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RIDING ON BIG WAVES: RESOURCE CONSTRAINTS, ORGANIZATIONAL CHALLENGES AND BANGLADESH COAST GUARD

Abstract

Even after a quarter century, Bangladesh Coast Guard (BCG) lacks mission-critical resources such as land, infrastructure, force-specific platforms, logistics and repair and maintenance facilities. Its desperate efforts to acquire land and infrastructure began soon after its emergence and continues till today. The force, being a specialized one, needs mission-specific platforms and equipment but is yet to acquire those. Besides, deficiency in logistics and repair and maintenance facility hinders its operational scope to a great extent. Its logistics chain is feeble, whereas its repair and maintenance capability—both in-house and outsourced, are still in the primary stage of development. Hence, these critical deficits need to be covered up as soon as possible by BCG to fulfil its mandate. In this regard, the experiences of other coast guards across the globe offer useful insights. Moreover, the recruitment of own manpower presents itself as the panacea while charting a well-coordinated long-term development plan and executing it in phases offer the best possible option to overcome these deficiencies.

Keywords: Bangladesh Coast Guard (BCG), Logistics, Infrastructure and Resources, Pollution Response

1. Introduction

Bangladesh Coast Guard (BCG) came into existence in 1995 as the youngest law enforcement agency. Like Indian Coast Guard (ICG), BCG was established due to degradation of maritime law and order situation as well as proliferation of maritime crimes. With only two ships and two boats taken on loan from Bangladesh Navy (BN), BCG started its journey.¹ Within a few years, the pressure and expectation from all maritime stakeholders to deliver and perform its duty properly were rising. As a result, it had to establish its foothold first. The force started looking for places to establish makeshift bases to start conducting operations. Being desperate to do so,

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¹ Bangladesh Coast Guard Headquarters, *Coast Guard Vision Document 2041*, Dhaka: Coast Guard Headquarters, 2019, p. 3.

it had begun to acquiring those lands and buildings on rent which other organizations abandoned due to shift in their operational priority. Thus, the force progressed with whatever it was offered and started its constant persuasion to secure the bare minimum. Interestingly, after passing one-fourth of a century, the struggle is still going on.

Recent statistics reveal that BCG has been making great strides with regards to its performance.² With barely three-thousand manpower, the force has seized almost 17 per cent of the total catch of yaba³ of the country. In fishery protection, the force has achieved the National Fishery Award (Gold) in 2018.⁴ Due to the efforts of this force along with other forces, the yield of Hilsa⁵ has risen from 3.5 lac metric tons in 2014 to 5.17 lac metric tons recently. Besides, the size of Hilsa has increased by 350 grams on average. Bangladesh has secured the third position in the world in the production of open water fishery.⁶ In contrast to the operational performance, the force's progress regarding land, infrastructure, resources and facilities is far outmatched. At present, the force has six bases, 37 stations and 17 outposts as per its Table of Organization and Equipment (TO&E). Of the four bases and four stations, three are still under construction. After fourteen years of its inception, it had established its headquarters building in 2009. The state of infrastructures of the force in the remote field locations beggar description. The paucity of infrastructures originates from the shortage of land resources as from the inception, BCG had to put up vigorous endeavour for acquisition of land to establish its bases, stations, outposts and arrange minimum berthing facilities for its ships and boats. It is still struggling for bare minimum land for its foothold. The shortage of land and consequent lack of infrastructure have been acting as a serious stumbling block for the progress of the force.

BCG is a specialized agency. Coast Guard Act 2016 has entrusted the force with a few specialized tasks. Some of them are Search and Rescue (SAR) at sea, salvage in sea areas, marine pollution response, protection of marine biodiversity and so on. These tasks are unique in nature and necessitate specialized and mission-specific resources. For example, undertaking an effective SAR operation in the Bay of Bengal (BoB) necessitates all-weather capable ships with drone and organic

² Ibid.

³ Yaba is a drug which is made of chemicals such as caffeine and methamphetamine; generally produced in Myanmar and widely distributed over Bangladesh, Thailand, Malaysia, Singapore and even to Australia. Due to its psychotropic effects, it has become popular among the young generation. The government has declared 'zero tolerance' against this drug.

⁴ "Bangladesh Coast Guard receives National Fish Award", *Dhaka Tribune*, 31 July 2018.

⁵ Hilsa is the national fish of Bangladesh, scientifically known as *Tenulosa ilisha*. Approximately, 85 per cent of the world's total yield of Hilsa grows in Bangladesh.

⁶ "Hilsa Bumper Yield this Year", *Prothom Alo*, 23 June 2019.

helicopters on board.⁷ BCG is yet to acquire these highly specialized resources. International Maritime Organization (IMO) has allotted SAR area of 172,627 square kilometres (km) in the Bay to the country.⁸ BCG is responsible for carrying out maritime SAR in the BoB. But inadequate specialized resources impede the force to undertake this nationally important task professionally and effectively. Needless to say, it is high time that BCG had concentrated its focus on finding ways and means to accomplish them.

However, one of the major setbacks of BCG is the unavailability of maintenance and logistics facility. These two things are the lifeline of any equipment-oriented service. Ships, boats, hovercraft, aircraft, seaplane—all need fuel and spares to run and repair works to keep them moving. And the men behind these machines need food, cloth, shelter, medicine and many other things to go on serving. The sophisticated equipment that BCG uses, need ‘fixing’ in regular intervals as well as when emergent. In warfare parlance, victory depends ninety per cent on the logistical support. It is no less important in case of law enforcement operations. However, the force does not need to own all the logistics, repair and maintenance facilities, neither is that practicable. It is ideal for an equipment-intensive service like BCG to have reliable and predictable sourcing of all material and works while building mission-critical services domestically. BCG is yet to build critical logistics and maintenance facilities, thereby, it is yet to reach its full operational potential.

