities for the urgent need to subscribe to capacity and infrastructure enhancement of the maritime agencies involved in coastal security and, more importantly, creating seamless interaction between them.

In view of the above factors, it is necessary to evaluate and classify the types of asymmetric threats emanating from the seas. These can be classified into three threat levels, depending on the extent of immediate damage that each is capable of causing:

Threat Level 1: The highest amongst all the levels, it would imply penetration by non-state actors and terror attacks on population centres along the coast, vital installations like atomic power plants, oil platforms, naval/military/coast guard bases and industrial centres. Attacks on these areas would not only be financially

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disastrous for the nation but due to the associated/collateral damage, they could create a fear psychosis amongst the people.

Level 2: Threats posed by organized gangs carrying out smuggling of narcotics, arms and explosives would fall in this category. These criminal groups and gangs, operating for profit, would also cause serious domestic security concerns by their networking with terrorists and providing logistical support for terror operations ashore. This happened in the case of the 1993 serial bomb blasts in Mumbai when the explosives used were smuggled through the Raigad coast of Maharashtra with the active connivance of the Indian customs officials.

Level 3: The third threat level would include consequential and indirect threats; its ambit would cover the vulnerability of the Indian coast to illegal inflow of migrants and refugees from Bangladesh and Sri Lanka, especially along the Odisha and Tamil Nadu coasts. Though such people do not pose a direct security threat, the probability of terror operatives sneaking into the country in the guise of refugees cannot be ruled out. Numerous fishing boats and dhows which operate from the coast could also be included in this level as, apart from legal fishing, they could be diverted and used for smuggling of arms, ammunition and infiltrators.

The situation is aggravated by the fact that it is impossible to check the thousands of boats for suspicious cargo. Hence the need for the Automatic Identification System (AIS), which is likely to be introduced compulsorily for smaller boats (less than 300 tons). However, this may turn out to be a financial burden for the poor fisherman who has to purchase the system for fitment¹. (The fitment of AIS on fishing vessels above 20 mts in length has already been made compulsory by the Government.)² Ironically, while on the one hand the fishing boats are viewed with a degree of apprehension, on the other, fishermen operating from the coast form the 'eyes and ears' of the security agencies and can be used to report suspicious events/intruders to the security agencies; in fact, they form one of the most important links in the entire coastal security intelligence apparatus.

Earlier Attempts at Coastal Security

While there have been numerous attempts at 'securing' the Indian coastline in the past, the first defining maritime incident that led to enhanced awareness about the need for coastal security was the Mumbai serial bomb blasts in 1993. The government's response

to the revelation that the explosives for the blasts were smuggled through the Raigad coast of Maharashtra in connivance with Customs officials was to launch Operation Swan in September 1993. This operation, involving extensive patrolling by warships, was primarily aimed at preventing the landing of contraband and infiltration. However, its geographical ambit was restricted to the coasts of Maharashtra and Gujarat—thus leaving other coastal areas of the country vulnerable.

Much later, in 2005-06, the Kargil Review Committee's comprehensive recommendations prompted the Central Government to launch the Coastal Security Scheme. This was a fairly comprehensive scheme with a budgetary allocation of Rs. 371 crore. The scheme envisaged the establishment of a series of coastal police stations along with check posts in all the nine coastal states and union territories in the country. The objective was provide overall security and strengthen patrolling along the entire coastal waters and shallow waters near the coast.

Unfortunately, most coastal state governments remained unenthusiastic to this important security initiative. While some states cited financial constraints, others wanted the Centre to shoulder the entire responsibility for coastal security. Another hurdle was added by the State police forces which took the stand that they were essentially land based and should not be burdened with coastal security issues. With policing being a subject under the purview of the state, the objections of the police forces dampened the initiative considerably. The result was that infrastructure creation and acquisition for the scheme was minimal both on land and at sea, leading to the initiative lying dormant in government files.

