

## Problems and Prospects of Maritime Education in Bangladesh

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### ***Abstract***

*Bangladesh, being a maritime country, has economic and political dependence on her sea area. After having international recognition through judicial process, it is right time to utilise the ocean resource for sustainable development of the country through all means of exploration, collection and conservation of marine resources. But truly speaking, the conditions of human and technical resources are frustratingly insufficient to implement the concepts of blue economy in Bangladesh. This research focuses on the current situation, challenges and prospects of maritime education and training in Bangladesh for the purpose of sustainable economic development through blue economy.*

**Keywords:** Maritime education and training, blue economy, sustainable development.

### **Introduction**

Traditionally Bangladesh is a maritime nation. Her maritime history may be traced back to thousands of years. Many nations in the past annexed in this part of Asia to flourish their trade and commerce as well as power. From time immemorial inhabitants of this region depended on the Bay of Bengal for their livelihood. Scarcity of land resources and advent of modern technology opened a new era, centred at Blue Economy. The father of the Nation Bangabandhu Sheik Mujibur Rahman underscored the importance of endless sea resources and first time in the history he enacted the Territorial Waters and Maritime Zones Act 1974 to establish Bangladesh's sovereign rights over the sea and its resources. Through the victory over the maritime boundary disputes with India (2014) and Myanmar (2012) under the dynamic leadership of Prime Minister Sheikh Hasina plots have been set up for Blue Economy. This warrants a meaningful Maritime Education and Training (MET).

The term Maritime means a large sunshade over the international and inland commercial, naval and fishing fleet, maritime administration, consultancy, education and training, port and shipping operations, trade, ship-building, marine environment conservation, sub-sea extraction, ocean research and so on. The human civilization's dependence and attachment to oceans, seas and rivers is so Spontaneous that it yields a feeling that world means water: Blue Planet; anyone directly or indirectly attached to it is Maritime Human.

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Efforts of Maritime Human Resource Management have always been an issue for government of Bangladesh. Seaman's Training Centre (STC) is one of the first known formal educational institutes primarily dedicated to developing seafarers for the nation. In due course of time numbers of institutes and research centres have been established but none of them are fully maritime in nature. To fill up this gap Bangabandhu Sheikh Mujibur Rahman Maritime University (BSMRMU) was established in 2013 with a mission to be a centre of excellence in post-graduate maritime education blended with professional research and capacity building through sustainable development.

With this backdrop the aim of this paper is to examine the problems and prospects of MET in Bangladesh and put forward some recommendations. After short introduction and conceptual discourse the paper highlights the history and present state of MET in Bangladesh and then problems and prospects of MET are examined followed by recommendations.

### **Conceptual Discourse**

The MET may be defined as the process of knowing maritime affairs from the sea job to shore shipping management, way forward to the legal, logistics, transport and supply chain management. Maritime Studies is an interdisciplinary academic field that embraces the liberal arts as the foundation for exploring humankind's critical and continually evolving connections with the world's waterways and watersheds. It highlights the social and cultural side of the human/water relationship, and recognises and explores the links between human activities and the composition and the condition of the coastal and marine environments.

Chowdhury defined MET as a set of interdependent processes such as teaching, learning, researching and resources (human, material and information) that function harmoniously to achieve specified educational objectives. Some of the institutions providing maritime studies combine a broad grounding in technical and scientific coursework with the study of courses in arts and humanities; while maritime academies prepare cadets for careers in the merchant marine. Maritime studies programs prepare students for a variety of careers in the maritime industrial and service sectors also.