The paucity of the above-mentioned resources is creating multifarious problems for BCG. Against this backdrop, the paper endeavours to find out what is the force’s present state of shortage of land, infrastructure, force-specific resources, maintenance and logistics facilities; to what extent are these affecting the conduct of the force’s operations and what steps can be taken to address these issues? For the convenience of the discussion, the paper is divided into eight major sections including introduction and conclusion. The second section gives an overview of the BCG through reviewing the existing literature. The third section elaborates the methodology of the paper. The fourth, fifth and sixth sections examine the state of the aforesaid resources, e.g., land and infrastructure, state of force-specific resources and maintenance and logistics infrastructure respectively and compare the state of these resources with the actual requirement of the force. The seventh section analyzes the current resource’s state of other coast guards across the globe. It also provides some viable solutions to the deficiency of critical resources of BCG in light with the other coast guards. The eighth section concludes the paper.

⁷ Bangladesh National Parliament, *Coast Guard Act 2016*, Dhaka: Bangladesh Government Press, 2016.

⁸ *Ibid.*, p. 11.

2. Bangladesh Coast Guard (BCG): An Overview

Bangladesh Coast Guard was established on 14 February 1995. Its genesis was initiated by the then opposition party in the parliament, Bangladesh Awami League, which moved the Coast Guard Act 1994 in the parliament. The act was passed as the only act moved by any opposition party in the parliamentary history of the country.⁹ It is placed under the Ministry of Home Affairs (MoHA) along with Bangladesh Police, Border Guard Bangladesh (BGB), Rapid Action Battalion (RAB), Bangladesh Ansar and Village Defence Party (VDP) and few other departments. It is a maritime force which operates at sea and in a few riverine areas of the country. Indeed, it is the only maritime force under MoHA. Headquartered in Dhaka, the force maintains four bases, 37 stations and 17 outposts in the coastal areas. Except about 200 civilian employees, the entire uniformed manpower of the force is provided by Bangladesh Navy which counts to almost 2,938.¹⁰ As per the mandate, the force engages itself in keeping law and order, ensuring the security of seaports, anti-piracy, anti-smuggling, anti-narcotics, fishery protection, prevention of human trafficking, disaster relief and similar operations.¹¹ Though tiny in strength, the force has excelled in achieving its goals and objectives and received accolades such as National Standard in 2014 and National Fishery Award (Gold) in 2018.

The available literature does not specifically deal with Bangladesh Coast Guard and its practical operational level problems. To bring jointmanship among the forces, Armed Forces Division (AFD) has published a draft 'Joint Warfare Doctrine'. The doctrine in great detail describes the joint operational aspects of AFD.¹² It deals with pure military subjects like the operational art in joint environment and Command, Control and Communication (C3) aspects. It provides a broad direction to BCG about how it can fit into the joint operations. But the practical issues like land, infrastructure, resources, logistics and maintenance of BCG are not mentioned in the doctrine. The recently published 'Defence Policy of Bangladesh' specifically mentions the wartime roles of BCG¹³ Moreover, 'The Maritime Doctrine of Bangladesh'¹⁴ and 'BN Forces Goal-2030'¹⁵ identify BCG's role during wartime along with its preparations to that end. The essence of these documents helps to provide an overview of the future needs and plans of BCG.

⁹ Speech of Honourable Prime Minister in *the inauguration of 14th Heads of Asian Coast Guard Meeting* in Hotel Radisson Blu, Dhaka, 24 October 2018.

¹⁰ Interview with Director, Plans and Acquisitions, Coast Guard Headquarters on 23 January 2020.

¹¹ "Regional Maritime Security", available at <http://centreforforeignpolicystudies.dal.ca/pdf/RMS4.pdf>, accessed on 10 May 2014.

¹² Armed Forces Division, *Joint Warfare Doctrine*, Dhaka: Armed Forces Division, 2010.

¹³ Armed Forces Division, *Defence Policy of Bangladesh*, Dhaka: Armed Forces Division, 2018.

¹⁴ Bangladesh Navy, *Maritime Doctrine of Bangladesh*, Dhaka: Naval Headquarters, 2010.

¹⁵ Bangladesh Navy, *Forces Goal 2030*, Dhaka: Naval Headquarters, 2010.

While discussing on BCG, the questions of the genesis, development and current practices of the contemporary coast guards across the globe automatically came to light. In this regard, the ICG Headquarters' publication *History of Indian Coast Guard* gives an account of the genesis of the formation of ICG.¹⁶ A fair idea of how ICG has grown over time can be obtained from the book. Besides, there is a parliamentary committee report on ICG which suggests an increase in budget and provides few other recommendations.¹⁷ On the other hand, Tom Beard, in his definitive and illustrated book *The Coast Guard* provides the history of the United States Coast Guard's (USCG) origin and its current activities.¹⁸ From this book, the paper draws few analogies and examples including those related to manpower issues.

The USCG Headquarters published the US Coast Guard Logistics Hand Book¹⁹ intending to provide an overview of the logistics support to USCG assets. The book describes the evolution of the force's logistics systems over centuries. It also gives an overview of the current system. An in-depth study of the current system reveals that the USCG logistics system is continuously undergoing trial and error as well as innovation. Most notably, it has included the provision of human resources and information in the logistics system and emphasized on the interrelationship among the offices in providing logistics support efficiently.

After 23 years of journey, BCG has published and adopted 'Coast Guard Vision Document' in January 2019. The document has laid down the force's plans up to 2041. It also elaborates the current problems, lacunas being faced by the force and pressures from different corners on the force to build its capacities and perform the duties entrusted with the force.²⁰ Besides, it deals with the shortage of land, infrastructure, force-specific resources, logistics and maintenance facilities. The current research has benefited from the deliberations made in the document and the plans laid down in it. However, the document, quite logically, does not deal with each of the problems in detail.

The literature above does not highlight BCG's predicament due to shortage of land, infrastructure, force-specific resources, logistics and maintenance facilities. Since no in-depth study has so far been conducted about the force, these issues could not come to the surface so long prominently. Hence, it is evident that there is a

¹⁶ Indian Coast Guard Headquarters, *History of Indian Coast Guard*, New Delhi: Indian Coast Guard, 2010.