This lack of enthusiasm took a fatal turn and resulted in the brazen Mumbai terror attacks of November 2008. Once again, the dire need to re-invigorate the entire process of establishing a robust coastal security system was reiterated. Faced with a virtual onslaught of criticism for inept handling of coastal security matters, including lack of intelligence coordination, hence preemption, lack of maritime border control and handling of the anti-terrorist operations, along with the controversial role of the media, the Government and its various departments, as well as the Indian Navy, adopted a multi-pronged approach to tackle coastal security at various levels.

Figure 1: Coastal Security Scheme



Source: Marine News, "Coastal Security Group: Marine Police Stations in Tamil Nadu, 13 Apr 2009

Several old and dormant proposals were hurriedly dusted and re-looked at. Then, with fresh inputs, the Government finally created a three-level Coastal Security Scheme (CSS) to safeguard the Indian coast. Delineating the geographical ambit of the responsibilities, it stated that:

- Marine Police would be responsible for patrolling upto 12 nautical miles from the coast.
- Indian Coast Guard to patrol from 12 to 200 nautical miles. (mainly the EEZ)
- Indian Navy to patrol beyond 200 nautical miles.

The overall responsibility for maritime security, however, continued to rest with the Indian Navy³.

Simultaneously, in Tamil Nadu a Coastal Security Group (CSG) was raised to prevent illegal migration from war-torn Sri Lanka, infiltration of militants into the state from the seas and smuggling of essential items like fuel and medicine to Sri Lanka⁴. The Group was to be headed by a senior police officer of the rank of Additional Director General and was to be entrusted with:

- Coordinating with 441 Village Vigilance Committees that had been formed in the coastal villages, the Indian Navy, Coast Guard, local Police, Fisheries Department, Customs and Revenue authorities to gather intelligence on coastal security.
- Coordinate between the 30 Marine Police Stations in seven coastal districts of Tamil Nadu (12 of which have already been created)⁵, in addition to 12 outposts and 40 checkposts.

Apart from coordination, the process of creating infrastructure become equally paramount in that:

- Each Marine Police Station is expected to have two patrol boats, built in shipyards of Goa/Kolkata.
- A total of around 200 specially trained police personnel are expected to man these stations.
- Since 2007, police personnel in batches of approximately 20 each have undergone preliminary sea training from the Coast Guard in boat handling and basic navigation skills.
- Quick Reaction Teams have been already been constituted in 14 centres, including Thanjavur, Ramanathapuram, Vellore and Villupuram, for counter-terrorism operations⁶.
- The newly constituted Organised Crime Intelligence Unit (OCIU) is expected to help in gathering coastal intelligence in addition to the normal intelligence work.
- A 12-tonne boat, imported from Greece at a cost of Rs.2.15 crore with jet propelled twin engines, each with a capacity of 575 hp that can attain a top speed of 70 km (40 + knots) per hour, has been operationalized by the Coastal Security Group. 11 more boats are expected by 2010. In addition, 12 fivetonne boats are expected to be allocated to the CSG⁷.

Measures to Upgrade Coastal Security

The following are among the measures initiated by the Central government to improve coastal security:

- Detailed directives issued to the Ministry of Home Affairs, Ministry of Defence, Ministry of Shipping, Road Transport & Highways and Ministry of Agriculture to review, upgrade and strengthen the coastal security of the country.
- All coastal states/Union Territories have been directed to:
 - Expedite the implementation of the approved Coastal Security Scheme, including early completion of construction of coastal police stations, check posts, out-posts and barracks as well as sanctioning, recruitment and training of executive and technical manpower.
 - To immediately start coastal patrolling by locally hired fishing boats/trawlers, charges being reimbursable by MHA.
 - To carry out vulnerability/gap analysis on their coasts in consultation with Coast Guard, and furnish their additional requirements for

formulation of a comprehensive proposal for further approval of the Government of India.