### **History of MET in Bangladesh**

History reveals that people of this area had maritime knowledge from the early civilization. Trade, fishing and shipbuilding knowledge prevailed from as early as 2300 BC. It is reported that a Frigate for German Navy was built in Chittagong in 1818. The knowledge of maritime affairs was disseminated to the successors from

ancestors in informal way. Till the establishment of STC (present National Maritime Institute (NMI)) in 1952 there was no formal education in this sector. It was followed by Bangladesh Institute of Maritime Technology (BIMT) in 1958 and Bangladesh Marine Academy (BMA) in 1962. Bangladesh Marine Fishery Academy (BMFA) was established in 1973 with a view to educate fishing professionals. Gradually numbers of Government and Private Marine Academy have been established. Till the establishment of Bangladesh Navy (BN) Hydrographic and Oceanic Centre (BNHOC) maritime education was one dimensional and was aimed to create seafarer i.e. merchant mariners only. The BNHOC imparts training on ocean bed morphology and preparation of chart. Some of the public universities also conduct some courses related to maritime field. Latest addition to MET is BSMRMU established in 2013 with an aim to bring all maritime professional to a common platform.

### **Present Scenario/Overview of MET in Bangladesh**

The MET in Bangladesh started in 1952 through the establishment of NMI the former STC. The NMI started its journey as small institute in 1952 and has shifted to its present location in 1984. It is one of the most modern and International Maritime Organisation (IMO) white listed institute in the region. It conducts pre sea training for the ships' ratings: Deck, Engine and Saloon. In addition it also conducts short mandatory ancillary courses for both officers and crew. The STC is not affiliated with any university and functions under Ministry of Shipping.

The BMA established in 1962, mainly conducts pre sea training for the seafarer in nautical and engineering discipline. It became a branch of World Maritime University (WMU) in 1990. Since then it conducts relevant professional courses at regular interval. Presently BMA conducts 4 years Bachelor of Maritime Science (BMS) programme under the umbrella of BSMRMU. This course has been designed to create alternative career pattern through ashore stream. Administrative control of BMA is vested with Ministry of Shipping while academic affiliation is with BSMRMU.

The Government has also approved four more Marine Academies yet to start their function. In addition there are 18 private marine academes in Bangladesh. Academic activities of these private marine academies are of two types. Three of them provide 2 years long complete pre-sea training in Bangladesh while others conduct one year basic training in Bangladesh and one year pre-sea training in overseas MET intuitions. These academies very often fail to maintain standard and are not yet affiliated with any universities.

The BMFA was established in 1973 with an aim to create skilled manpower for judicious exploitation and harvesting of marine fisheries resources. Since its inception academy is exploring and pooling the seafaring talents of the country and training them to become a Navigator, Engineer and Fish Processing Technologist. It is affiliated with National University which confers three years B Sc (pass) degree. The core disciplines are Nautical, Marine Engineering and Fish Processing. The academy is under the administrative control of Ministry of Fishery and Livestock.

The BNHOC were established in the year of 2001 merging BN Hydrographic School (1983) and BN Chart Depot (1983). In BN Hydrographic School mainly two types of courses are conducted: Basic Hydrographic Course and Survey Recorder Course. These courses are designed for navy personnel only and are not affiliated with any universities. Besides BNHOC, BN also trains her personnel in coastal security, navigation, engineering, naval warfare and logistics management and thus contribute to MET in Bangladesh.

Bangladesh University of Engineering and Technology (BUET) conducts undergraduate and post graduate programme on Naval Architecture and Marine Engineering (NAME) since 1971. These programmes have been designed to produce human resources to contribute various maritime sectors specially ship building industries. Military Institute of Science and Technology (MIST) has also recently (2013) started NAME programme at undergraduate level.

University of Dhaka (DU) started postgraduate programme in Oceanography in 2013. Presently (2014) the university started bachelor programme in the same field. Institute of Marine Science and Fisheries (IMSF), (former department of Marine Biology and Oceanography) University of Chittagong (CU) on the other hand conducts undergraduate and post graduate programme on Marine Science and related discipline. The prime objective of this institute is to produce highly trained graduates to develop the marine resources of the country. The IMSF has also been established in University of Science and Technology at Noakhali and Patuakhali. The University of Khulna (KU) established school on Fisheries and Marine Resources Technology (FMRT) in 1991. It is learnt that Shahjalal University of Science and Technology (SUST) has also introduced courses on Oceanography.