¹⁷ Thirteenth Report of Standing Committee on Defence, *Performance of Coast Guard Organization*, New Delhi: Lok Sabha Secretariat, 2011.

¹⁸ Tom Beard, *The Coast Guard*, Washington D.C: Hugh Lauter Levin Associates, 2010.

¹⁹ The US Coast Guard, *US Coast Guard Logistics Handbook*, Washington D.C: US Coast Guard Headquarters, 2016.

²⁰ Bangladesh Coast Guard Headquarters, op. cit.

significant gap in the research. This paper, therefore, tries to shed light on the matter, discuss pros and cons, examine different aspects of the issue and suggest solutions of these endemic problems towards the benefit of the force.

3. Methodology

Structured and organized research on this specific issue is not available. Most of the available literature concentrates on maritime security in general and does not specifically cover the role of BCG and its organizational problems. However, the author's experience of serving two terms in BCG coupled with his long service in Bangladesh Navy and career-long practice of maritime security issues has given him ample opportunity to carry out in-depth analysis on the subject through interacting with the maritime professionals from across the globe. This experience has been validated by extensive literature review and backed by questionnaire survey which is still going on. In essence, this paper is based on primary research augmented by secondary research. It also examines books, periodicals, journals, online material from authenticated sources. Besides, an extensive study on other coast guards has also been carried out, drawing inferences for BCG. Furthermore, focused group discussions with the heads of other coast guards has also undertaken. These, altogether have enabled the author to carry out an in-depth study on the subject.

4. BCG's Needs of Land and Infrastructure

BCG started its journey in a compound provided by BN in Naval Headquarters in 1995. Later, it shifted its office to a rented building at Baridhara Defence Officers' Housing Society (DOHS) in Dhaka. The force then started looking for suitable lands in the coastal areas to establish its zonal headquarters. During that period the country's population soared to 115.17 million from the post-liberation war time²¹ and the country was witnessing a shift from the agro-based economy to industrial economy. Newly established industries were having tremendous demand for cheap lands which were connected to motorways. Besides, the country was going through a silent cultural change—joint families were being replaced by small nucleus families. These together created an extraordinary demand on the already scarce land area of the country. In this backdrop, BCG's search for land could only make headway at snail's pace. The government's strict acquisition rules imposed an extra burden on the force's small manpower to complete all the formalities for land acquisitions. Along with these, the pressure to perform efficiently increased, so did the need to acquire land and infrastructure. Hence, the land problem is unique for BCG as other

²¹ The World Bank, "Bangladesh", available at <https://data.worldbank.org/country/bangladesh>, accessed on 04 November 2019.

forces individually own around 5500 acres of land each, dwarfing BCG's meagre 330 acres in total.²²

4.1 State of Land and Infrastructure

The force succeeded to set up its East Zone Headquarters in a building rented from Marine Fisheries Academy in Chattogram. Similarly, Mongla Port Authority gave BCG some land and a building where BCG established its West Zone Headquarters. After lots of efforts, in 2009, it finally succeeded in establishing its Headquarters building. Until now, BCG has constructed infrastructures in four bases (among six) and only one station (among 37). Currently, BCG is building infrastructure in three other stations and constructing its own dockyard. It is undertaking a project for building modest infrastructure in eight stations and outposts where the acquisition of land has been completed. Besides, the force has planned to build required establishments in the other 41 locations by 2030.

4.2 Problems Faced Due to Deficient Infrastructure

BCG operates from remote places where infrastructure is very rare and only makeshift buildings are available. Hence, operating from these buildings and infrastructures creates difficulties for the force. The following sub-sections elaborate two problems faced by the BCG due to the deficient infrastructure.

4.2.1 Security Problem

Operating from makeshift rented buildings creates security problem. Ideally, BCG's bases, stations and outposts should be mini-cantonments where the activities must be kept outside the watch and access of general people. Indeed, the premises where temporary operating places, e.g., stations and outposts have been established are open to be watched and accessed by everyone. Besides, the members of the force deal with firearms, ammunition and explosives which are inherently dangerous for the public. But from the current stations and outposts, BCG members' activities can easily be monitored and tracked down by anyone. A terrorist or an illegal fisherman can easily watch when the BCG's patrol team is preparing for patrol or when they are going out for reconnaissance or when an informer is entering the area. Accordingly, they are able to make adjustments to their plans. Furthermore, operationally sensitive places like armoury (where the firearms are stowed), magazine (where the ammunitions are stowed), communication centre and vaults for keeping official

²² Based on the Author's service experience as Director General, Coast Guard, 2016-2019.

documents can be traced and activities therein can be monitored. Consequently, in these operationally sensitive areas serious risks of robbery, theft, sabotage or similar offences exist. In light of these existing risks BCG is in the process of building proper infrastructure in all the remote locations.

4.2.2 *Psychological Impact*

BCG stations and outposts are generally located in remote areas, far from the amenities of city life. In those locations, facilities, even some basic ones are generally not available. In absence of own infrastructure, BCG is forced to hire or temporarily occupy other organization's buildings and facilities, with limited amenities. Living in those buildings under tight logistics condition becomes very hard for BCG personnel for a long time. Being soldiers, BCG personnel are trained to live in harsh conditions but for a limited period of time and for a definite purpose. Even, many of BCG's stations and outposts are located in the remotest areas of the country, not connected with the national road networks and only reachable through the river route. As a result, BCG has to provide necessary logistics including potable water by its watercraft which is affected by inclement weather many times. In order to overcome all these difficulties, it has planned to build its own infrastructure in the remotest locations. It is hoped that after the establishment of those infrastructures as planned by BCG the problem will be gradually reduced.

