

Establishing a Maritime Domain Awareness Center in Sri Lanka

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Abstract— *In this paper researcher is interested to formulate a domestic Maritime Domain Awareness (MDA) Centre in Sri Lanka. MDA is situational awareness of the maritime environment. This could be achieved by gathering of real time maritime intelligence and surveillance. Sri Lanka is situated very close to but, away from Indian subcontinent. Therefore sea born non-traditional security issues have arisen in the North and North Western coastal belt of Sri Lanka. The concept of MDA is a broader area in maritime security and Sri Lanka has to develop her own mini MDA system which suit to the context. Hence this is the high time to take initiatives to establish a MDA center with information sharing strategy to counter maritime threats and challenges that affect to Sri Lanka. This center will be the core unit for maritime security coordination and it will collect, analysis and disseminate relevant maritime intelligence and data to conduct maritime operations*

It also depicts that the inadequacy of existing inter-agency maritime security coordination leads to increase transnational security threats. This issue highlights the significance of establishing a mini MDA center in Sri Lanka. The objective of this paper is to identify the national requirement of establishing a mini MDA center and to identify the requirement of inter-agency synergy to counter sea born non-traditional security threats and challenges. Researcher has selected qualitative research method to collect data from the secondary sources including scholarly articles, books, case studies, journals, etc. This mini MDA center could be a contemporary requirement of the country in order to counter existing maritime security issues. In addition, this will draw a common operational picture about the maritime domain which is relevant to maritime security.

Keywords-Intelligence, Surveillance, Synergy

I. INTRODUCTION

In this paper, researcher is attempting to determine the significance of establishing a Maritime Domain Awareness Center in Sri Lanka. This concept of MDA will enable to counter existing maritime threats and challenges which come to the island. The MDA is basically a situational awareness of the maritime domain. The existing security architecture is challenged by various transnational maritime security issues. It is essential to combine civil and military maritime security components to one core unit to exchange real time maritime intelligence and surveillance

data. This will create an interagency effort involving Sri Lanka Navy, Sri Lanka Coast Guard, Sri Lanka Air Force, Sri Lanka Customs, Department of Immigration and Emigration, Department of Fisheries and Aquatic Resources, Coastal Conservation and Resources Management Department, Narcotic Bureau and Port Authority to enhance the situational awareness of the maritime domain.

MDA is mainly focusing on merchant shipping which is engaged in maritime commerce. This MDA has not so far provided answers for non-traditional security issues such as drug trafficking, IUU (Illegal unreported and unregulated) fishing and human smuggling, because these are smaller boats and smaller boats are not detected by MDA concept in a wider way. Therefore, Sri Lanka has to design a mini MDA system which would suit the Sri Lankan maritime security environment by giving especial emphasis on countering existing maritime security issues in North and North western area. This centre could be the place to collect all the information, intelligence and surveillance data and analyse them for the operational commander to take decisions on a particular situation. This will enable to achieve quick, accurate and timely results in an operation with effective command & control and a quick decision making process.

Since Sri Lanka is situated in close proximity but, away from the Indian subcontinent, most of the non-traditional security issues are infiltrating to the country from North and North Western coastal belts of Sri Lanka. Therefore, Sri Lanka Navy has to take an initiative to establish a MDA Centre with an information sharing strategy to counter maritime threats and challenges that affects Sri Lanka. Further, Sri Lanka Navy should take an initiative to convince strategic level military decision makers to understand the real national requirement of this sort of system. The objective of this paper is to highlight the contemporary requirement of introducing a mini MDA Center to Sri Lanka.