- Ministry of Shipping, Road Transport and Highways directed to streamline the process of registration of all types of vessels, i.e., fishing as well as non-fishing vessels, and also to ensure fitting/provision of navigational and communication equipments on these boats.
- Ministry of Agriculture, Department of Animal Husbandry, Dairies & Fisheries instructed to take steps to issue ID cards to all the fishermen.
- The Registrar General of India (RGI) given the responsibility to issue ID cards under the Multipurpose National Identity Card (MNICs) Scheme to the population in the coastal villages, including fishermen.
- While reporting a suspicious activity to the nearest police/coast guard authorities, localities were asked to give descriptive details using CYMBALS.
- CYMBALS is an acronym that helps in providing descriptive information about people, boats and vehicles.

Table 1 Cymbals

People	Boats	Vehicles	
Color (hair, eyes, clothing, skin)	Color (Paint, markings, etc.)	Color (Paint, markings, etc.)	
Year of birth, approximate age	Year (of manufacture)	Year (of manufacture)	
Make (Race, Ethnicity)	Make (make and model of boat)	Make (make and model of vehicle)	
Body (Body type, height, weight, build, etc)	Body (Length, Runabout, Cruiser, Etc.)	Body (Sedan, Truck, SUV, Van, 4-door, 2-door, Etc)	
Attire (Clothing description, dress, etc)	Accessories: (Name, antennas, flags, pennants, inboard or outboard, etc.)	All Others (Dents, Bumper Stickers, Rims, Tinted Glass, etc.)	
Looks (Hair, Scars, Tattoos, Facial hair, etc.)	License/Registration Number	License Plate Number	
Sex (Male, Female)	State of registration	State of registration	

Role of Indian Navy

In the aftermath of the Mumbai attacks, the Indian Navy came under considerable public and governmental criticism for its perceived 'lapses' in carrying out its constabulary function—that was essentially the function of the Coast Guard. In follow-up to the measures announced by the Government and its efforts at building a robust coastal security architecture, the Navy as the nodal organization for coastal security announced in November 2009 a series

of measures that were aimed at enhancing interdepartmental cooperation and overcoming some of the existing systemic lacunae.

According to the Navy, the major problem, of lack of integration, coordination and exchange of information between various agencies (numbering nearly 15) involved in various aspects of coastal security had been rectified⁸. Crucially, at the organizational level, a three Star Admiral—the Director General of Indian Coast Guard, normally an Indian Naval Officer-was designated as "Commander Coastal Command", thus reinforcing mutual cooperation between the two crucial organisations (IN and INCG) at the top-most level. Additionally, the Indian Navy set up four Joint Operation Centres, (JOCs) in Mumbai, Visakhapatnam, Kochi and Port Blair. These are manned round the clock by Navy and the Coast Guard personnel. These centres have been networked with other agencies like the Customs and Intelligence Bureau and are meant to coordinate all activities related to coastal security. In addition to these JOCs, each coastal district is also expected to have its own operations centre for coordinating activities'.

Earlier, the Government, in an effort to further enhance coastal security, announced in March 2009 that the Navy would get a new specialized force comprising 1,000 personnel and 80 fast interception craft. Termed as the *Sagar Prahari Bal*, the force would protect naval assets and bases on the west and east coast as well island territories¹⁰.

The Navy, on its part, has increased coordinated surveillance patrols along the coast. The Naval spokesman, speaking on the issue, stated that: "Patrols by the Indian Navy and Coast Guard are closely coordinated so as to maximize efforts and keep the entire coast under surveillance. The Marine Police of each coastal state has been assisted by the Navy and Coast Guard for coastal patrols. CISF units deployed at all major ports are also being similarly assisted. ¹¹"

Maritime training—or rather the lack of it—was found to be the weakest link for all other organizations except the Navy and the Coast Guard. Hence, the responsibility of providing adequate maritime training for personnel connected with coastal security duties was shouldered by the Navy. It provided training in maritime operations to nearly 1,600 marine police personnel and 263 CISF personnel at INS Chilka, the premier training establishment for sailors in the Indian Navy.