5. **State of Force-Specific Resources**

Coast Guard Act 2016 has entrusted BCG with a number of specialized tasks in its area of jurisdiction which are mainly:

- a. Search and Rescue.
- b. Salvage.
- c. Marine pollution response.
- d. Protection of biodiversity and endangered species.²³

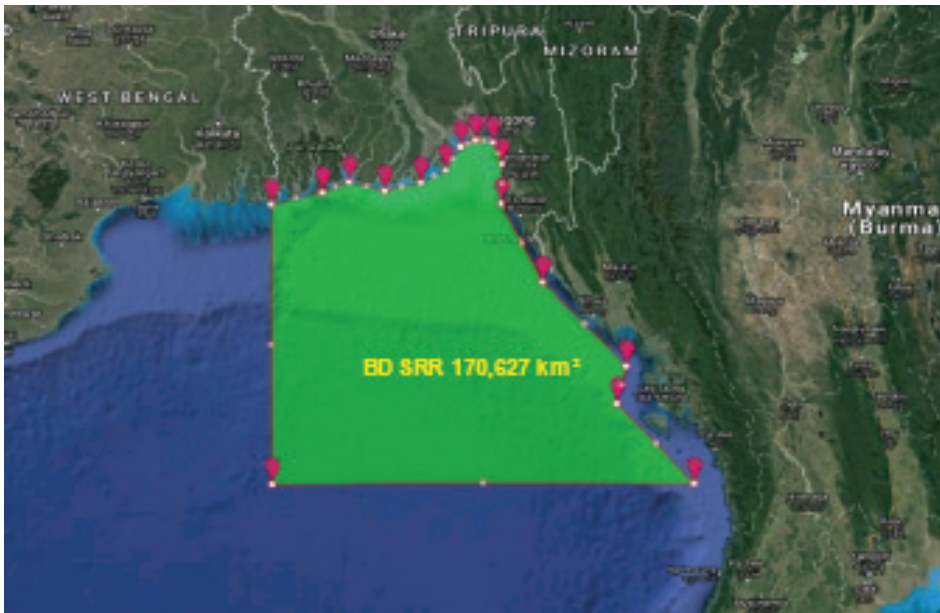
The magnitude of the tasks is huge but the current resources of the force are bare minimum to operate and perform these specialized tasks. Hence, BCG needs specialized resources which are either absent or deficient. A discussion of the area of jurisdiction of BCG reveals the extent of its specialized tasks.

²³ Bangladesh National Parliament, op. cit.

5.1 Areas of Jurisdiction

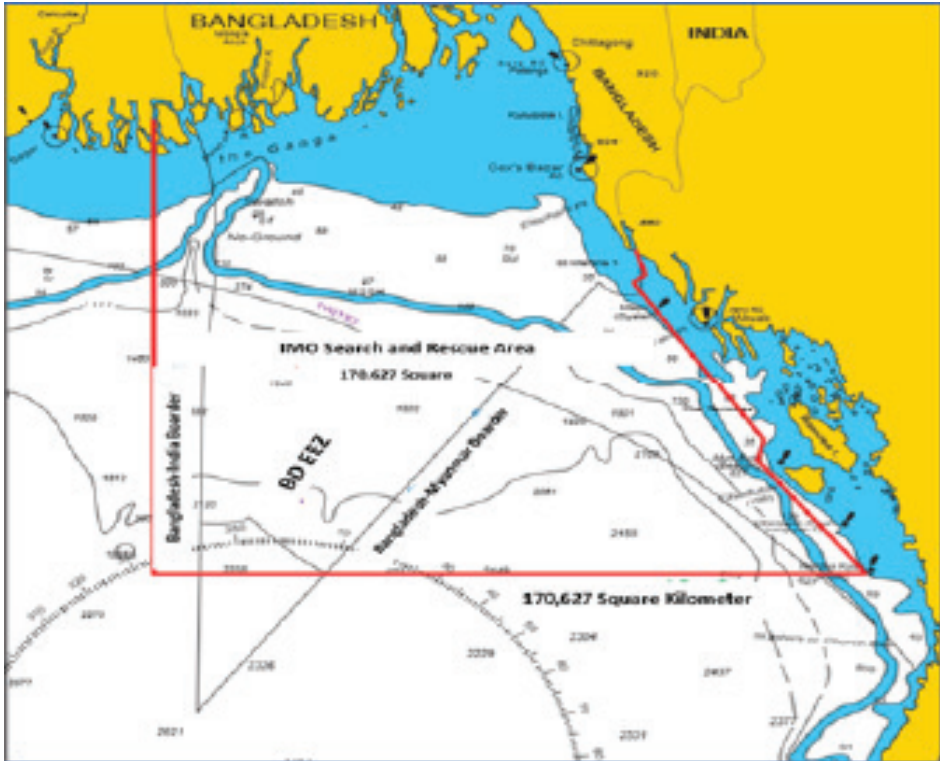
Though the current size and strength of BCG is small, its areas of jurisdiction (AOJ) dwarfs the size of areas of jurisdiction of other law enforcing agencies put together. The Coast Guard Act 2016 has put the entire Territorial Waters, Contiguous Zone, Exclusive Economic Zone (EEZ) and Continental Shelf (CS) within the AOJ of the force. Bangladesh's sea area up to the EEZ is 118,813 square km. The continental shelf issue is yet to be resolved. Once resolved, it will naturally add up to the existing areas. On the other hand, IMO has designated SRR area for all the maritime nations of the world. Bangladesh has been given an area bounded by 90° longitude line and 80° latitude line, extending up to Myanmar coast. The size of the area is 170,627 square km including most of the EEZ. The size of the area is 1.18 times larger than the total land area of the country. Map 1 and 2 show the SAR areas of Bangladesh.

Map 1: Bangladesh's Search and Rescue Area



Source: Created by Author based on IMO SRR Map, available at www.imo.org, accessed on 31 March 2020.

Map 2: Bangladesh’s Search and Rescue Area and EEZ together



Source: Created by Author based on IMO SRR Map, available at www.imo.org, accessed on 31 March 2020.