II. METHODOLOGY AND EXPERIMENTAL DESIGN

This research is about social behaviour of maritime security components by understanding non-traditional security threats to Sri Lanka. Most of these issues are observed from North Western Sri Lanka during the preliminary investigation by the researcher. Therefore, researcher will concentrate more on the threats in North Western Sri Lanka and establishing of MDA centre to counter those issues. This broader area of social science need to prove with logical reasoning of theories based on laws of cause and effect. Researcher will be using qualitative methods to collect data. This will be collected

from the secondary source of books, articles, journals, website releases, dissertations, video and audio materials and published data of expertise in the field of maritime security. Writer expects to gather knowledge from officers and sailors experiences in the Navy in the field of maritime security and researcher's own observations. Further comparative analysis will be highlighted with Philippine MDA system and advantages of implementing such a system in the Sri Lankan context.

III. RESULTS

A. Concept of Maritime Domain Awareness

Maritime Domain Awareness is basically the effective understanding of anything which is associated with maritime domain which could affect security, safety and economy of a country (Department of the USA Navy, 2009, p.2). Situation awareness is a key factor for this concept and gathering information, intelligence and surveillance are main areas under MDA. Sri Lankan maritime security components (Navy, Coastal Guard and Air Force air surveillance) and civil maritime security components (Department of Fishery, Coastal Conservation Department, Port Authority, Custom, Immigration and Emigration Department etc.) are associated with maritime activities in the country. Therefore, Interoperability of these maritime security components will enhance maritime security of the country.

This concept could be used to cultivate a common operational picture to maritime stakeholders. By establishing a mini MDA centre, civil and military maritime security components could work together. Then the operational commander will have a common operational picture of maritime domain to interdict adversaries.

B. Maritime security threats and challenges

Sri Lankan maritime security threats and challenges are mostly appearing as non-traditional security issues. Maritime terrorism was a huge issue that encompassed our country for decades. Among the few terrorist organizations which have acquired maritime capabilities, the Liberation Tigers of Tamil Eelam (LTTE) stood as the most formidable group and they have smuggled a vast arsenal of formidable weaponry into Sri Lanka through the sea (Gunawardena, 2015) Therefore, this article identified as maritime terrorism was one of the key threats to Sri Lanka and most of the other illegal activities were the outcome of maritime terrorism. Therefore, it will be a notable challenge for maritime security components to identify these threats before infiltrating into the island.

Drug trafficking is another notable threat to Sri Lanka. It is a vast danger for the smooth functioning of social-cultural stability of the country. When narcotic infiltrates the land it paves the way for the other crimes to thrive within the country. The notable incidents of arresting narcotic items are there, but unnoticed drug smuggling activities still exist. These issues of drug smuggling are not limited to national waters of Sri Lanka. It is a highly discussed matter

in the security debates in all the forums and international symposiums. "Sri Lanka continues to be utilized as a transit point for drug smuggling from the 'Golden Triangle' and the 'Golden Crescent'. Heroin is routed via Sri Lanka from Pakistan or India on a big scale by sea by containers and mechanized fishing craft" (Wijegunaratne, 2012). Therefore, responsibility lies with civil and military maritime security components to counter these threats. Similarly Human smuggling had been taking place in Sri Lanka for a considerable period of time. However, at present this has been reduced by the effective combine operations conducted with countries within the region.

IUU fishing has caused a great impact to Sri Lankan maritime security. Most of the contraband activities are connected with IUU fishing. The Indian fishermen transgress the demarcated boundary line between the two states on a regular basis disregarding the IMBL into the Sri Lankan waters for poaching and claim that the Sri Lankan fishermen also do the same. Illegal Indian fishing trawlers and their fishermen crossing over to the Sri Lankan territorial waters has serious security implications to Sri Lanka. It certainly can have national security implications to both the countries as the possibility of a terrorist organization exploiting this conflict to carry out infiltrations and terrorist attacks is very high. However, lack of real time information sharing mechanism between the two nations has been observed. Therefore, the proposed MDA Centre could be capable of exchanging information and intelligence across borders and sectors to overcome this issue.