Apart from lack of coordination between various intelligence agencies-the lack of access to human and technical intelligence sources was identified as one of the weak links that had led to the Mumbai terrorist attacks. To overcome this hurdle and to increase collection of human intelligence, the vast fishing community was roped in. Various awareness campaigns for this purpose were introduced to ensure that the huge fishing communities in coastal areas were used as the 'eyes and ears' of the coastal security scheme. According to a Naval spokesman, "They could provide valuable information of any out-of-the-ordinary happenings." He added, "villagers and fishermen in almost every coastal village have been sensitized to threats from the sea and the measures they could take to contribute to coastal security. This is an ongoing endeavor; all along the coast of India all coastal districts will be visited regularly by such teams 12."

Infrastructure and Resources for Coastal Security

The Government, having realized that building a robust coastal security system requires investment in terms of financial and inventory building, allocated the following budgetary allocations and delineated the number of police stations and boats that would be allotted for coastal security functions. The resource allocations were based on the length of the coastline of each state and the associated vulnerability to maritime threats.

Table 2: State wise Resource all location.

S.No.	Name of Coastal State/UT	Coastal Police Stations	Vessels		Approved Outlay INR in lakh	Coast Line in KM *
1.	Gujarat	10	30	0	5842.60	1600
2.	Maharashtra	12	28	0	4092.60	720
3.	Goa	3	9	10	1653.50	101
4.	Karnataka	5	15	0	2711.90	300
5.	Kerala	8	24	0	4356.00	550
6.	Tamil Nadu	12	24	0	4408.00	980
7.	Andhra Pradesh	6	18	0	3267.00	970
8.	Orissa	5	15	0	2765.75	484
9.	West Bengal	6	18	0	3353.40	210
10.	Puducherry	1	3	0	544.50	96
11.	Lakshadweep	4	6	0	936.80	132
12.	Daman & Diu	1	4	0	668.35	21
13.	Andaman & Nicobar	0	10	0	2603.90	1962

Source: Various sources mainly Statement by the Minister of State for of Home Affairs, Shri Mullappally Ramachandran, in written reply to a question in the Rajya Sabha on 10 March 2010.

Note: Of the 194 boats (increased to 204 as per latest table above) to be procured by the Government, 84 are five-tonne vessels while the others

are 12-tonne. The state-of-the art patrolling boats can carry up to 10 people. The boat with dual jet engine costs about Rs 2.3 crore and comes with sophisticated GPS, a radar, a powerful search light and binoculars.

Table 3: Status of Physical progress of Coastal Security Scheme as on April 30, 2010.

State/UT	Sanctioned		Made	C	C	Construction
State/ U I						
	buildings		Operational	complete	in progress	not yet started
Gujarat	Coastal PS	10	10	10	-	-
	Check-posts	25	2	2	23	-
	Out-posts	46	9	19	24	3
Maharashtra	Coastal PS	12	12	-	2	10
	Check-posts	32	32	9	-	23
	Barracks	24	24	17	-	7
Goa		3	3	3	-	-
Karnataka		5	5	5	-	-
Kerala		8	1	1	5	2
Tamil Nadu	Coastal PS	12	12	12	-	-
	Check-posts	40	26	26	11	3
	Barracks	12	5	5	3	4
AP		6	6	6	-	-
Orissa		5	5	2	2	1
West Bengal	Coastal PS	6	6	-	3	3
	Barracks	6	Nil	-	3	3
Puducherry		1	1	-	-	1
Lakshadweep		4	4	1	2	1
Daman & Diu		1	1	1	-	-
A & N Islands		-	-	-	-	-
Total	Coastal PS	73	66	41	14	18
	Check-posts	97	60	37	34	26
	Out-posts	58	14	24	27	7
	Barracks	30	24	17	3	10

Source: MHA website at www.mha.nic.in/pdfs/mh_costal(E)

As part of the multi-pronged approach to coastal security, the Central Government also created a National Population Register (NPR) in 2009-10 for the 3,331 coastal villages in nine coastal States of Gujarat, Maharashtra, Goa, Karnataka, Kerala, Tamil Nadu, Andhra Pradesh, Orissa and West Bengal and four Union Territories (UTs) of Daman & Diu, Lakshadweep, Andaman & Nicobar Islands and Puducherry.