5.2 Analysis of Tasks and Resource Requirements

5.2.1 Search and Rescue

Bangladesh’s international trade is mostly handled and rotated by sea. The coastal population of the country depend on fishing. Approximately, a hundred thousand fishing trawlers ply at sea for fishing. Due to the increased focus on ‘Blue Economy’ of the present government, sea-related activities are likely to see a significant rise in the future. But seafaring is a challenging profession, there is significant risk involved, which may even lead to loss of life. Vessels plying at sea may face machinery breakdown, fire on board, damage and flooding, storm and inclement weather, rough sea, collision, man overboard, attack by pirates or robbers, criminal acts by other vessels and face many other perils. Once a vessel in Bangladesh waters faces danger, over the radio, it calls for help as per internationally accepted procedure. As BCG is responsible for maritime SAR, it responds to the

call, searches for the vessel, locates its position in the vast sea area, rescues the lives and provides fire-fighting assistance. Moreover, if the vessel encountered flooding due to damage, it gives de-flooding assistance and salvages the properties on board. The task becomes much more difficult if the vessel has been subjected to attack by robbers or pirates. In such case, BCG has to neutralize the pirates by force and save the lives and properties. All these become much more difficult if, unfortunately, the weather is adverse. In order to undertake these whole ranges of tasks, BCG needs potent platforms which can traverse the whole sea area despite adverse weather with an acceptable swiftness. But a ship, as a displacement vehicle,²⁴ is limited in speed. Thus, to locate and physically assess the conditions of affected vessels, aircraft or drones are needed. Apart from this, the ships must have adequate and appropriate equipment to render fire-fighting assistance, or de-flooding assistance or adequate force (probably a commando force) to neutralize a terrorist group on board and also tow the vessel to safety at the end. Hence, these special capabilities must be added to special type and purpose-built Coast Guard vessels.

BCG's operating area is another factor which needs additional attention for developing the SAR capabilities. BoB remains rough during most of the year, specially from March to October.²⁵ Coast Guard ships or naval ships of low displacements²⁶ cannot ply safely at sea—due to high waves. As a result, ships roll heavily and face the danger of being capsized. This necessitates bigger ships. Ships of 3500 tons or more are able to withstand rough seas and inclement weathers throughout the year. In order to perform BCG tasks effectively covering the entire AOJ, the need of vessels of 3500 tons or above is, therefore, a must.

5.2.2 *Salvage*

Salvage is a task which comes as a corollary to SAR operations. Salvage of sunken or disabled vessels within the land territory of Bangladesh is the responsibility of Bangladesh Inland Water Transport Authority (BIWTA) as per Bangladesh Inland Shipping Ordinance.²⁷ Outside the land territory, BCG is responsible to salvage the vessels in the waterbody under the AOJ of it. However, salvage of a sunken or half-sunken vessel is a specialized task, involving specialized manpower and equipment. It includes high capacity de-flooding pumps, underwater welding and

²⁴ A vehicle which floats and displaces water is termed as displacement vehicle in maritime parlance, as opposite to air-cushion vehicles.

²⁵ Based on the Author's 39-year-long service experience in Bangladesh Navy and Coast Guard.

²⁶ Displacement is a term used to describe the weight of a ship by measure of the water. It displaces when floating; it works according to Archimedes' law; bigger ships have more weight and consequently higher displacement.

²⁷ Bangladesh Coast Guard Headquarters, op. cit., p. 51.

cutting machines, underwater explosives, floating cranes of huge capacity which can withstand rough seas and special type of equipment such as SONAR²⁸ among others. These assets are very costly and require specially trained personnel to be operated effectively. At present, BCG does not have a salvage vessel in its inventory.

5.2.3 *Marine Pollution Response*

In its AOJ, BCG is responsible to address marine pollutions. The extent and menace of marine pollution are talked of topic in the contemporary world. It is often said that the world will soon see more polythene than fish in the oceans. To some extent, the oils spillage in Shyala river in Sunderbans area in 2014 has sensitized the nation and the government on the menace of marine pollution. Consequently, the government designated the Department of Environment (DoE) to create National Oil Spill and Chemical Contingency Plan (NOS COP). BCG is an important agency in this plan. Apart from the oil spillage, a huge quantity of pollutants is discharged in the environment mostly in the rivers by the industries and households every day. A large portion of the pollutants is washed away in the BoB by the main rivers of the country, principally, the Meghna. Along with this regular pollution, the seaport and river port areas are polluted by marine traffic. Besides, the ship-breaking industry in Bhatary is one of the significant sources of marine pollution. To counter the menace, at present BCG has four Offshore Patrol Vessels (OPV) procured from Italy which have limited pollution response equipment on board. Furthermore, BCG has signed a contract with Japan International Cooperation Agency (JICA) to provide BCG four boats with pollution response equipment on board. Moreover, BCG is trying to procure portable equipment which can be stowed in a base but deployed on board a vessel in case of pollution. Together with its planned dedicated Pollution Control Ship, BCG will be capable of dealing with pollution incidents in its AOJ.

5.2.4 *Protection of Bio-diversity and Endangered Species*

One of the specialized and most unique duties of BCG is to provide assistance for the protection of marine biodiversity and endangered species. This responsibility has been entrusted to this force by the Sustainable Development Goals (SDG) 14 (life below water) and Seventh Five-Year Plan. It is well-known that the ocean's biodiversity is frequently being threatened by over-extraction or indiscriminate exploitation or pollution. BCG is responsible to eliminate or reduce all these threats and provide assistance to protect the biodiversity especially the endangered species such as Tokay Gecko, Olive Ridley Turtle and so on. In this respect, BCG works

²⁸ SONAR abbreviates as Sound Navigation and Ranging which is an equipment capable to determine underwater objects by transmitting and receiving sound waves in the water.

closely with various government departments, e.g., forest, environment and fishery and livestock and believes that continuous cooperation will yield better protection of biodiversity and endangered species.