The BSMRMU only specialised university in the maritime field presently conducts two master programmes: LLM (Maritime Law) and Port and Shipping Management. BSc in oceanography programme is scheduled from January 2017. With a motto “We strive to Maritime Excellence” the university is designed to have seven faculties and four institutes under her umbrella. The faculties are:

Faculty of Maritime Governance & Policy (FMGP), Faculty of Shipping Administration (FSA), Faculty of Earth and Ocean Science (FEOS), Faculty of Engineering and Technology (FET), Faculty of General Studies (FGS), Faculty of Computer Science & Informatics (FCSI) and Faculty of Business Studies (FBS). Under these faculties there will be 38 different departments. The institutes include: Institute of Bay of Bengal & Bangladesh Studies, Institute of Renewable Energy & Marine Resource, Institute of Disaster Management and Institute of Modern Language. It also conducts professional short courses. Within its short span of journey the university established collaboration with 13 universities both at home and abroad. Presently the university functions at his temporary campus, Mirpur Dhaka and gradually will be shifted to its permanent campus in Chittagong by 2021. As a young member university is facing challenges in finding qualified faculties.

On the vocational side, the first BIMT in Narayongonj was established in 1958. Three recently established BIMTs at Sirajgonj, Faridpur and Bagerhat started their academic activities since 2014. Two more BIMTs are being constructed at Munshigonj and Chandpur. BIMTs cater to educate and train the technicians for shipbuilding and repair industries. The BIMTs conduct four years diploma courses in Marine and Shipbuilding Technology. They also conduct two years' trade courses on marine diesel, fabrication, shipbuilding, welding and mechanical draftsman.

Port Authorities of Bangladesh and Bangladesh Inland Water Transport Authority (BIWTA) also conducts some in house courses pertaining to maritime field. The BIWTA runs two Deck and Engineering Personnel Training Centre (DEPTC) at Narayongonj and Barisal and one Ships Personnel Training Institute at Madaripur. These centres conduct internship (deck and engine) and in service courses to develop skill manpower in inland transportation sector. The Chittagong Port Authority (CPA) has been imparting on the job training to all categories port officials and users since 1980. The Mongla Port Authority (MPA) also conducts professional courses for port officials and users.

Without research no education can be complete and sustainable. No remarkable researches have been carried out in maritime field except some academic research. Most of the researches in this field are fishery related and are limited to coastal areas. The Bangladesh Fisheries Research Institute (BFRI) in collaboration with the Bay of Bengal Large Marine Ecosystem (BOBLME) is conducting research on life cycle and integrated regional management measures of Hilsa. The institute has also signed Memorandum of Understanding (MOU) with Universiti Putra Malaysia (UPM), for joint research in the same field. To enhance research activities in maritime field the Bangladesh Oceanographic

Research Institute (BORI) Bill 2015 was passed on 25 January 2015. The new bill paves the way for a research facility based at Cox's Bazar's Ramu Upazila. Apart from working on maritime issues, the institute will also maintain an Oceanographic Data Centre (ODC). It will also look into the environmental impact before any public or private projects are initiated in the coastal area. The institute has been placed under Ministry of Science and Technology.

### **Problems/Challenges of MET in Bangladesh**

Numbers of public and private institutes are involved in MET in varying capacities. Lack of synergy between these institutes poses a great challenge to MET in Bangladesh. Other challenges may include: maritime domain blindness of the policy makers, absence of central controlling body, shortage of qualified faculties and insufficient capacity of national fleet etc.

a. **Lack of Synergy between MET Institutes.** The main institutes responsible for MET in Bangladesh are BSMRMU, BMA and BMFA. Administrative controls of these three institutes are vested with three ministries/agencies. The BMA is loosely connected with BSMRMU. On the contrary BMFA has no collaboration with BSMRMU. As such there exists lack of synergy between them. The problems have been further augmented by unplanned number of private institutes. This lack of synergy pose a great challenge for effective MET in Bangladesh.