In addition to the above, the Government has initiated the creation of a list of coastal villages and plans to provide identity cards to all the residents of these villages who are 18 years of age and above. The field work of direct data collection is in progress and biographic details of more than 89 lakh persons and biometric details of more than 35 lakh have been collected. This will hopefully help in screening 'outsiders' and any associated suspicious activity in the area.

Coast Guard

In an attempt to enhance capability and capacity of the INCG, so as to double its fleet strength by 2012¹³ it has

been ascertained that 38 coastal Coast Guard stations will get "the cover of foolproof surveillance" by the end of 2010, while the rest will be covered in Phase-II.

An additional nine Coast Guard stations located at Karwar, Ratnagiri, Vadinar, Gopalpur, Minicoy, Androth, Karaikal, Hutbay and Nizampatnam are in the process of being built along with a new regional headquarters to oversee the coastline of Gujarat¹⁴.

Simultaneously, the petroleum ministry has also been asked to contribute to the effort of coastal security by procuring an unspecified number of Intermediate Supply Vessels (ISVs) for protection of India's offshore assets

Is a fool-proof coastal security system possible?

A brief glance at the measures initiated by the Government in enhancing the capacities of the Indian Navy, Indian Coast Guard and the various coastal states is fairly impressive. If these stated programmes and procurement deals were to fructify—in time—one can say that a satisfactory start has been made towards achieving a robust coastal security system. Unfortunately, there often exists a large fissure between 'intention' and 'materialization'" especially in the Indian context. Grandiose plans often fall on the wayside due to bureaucratic procedures and lethargy.

The sheer enormity of the coastline, the large population of people living along the coast, the number of small boats/dhows operating along the coastline and the area to be continuously patrolled often tend to overwhelm the capacity and efficiency of the concerned department. The primary vector, however, that remains the bane of all such well intentioned governmental efforts is the turf wars that exist between various departments which zealously guard their ambit and information. It is probably because of this mindset that the creation of a Maritime Security Advisory Board with a Maritime Security Advisor still remains on paper.

It is essential that such a Board with an overall maritime perspective be created to ensure that matters of maritime security get an impetus in the current scenario. In addition, governmental departments are loath to disseminating information and sharing of actionable intelligence between them. This exchange was very low prior to the Mumbai attacks. Efforts by various organizations in overcoming these hurdles have often proved unsuccessful in the past due to rivalries

between departments and conflict of personalities between people dealing with important issues.

Hence, advancements in the coastal security system necessitate a dire need for a change in mindsets and the adoption of a more cooperative approach by each Governmental department/Ministry involved. Detailed directives issued by the Central Government in this regard are proof of the resolve in this direction—but institutional mindsets are often inflexible and need time to change to the evolving scenario.

The other hurdle in the path of achieving a robust coastal security system lies in the difference of priorities as perceived by the Central and State Governments. While the Coastal Security Scheme is quite comprehensive in its approach and is regarded as high in priority for the Central Government, its implementation at the state level is often retarded. This is despite appropriate budgetary allocations and funding having been made available for its infrastructural set-up.

Coastal states and Union territories such as Maharashtra, Gujarat, Tamil Nadu and Andaman & Nicobar, which have witnessed tragic pitfalls of a porous coast, are currently in the forefront of implementing the scheme with zest in contrast to others (mainly from the eastern coast) who have been dragging their feet in this respect. This is an imbalance that needs immediate correction to obviate dangerous "security gaps" along the coastline. The expertise needed for carrying out policing duties at sea are unique in many respects and differ considerably from similar jobs on land. The lack of a large pool of trained manpower and the associated training of personnel employed for coastal security duties is another hurdle that needs to be overcome.