5.3 *Need versus State*

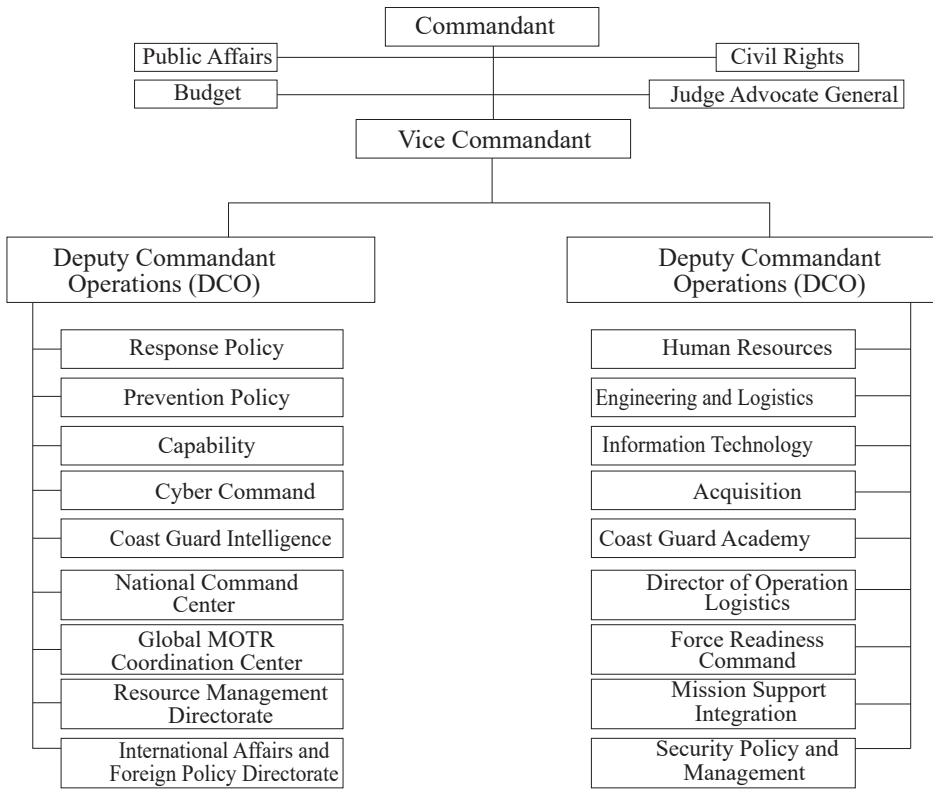
BCG Vision Document 2041 has carried out a detailed analysis of the aforementioned tasks and resource requirement for accomplishing the tasks. Recently, the government has approved BCG's short, medium and long-term plans as envisaged in the vision document along with its phase-wise plans to acquire assets, infrastructure and manpower.²⁹ The plan is ambitious and very challenging. It entails establishing of BCG's own air wing, procurement of shipborne drones to patrol the entire AOJ, procurement of OPV of larger than 3500 tons, dedicated salvage ships and pollution response ships, hovercraft, specialized boats like diving boats and interceptor boats. BCG has charted its course towards its vision 2041. It is now time for the force to put together all its efforts and follow the laid down track.

6. State of Maintenance and Logistics Infrastructure

In the warfare possibility of victory largely depends on the logistics. This is also applicable to the operational activities of BCG as it is constantly at war with the maritime criminals, human-traffickers, abductors, extortionists, drug-dealers, Illegal, Unreported and Unregulated (IUU) fishers and similar offenders. The logistical necessity of the coast guard can be further understood from the organogram of the USCG Headquarters. Figure 1 illustrates the USCG's organogram. It basically stands on two pillars. One of which is mission support, principally logistics.

²⁹ Interview with Director, Plans and Acquisitions, Coast Guard Headquarters, op. cit.

Figure 1: US Coast Guard Headquarters Organogram³⁰



Source: Created by Author based on the website of USCG.

6.1 State of BCG’s Logistics Facilities

The deficiency in BCG’s overall state of resources reflects its state of logistics facilities. Despite adequate supply of logistics, the force is not able to maintain the principle of logistics, namely, ‘right thing, in the right time and in right place’ due to the lack of necessary infrastructure and facilities as well as the remoteness of its installations. Thus, providing necessary logistics to BCG’s stations and outposts is a challenge. Moreover, BCG ships do not have adequate berths and need of it is increasing day by day. Its bases are yet to build fuel dumps which will supply fuel to its ships and transports. Furthermore, BCG does not have a central logistics depot and its zonal logistics depots are yet to be established. The force is in the process of

³⁰ United States Coast Guard, “United States Coast Guard Organization Chart”, available at <https://www.uscg.mil/Units/Organization/>, accessed on 27 September 2019.

creating stores for housing its spares. No stations and outposts of BCG's bases have hoisting and lowering facilities of boats, except Chattogram base.

6.2 State of Repair and Maintenance Facilities

Currently, BCG has 25 ships of different sizes and 103 boats of different origins. Since inception, the force has undergone a series of 'trial and error' process on determining the suitability of its platforms. For the first time, the force in its vision document 2041 has standardized the ships and boats. Hence, the creation of necessary knowledge-base for those platforms is the need of hour for the force.

At present, BCG's ships in the East Zone (Chattogram) are generally repaired in Bangladesh Navy Dockyard through an agreement concluded during the establishment of BCG. Ships in the West Zone (Mongla) are generally repaired by Khulna Shipyard Limited (KSY), whereas the ships of the South Zone and Dhaka Zone are repaired either by Dockyard Engineering Works (DEW) Limited, Narayanganj or by other shipyards. BCG tries to maintain its boats through these dockyards but principally depends on outsourcing to repair them.

Except mission-critical spares, most of the BCG's ships and boats' spares are available commercially. At the same time, the repair facilities in the commercial arena are not capable of undertaking repair and maintenance works of BCG platforms. As a result, outsourcing of repair and maintenance work has become a logical trend. However, some of the mission-critical repair and maintenance equipment and facilities need to be owned by the force itself for flexibility. To attain flexibility as well as self-sufficiency in repair and maintenance facilities, BCG has started building its own dockyard in Gazaria, Munshiganj. The dockyard is scheduled to be completed by June 2021. But significant headway towards the establishment of the dockyard has not been made. Besides, BCG's proposal to the Ministry of Public Administration creating 910 uniformed and civilian posts to work in the Dockyard is not approved. The ministry has instructed to put up the proposal after establishing the dockyard. This will create challenge to run the Dockyard. Besides, naval sailors need at least three years of basic training to perform the basic duties on board a ship. For carrying out repair and maintenance, a sailor must have served on board for a sufficient period to diagnose the equipment's defects. It needs at least five years to make a sailor capable of performing the basic repair and maintenance functions in a dockyard. The required time for officers is even longer. In addition, BCG remains unable to develop the necessary manpower to repair and maintain the boats as its technical personnel come from the navy and are posted for a short time and go back to the parent force due to career compulsions. Consequently, they lack competence to diagnose the

defects and to repair and maintain the boats. These inferred that lack of technical personnel restricts the utility of the dockyard severely. Thus, the recruitment of BCG's own manpower is of paramount importance.