Non-traditional issue of transportation radioactive materials in legal as well as illegal methods has become a challenge to Sri Lanka. Nuclear rivalry between the Asian countries in the region may have made various attempts of transferring radioactive materials for their nuclear proliferation as well as nuclear energy process. Identification of these materials during transportation will be a future challenge for maritime security components in the country. Indian River Keeper Organizations describes that "Every exposure to radiation increases the risk of damage to tissues, cells, DNA and other vital molecules. Each exposure potentially can cause programmed cell death, genetic mutations, cancers, leukemia, birth defects, and reproductive, immune and endocrine system disorders (Reverkeeper, 2016). It means the radioactive material has become a threat to our maritime living and none living resources as well as to human life. This could be another future challenge for Sri Lankan border security.

C. Maritime Intelligence and Surveillance

Sri Lanka navy is the main security component, which provides maritime security to the country. It is a fact that most of the non-traditional security issues could not be identified at the correct time. Furthermore, there are occasions when identification becomes more difficult with the existing maritime surveillance system. Some of the occasions observed in existing maritime intelligence and

surveillance capabilities and application of maritime domain concepts are insufficient to identify the issues at the precise time.

Sri Lankan fleets assets are the prime and foremost defence layer around the country which is operating in the Territorial Waters, Contiguous Zone, Exclusive Economic Zone and High Seas. These platforms provide intelligence and surveillance data to conduct maritime operations.

Under the Air Surveillance, Sri Lankan Air Force consists of Beach Crafts and Unmanned Aerial Vehicles (UAV's) for air reconnaissance. (Exact numbers are not mentioned) (Airforce, 2016) The existing maritime intelligence and surveillance capabilities are rarely available in open sources. If summarized naval sea platforms (Ships and Craft) are the main intelligence gathering methods. Other than that coastal Radar, Sonar, GPS, AIS, VMS, human intelligence, communication intelligence and electronic intelligences methods are used to collect data. Satellite technology is rarely used to gather maritime data, since it is highly expensive.

D Cooperative security mechanism

This will concentrate more on intrastate relationship and cooperative security mechanism of military to military and military to civil security components. The Co-operative Security was developed and deeply practiced after the 9/11 attack to the USA. It was one of the major turning points in the world where the entire gamut of security was changed. Cooperative security is defined as states working together to deal with non-state threats" (Mihalka, 2005, p.113). This article further highlighted that, with the rise of globalization, cooperative security is a peak requirement to counter transnational security issues in the world.

When it is considered in the Sri Lankan context, transnational maritime security threats and challengers are infiltrating the country. These threats and challenges cannot be countered by being on our own. In view of the broader nature of these security issues, countering mechanism should be a combined effort. Therefore, domestic co-operative security mechanism is of vital importance to the national requirement today. This can be achieved by the combination of civil and military maritime security components. When countering maritime threats to the country such as human smuggling, drug trafficking, gun running, there are numbers of maritime stakeholders who are engaged in these operations; such as Navy, Coast Guard, Narcotic bureau, Custom, Department of Fisheries and Immigration and Emigration. Since the threats are common to the entire stakeholders countering mechanism must be a combined one to make it more successful.

When the Philippine Coastal Watch System (CWS), is considered it is the inter agency effort of countering non-traditional security threats to the country that helps its smooth running. "The key functions of the initiative are to

develop a common operating picture of the maritime domain in the Philippines, to collect, consolidate, and integrate all data relevant to maritime security and to provide real-time information for the purposes of cueing, locating, interdicting, apprehending, and prosecuting those who engage in illegal maritime activities" (Rabasa & Chalk, 2012, p.21). The whole system is co-ordinated by Maritime Research Information Center situated in Manila. This system is supported by Australia and USA. Philippine long-term aim is to link the CWS with similar initiatives in Malaysia and Indonesia to create a sub-regional regime of MDA. Therefore, it is a timely requirement of Sri Lanka Navy to take an initiative to establish a MDA center to establish inter agency support to counter non-traditional security threats to the country.

Information and surveillance data gathering from various sources of maritime affiliates need to centre in to a mini 'Maritime Domain Awareness Centre'.