Despite the Navy's on-going initiatives, training is a continuous and a multi-stage process which has to be imparted to personnel not only for refresher purposes but at various stages of their career. It is suggested that training centres be opened in selected states which would provide the *ab-initio* training while the specialized training could be carried out in training establishments of the Navy. Overall, it can be deduced that despite the unlikelihood of a dramatic change in bureaucratic mindsets and lethargy, given the current determination of the Central Government, the coastal security system will come through but large security gaps would remain. These "gaps" along the coast would

be determined by the efforts of the respective states, availability of inventorial assets, reallocation of inventories over period of time into other ventures, the level of interaction with other agencies, will of the superiors and, lastly, efficiency of that particular outpost. It is these "gaps" that need to be filled.

Recommendations

It is obvious that the need of a robust coastal security system for India is not a luxury but a dire necessity that needs to be in place at the earliest possible time. Delays in institutionalizing such a security system exposes the country to Mumbai-type attacks with each passing day. To achieve a robust coastal security system, the following recommendations are being made—the initial two being generic in nature that deal with the systemic problems, while the others are specific.

Cooperation between Inter-Governmental Organizations in the region: Most governmental organizations are loath to share any actionable information with "outside" organizations. This xenophobic attitude is always cloaked under the excuse of "compromising security" and must be shed to overcome challenges and threats of transnational nature.

Indian organizations are excessively centralized in their decision making approach. Hence interaction with foreign organizations is normally done at a very senior level, implying that juniors are either incapable or aren't mature enough to communicate with specialist counterparts in foreign institutions. This needs to be overcome so that decentralization of communication processes to ensure near real time exchange of information at appropriate levels takes place.

Cooperation between Intra Governmental Organizations: The turf wars between various Governmental organizations are the bane of any initiative or project undertaken by the Government. It is well known that the impact of the Mumbai attacks could have been reduced had there been a greater degree of synergy between various organizations. It is also well known that there is considerable apathy against sharing of information between intelligence organizations. The level of sharing of actionable intelligence was abysmal till recently and was personality driven rather than institutionalized. In most cases the larger strategic interests are lost on the agencies that operate within their own realm. Efforts by the Government to overcome this problem have only resulted in creation of

more agencies and departments, ostensibly for cooperation and coordination.

The situation in the ministries or departments is no different. It is imperative that the Ministries of Shipping, Road Transport and Highways, Defence, Home and Agriculture coordinate efforts at all levels to ensure the smooth functioning of the coastal security system.

In this context, the Indian Navy has been designated as the nodal institution to look after coastal security. Consequently, four Joint operation centres (JOCs), to overcome the problem of resource utilization and information flow have been set up. However, this can only be successful if the various agencies and the supervising ministries come together for the common cause.

Cooperation between State and Central Governments: It is well known that priorities associated with Central Governmental initiatives/projects are often disregarded by state governments in consonance with the prevailing local politics. The earlier attempts at coastal security were unsuccessful due to a various reasons, including lack of financial sustenance and political will.

It is essential that current Central governmental directives and the political impetus towards implementing the coastal security apparatus is met with a better fate than the directives issued in the past.

Creation of Maritime Security Advisory Board (MSAB) and Maritime Security Advisor (MSA): Given the uniqueness of the maritime domain and the importance in ensuring a robust coastal security environment, the requirement of a specialized set-up dealing exclusively with maritime security issues in conjunction with the other agencies had been conceptualized and raised since long¹⁵. The Chief of such an agency could be designated as the MSA and as a three-star Admiral would be responsible for advising the Government on maritime security issues. The creation of such a body has long been on the agenda of the Cabinet Committee on Security but it has yet to materialize due petty politics. It is essential that such a body be set up at the earliest.