Besides, the technical branch sailors get professional training on generic equipment. They remain unable to develop expertise on all machinery. After the courses in the technical schools, they need to undergo practical service on board ships and learn the equipment hands-on. The longer they operate and maintain equipment, the faster and better they can maintain it generally. It needs, therefore, a great deal of time and learning to build competent technicians. But BCG does not have that scope and remains 'stuck to the basics'. This is another reason for lack of BCG's repair and maintenance expertise at a desired level.

Over time, BCG's hard work towards establishing some civil infrastructure has paid off. Unfortunately, there is no laid down procedure to maintain them. There are no dedicated people such as mason, electrician, mechanic, plumber, waterman and carpenter to maintain its facilities. Moreover, as an organization, BCG is not authorized to design and build its own buildings. As per the government's system, BCG's buildings are made by Public Works Department (PWD). The department has the capacity to build but no manpower to maintain the buildings. Considering this issue, BCG proposed to create a works directorate in its headquarters and a base maintenance service group in each base consisting of all types of technicians. But the proposal has been turned down by the ministry. The absence of such a group is acting as a lacuna in the force's overall maintenance capability which is not going to be resolved in the near future.

7. The Study of Other Coast Guards

To resolve the vital deficiencies, BCG will be benefitted from the practices of other coast guards across the globe. In this regard, USCG and ICG are considered to offer useful insights.

7.1 *The US Coast Guard (USCG)*

As the largest and oldest Coast Guard, the USCG operates over 210 ships, 1400 boats and 230 aircrafts. It defines logistics as "a generic term which encompasses all those support activities associated with developing, acquiring, testing, and sustaining the mission effectiveness of operating systems throughout their service lives. The overall objective is to provide the right persons, things, and information, at the right time, at the right place and at a reasonable cost." It considers human resource and information as a logistics function. In USCG, the

Deputy Commandant for Mission Support (DCMS) deals with the maintenance and logistics aspects. Under DCMS, the Engineering and Logistics Directorate provides technical, logistics and engineering support for all Coast Guard operating programmes, i.e., SAR, environmental, etc. This includes performing or assisting in planning, design, construction, acquisition, renovation, maintenance, outfitting and alteration of cutters³¹, boats, aircraft, motor vehicles and shore facilities through their life-cycles.³² It has practically specialized on infrastructure, maintenance and logistics aspects over the centuries. While the coast guards in the developing nations are still fighting to get adequate infrastructural facilities, the USCG has adequate infrastructure for long.³³ The report of US Government Audit Office reveals that many of its shore infrastructure are in the process of recapitalization now.³⁴ Indeed, BCG can lessen from the developed capabilities of USCG in terms of its force-specific resources along with adequate logistics and maintenance facilities.

7.2 Indian Coast Guard (ICG)

ICG started its journey in 1978 with only two ships taken from Indian Navy. Currently, the force operates over 64 ships, 68 patrol boats, 28 interceptor crafts, 18 hovercrafts and 68 different types of aircrafts.³⁵ It aspires to achieve a fleet of 200 ships and 100 aircrafts by 2022.³⁶ This sizeable fleet is dispersed all over the country's 2000 nautical mile coastline and in the Andamans and Nicobar islands. However, the logistics support of this fleet, providing the right items to the right place, in right quantity and at the right time, poses an enormous challenge. To solve the logistics problems, ICG has adopted an innovative step—outsourcing. It has outsourced many services which are not critical to mission accomplishment such as providing ration, fuel, transport, etc.³⁷ The force uses all the facilities of Indian Navy. Along with Indian Navy, ICG has ordered 32 HAL Dhruv aircraft and Performance-Based Logistics (PBL)³⁸ which are emerging as preferred acquisition strategy for defence acquisition and asset management. In fact, PBL is the purchase of logistics support as an integrated, affordable, performance package designed to optimize

³¹ US Coast Guard vessels which are more than 65 feet (approx. 20 meters) in length, are called 'Cutters', as opposed to vessels less than 65 feet in length which are referred to 'boats'.

³² United States Coast Guard, "Assistant Commandant for Engineering and Logistics", available at <https://www.dcms.uscg.mil/Our-Organization/Assistant-Commandant-for-Engineering-Logistics-CG-4-/>, accessed on 17 July 2019.

³³ United States Coast Guard, *United States Coast Guard Human Capital Strategy*, New York: USCG, 2016.

³⁴ United States Government Accountability Office, "Coast Guard Shore Infrastructure", available at <https://www.gao.gov/assets/700/697012.pdf>, accessed on 17 July 2019.

³⁵ "Coast Guard proposes to induct 38 more aircraft by 2020", *The Economic Times*, 14 July 2018.

³⁶ "Coast Guard to add 50 vessels to its fleet in four years", *The Economic Times*, 09 January 2019.

³⁷ R. N. Misra, *Indian Ocean and India's Security*, New Delhi: Mittal Publication, 1986.

³⁸ "Assam NRC: What next for 1.9 million 'stateless' Indians?", *BBC News*, 31 August 2019.

system readiness and meet performance goals for the product through long-term support arrangements with clear lines of authority and responsibility.³⁹ Indeed, due to the advancement in industrial sector and government owned military hardware manufacturers ICG remains able to enter into long-term contracts of supply and maintenance, and thereby reducing burden of related logistics support.⁴⁰ Hence, ICG case offers many takeaways for BCG's logistics management.