- The gathered information is required to analyse via staff officers of different security components. (Working Staff of the centre need to represent each security component such as Navy, Army, Air force, Coast guard, Custom, Immigration and Emigration, Department of fisheries etc.)
- The staff officers are required to share the information and data among security affiliates and take decisions quickly and with precision, which would enable to have a common operational picture.
- Processed intelligence must be prioritized according to threat axis to the country and disseminate in to the relevant authority. According to the intelligence reports naval and commercial operations can be implemented. (To establish Sea Power around island) Further gathered intelligence is required to forward to strategic level decision
- Strategies adopted in combination of operational level decision making is essential.(Discussion of lapses in coastal security arrangement architecture such as modern surveillance equipment's , Maritime Patrol Air Craft (MPAC), Offshore Patrol Vessels) OPV, Fishing boats-commercial operations, etc).
- Following structure is of a mini MDA centre which has been identified and recommended to implement in the future.

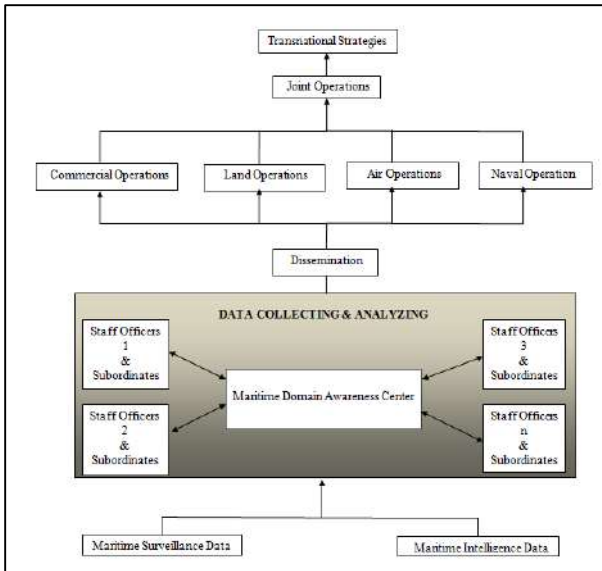


Figure 1: Maritime Domain Awareness Center (Developed by the author)

According to figure 1, maritime intelligence and surveillance data collected from different sources are gathered in to mini MDA centre. Maritime Shareholders will be analyse the data and disseminate in to relevant civil and military security agencies to conduct their operation. This may be a single or joint operation. The collective effort of this centre could find transnational counter strategies to transnational threats and challenges

IV. CONCLUSION

The comprehensive understanding of Maritime Domain Awareness and Co-operative Security are very important in the field of maritime warfare. The conceptual understanding of these theories is the key success for the practical usage of maritime operations. The identification of possible traditional and non-traditional security issues to Sri Lanka at a precise time is of vital importance to create policies by the strategic level decision makers. Naval warfare is an art and deep study of military strategies by practitioners is one of the important factors for the maritime security to the country. Military and civil maritime capabilities of Sri Lankan maritime security components are the outer most layer of defence which will provide security by safe guarding maritime environment. Effective collaboration among maritime affiliates is essential to progress with this momentum.

The existing maritime security structure in Sri Lanka lacks the proper mechanism for intelligence and surveillance sharing location. The significance of naval contribution to strengthen the maritime security of Sri Lanka clearly needs to be identified by the maritime stakeholders. The objective of this paper is to emphasize the necessity of formulating a mini 'Maritime Domain Awareness Centre'.

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ABBREVIATIONS

Coastal Watch System - CWS
 Illegal Unreported and Unregulated fishing – IUU fishing
 Liberation Tigers of Tamil Eelam - LTTE
 Maritime Domain Awareness – MDA
 Maritime Patrol Air Craft – MPAC
 Offshore Patrol Vessels - OPV
 Unmanned Arial Vehicle – UAV

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BIOGRAPHY OF AUTHOR



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