Specific Recommendations

• Introduction of Automatic Identification System (AIS) for smaller boats and ships at the very earliest as the first step is a must. As a corollary, aspects of Maritime Domain awareness (MDA) may be implemented along the coast as is being done in US by the US Coast Guard. This would require introduction of the latest technologies, sensors and other equipment for the security of the coast.

- Quick and fool-proof registration of boats. Registration of boats often takes long and is a tedious process leading to corruption and incorrect or uncorroborated data being incorporated. This lacunae must be overcome.
- Issue of identification cards to villagers living on the coast. This task has been undertaken by the Government which has created a National Population Register (NPR) for the 3,331 coastal

- villages in nine coastal States. This laborious task needs to be completed urgently.
- Closer liaison with locals coastal/villagers to act as eyes and ears of security agencies: The level of trust deficit between the villagers and the authorities must be reduced since without the help of the villagers it is extremely difficult to patrol the vast coast.
- Extensive patrolling by INCG and marine police in sensitive coastlines.
- Opening of a National Maritime Police training facility to be run by the Navy for training of marine personnel involved in coastal security duties from across the country.

ABOUT THE AUTHOR

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Ends Note:

1. The recent Home Ministry 2009-10 annual report confirms that the Indian government has a mandate for boats up to 20 meters in size to carry AIS Class B transponders. And, evaluations are underway for technologies to track boats smaller than 20 meters. The problem with the wide adoption of AIS transponders is likely going to be the cost, especially if fishermen are expected to pay for the devices. Other cheaper technologies exist for detection only. For both detection and ID simultaneously, technologies such as satellite-based tracking exist, but the further problem is the backhaul to a central server

The Home Ministry's report mentions satellite tracking, AIS/VHF and GPS/VHF tracking as possibilities, with the VHF being used for backhaul. If cheaper than AIS, GPS may be worked in tandem with other modes of 'backhaul' as wellFor longer range tracking the Long-Range Identification and Tracking System (LRIT) is used for ships trading outside the range of the coastal AIS. This system uses satellite communications for reporting positions.

- 2. See ISPS Circular: NT/ISPS/5/2009, NO: 44-NT(12)/2006-I dated 07.05.09 issued by DG Shipping
- 3. Marine News, "Coastal Security Group: Marine Police Stations in Tamil Nadu, 13 Apr 2009
- 4. Ibid
- 5. 12 of the Marine Police stations have already been created and an additional 30 are proposed to be created. See "30 more marine police stations to come up in State", The Hindu,(online edition) 29 Jul 2010
- 6. Ibic
- 7. "Coastal Security Group gets 12-tonne boat", The Hindu(online edition), 30 May 2009
- 8. Saurabh Joshi, "Coastal security: Navy's report card", at http://www.stratpost.com/coastal-security-navys-report-card, November 25, 2009
- 9. Ibid
- TNN Cabinet secretary to head panel on coastal security http://timesofindia.indiatimes.com/articleshow/4672927.cms?prtpage=1, Jun 19, 2009, 03.38am IST
- 11. As cited in Saurabh Joshi, n. 8
- 12. Ibid
- 13. J Dey, "Coast Guard to double fleet in 3 yrs", Mid day , 09 Nov 2009 available at http://www.mid-day.com/news/2009/nov/091109-26-11-Coast-Guard-Navy-mumbai-terror-attack.htm
- 14. "Navy: Sagar Prahari Bal to secure India's coastline" at Merinews available at http://www.merinews.com/article/navy-sagar-prahari-bal-to-secure-indias-coastline/15714400.shtml (the station in Karwar has been operationalised in Nov 2009)
- 15. "India likely to have an apex maritime security agency" Oct 23 2009, at http://timesofindia.indiatimes.com/india/India-likely-to-have-an-apex-maritime-security-agency/articleshow/5150092.cms also see "India to Finalise New Maritime Security Plan" at India Defence Online at http://indiadefenceonline.com/255/india-to-finalise-new-maritime-security-plan/



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