However, even after forty years of journey, ICG lacks in critical infrastructure. According to a report at least 16 ICG's stations do not have basic facilities like jetties for berthing ships, fuelling facilities, etc.⁴¹ In other cases, many ICG stations do not have their own facilities and hence are compelled to hire facilities to carry out their operational activities. Also, some ICG stations are forced to operate through temporary structures as the land is not owned by it.⁴² Besides, some other ICG installations lack basic facilities like a jetty or berthing facility for ships/boats.⁴³ These are restricting ICG's ability to use its full capability and the force is trying to overcome them. These deficiencies also link to the current state of BCG which it is trying to overcome gradually.

7.3 Solutions/Options for BCG

From the above discussion, the paper found that the two coast guards have almost contrasting level of infrastructure and different degrees of logistics and maintenance capability. In light of the state of resource development of the two coast guards, BCG can derive viable solutions to its problems, especially, deficiency in critical resources. The procurement of these resources requires tremendous amount of effort and time along with huge amount of money. Furthermore, a lot of other necessary steps need to be taken. Some of the steps are mentioned below:

- BCG needs to carry out serious and detailed brain-storming and need assessment objectively. This need assessment should be represented to the government in a convincing way. For the development of the three kinds of resources simultaneously—manpower, infrastructure and platforms, a proper plan is a must. After that, the force has to breakdown the big plan into short, medium and long-term plans and

³⁹ "From Assam Accord to NRC discord: A timeline", *The Economic Times*, 02 August 2018.

⁴⁰ Indian Coast Guard, "History", available at https://www.indiancoastguard.gov.in/content/290_3_History.aspx, accessed on 17 July 2019.

⁴¹ "Performance Audit on the Role and Functioning of the Indian Coast Guard", available at https://cag.gov.in/sites/default/files/audit_report_files/Union_Performance_Defence_Services_Role_and_Functioning_Indian_Coast_guard_7_2011.pdf, accessed on 23 October 2019.

⁴² Ibid.

⁴³ Ibid.

start materializing them. In this respect, important is to inform the officers and personnel of the force about the procedure of the plan.

- To solve the manpower shortage of the force, it must recruit its officers, sailors, pilots, air crew, specialists and so on. Because its future ships and aircraft need seamen to drive them, pilots to fly them and mechanics to fix them. Once own manpower will be in place, a large portion of the logistics, repair and maintenance problem will be reduced significantly.
- To overcome the berthing, logistics and repair facility for the ships, BCG needs adequate amount of land with river or sea front to construct jetty or place pontoons to provide berthing of ships and build repair workshops, maintenance yards, administrative facilities, logistics facilities, training infrastructure, accommodation for the crew and hospitals facilities for the crew adjacent to the river or sea fronts. To this end, BCG should undertake a Development Project Proposal (DPP) by employing the right kind of people either from in-house or hired as consultant. One thing BCG needs to look into is, while acquiring assets, it should look into the ICG's practice of outsourcing different services and strive to create a lean organization.
- Finally, BCG needs to carry out extensive and continuous Research and Development (R&D) to find out ways and means to develop its assets towards the optimum fulfilment of its mandates and satisfaction of its stakeholders.

It is learnt that the government has recently approved BCG's work plan in Vision Document 2041; hence, the onus of progress and the pace of development now lie on the force.

8. Conclusion

BCG has been making tremendous strides towards success since inception. Its achievement graphs showing upward trends. With less than three thousand personnel, the force has seized almost 17 per cent of the total catch of yaba of the country. The force has achieved the National Fishery Award (Gold) in 2018. Due to the initiatives of BCG along with other forces, the yield of Hilsa has risen from 3.5 lac metric tons in 2014 to 5.17 lac metric tons recently.

The BCG was established on 14 February 1995 but its actual development became visible when Bangladesh Awami League came to power in 1996. Its progress

got tremendous impetus when the party again formed government in 2009.⁴⁴ Since then, the manpower and infrastructure of the force have seen considerable increase. But it remains unable to make satisfactory progress in acquiring adequate mission-critical resources such as own manpower, land and infrastructures. It is also lagging behind in acquisition of adequate mission-critical specialized platforms and building logistics, repair and maintenance facilities. These critical shortages have been creating setbacks in the force's capability to perform its duties at the desired level.

Along with lack of own manpower, land and infrastructure create hinderance to the progress of the force which if addressed, could have resolved many of the force's shortfalls. Unfortunately, the land and infrastructure are far below the need of the force. Consequently, the force is unable to perform its operational duties at the expected level. Hence, BCG needs to raise its demand of own manpower and infrastructures.

Lack of force-specific resources also creates impediments for the force to carry out the vested duties up to the optimum level. As the only organization designated to carry out maritime SAR, the force needs to build adequate capacities. Similar capacity building is also needed to accomplish other specialized tasks such as pollution response, salvage, protection of bio-diversity and endangered species. To that end, the force has formulated a vision document and charted a course which is a good step. However, recruitment of own manpower is prerequisite for the capacity building of the force. Therefore, lack of own manpower is the fundamental issue behind all challenges which needs to be addressed as soon as possible.

To achieve its vision 2041, BCG needs to develop the logistics, repair and maintenance facilities proportionately from the current state. The development must be simultaneous and well-synchronized with the development of operational capability of the force. In this respect, BCG can follow the two-pillared organogram of USCG. Alike, self-sufficiency in other mission-critical resources of the force, such as specialized platforms and equipment, land and infrastructure are crucial for the forces journey towards achieving vision 2041, when Bangladesh is expected to be in the community of developed nations. Furthermore, it needs to devise a well-thought-out plan to acquire all these critical resources simultaneously and materialize the vision tenaciously. If all these resources are developed together in a synchronized way, the cumulative benefits will surely rise the capability of the force to a level where it will become the true 'Guardian at Sea'.

⁴⁴ Mohammad Khurshed Alam, *Bangladesh's Maritime Challenges in the 21st Century*, Dhaka: Pathak Shamabesh, 2004, p. 236.