b. **Maritime Domain Blindness of Policy Makers.** Though the father of the nation Bangabandhu Sheikh Mujibur Rahman realised the importance of maritime domain as early as 1974, after his assassination till 1990, policy makers remained blind to this area. As such sea in particular and maritime domain in general did not get due importance. However present government of Sheikh Hasina attached paramount important to maritime affairs. Nonetheless most of the policy makers are still maritime domain blind. Maritime awareness drive by BN often fails to ripe desired result due to absence of separate ministry for Maritime Affairs.

c. **Absence of Central Controlling Body.** Till now there is no single controlling body for MET in Bangladesh. To bring all maritime education to common platform, Government of India established Indian Institute of Maritime Studies (IIMS) on 6<sup>th</sup> June, 2002 placing four governments-run- maritime institutions within the domain of this institute. In 2008 Indian Maritime University (IMU) was set up as Central University intended to play a key role in the development of trained human resource for the maritime sector through managing, controlling,

supervising, directing and monitoring the academic activities of all maritime training institutions. This impacted positively on MET in India. Absence of centre controlling body for MET in Bangladesh is a great challenge.

d. **Shortage of Qualified Faculties.** Blue Economy agenda includes maritime education in tertiary level. One of the visual outputs of this drive is the establishment of BSMRMU. However, due shortage of qualified faculties, it finds it difficult to run the course. Like other public universities and institutions, BSMRMU is unable to offer attractive entry level compensation package for qualified teachers and trainers. Therefore, it faces difficulties to enrol qualified faculty members at these initial phases of establishment. As such very often the university needs to depend on foreign and local experts who are otherwise are busy in their respective professions. Shortage of qualified faculties is detrimental for sustainability of MET in Bangladesh.

e. **Insufficient Capacity of National Fleet.** Seafarers are normally expected to complete their initial on the job training in ships of their national carrier. At present Bangladesh Shipping Corporation (BSC) has only 3 vessels and in the process of procuring 8 new ships. In addition, the private sector in Bangladesh currently owns a total of 54 ocean-going merchant ships. In all these ships about 280 cadets can get their initial training onboard. Since 2013 about 700 to 800 cadets from both public and private marine academies require onboard cadet training on completion of their pre-sea training. Therefore graduates from both private and public marine academies are facing serious problem to complete their training for employment in recent years. The BMA still to acquire dedicated training vessel.

## **Prospects of MET in Bangladesh**

Victory over Maritime Boundary Dispute with Myanmar and India has opened a new era in the maritime sector which is likely to act as positive catalyst for increasing maritime zone awareness of the policy makers. Other prospects may include the establishment of BSMRMU, the establishment of Maritime Affairs Unit (MAU) at Ministry of Foreign Affairs (MOFA) and the establishment of BORI.

a. **Victory over Maritime Boundary Dispute with Myanmar and India.** The victory has reaffirmed Bangladesh's legislative right over Exclusive Economic Zone (EEZ) and continental shelf and thus opened

windows of opportunities for the exploration of sea resources. Safe extraction of sea resources call for skilled manpower in maritime sector. The MET has no alternative for human resource development in this sector. The two historical verdicts by International Courts of Justice (ICJ) and International Tribunal on the Laws of the Seas (ITLOS) in 2012 and 2014 respectively on Bangladesh's disputed maritime boundary has established legitimate right on about 1,18,813 square kilometres of territories at the sea. This undisputed sea area with two important neighbours India and Myanmar is expected to generate international and regional cooperation in maritime economic activities. Enhanced international and regional cooperation in trade and resource development would foster maritime industries and offshore activities in Bangladesh. As the maritime industry and offshore activities advances, the required knowledge to cope with the demand also increases, thus higher level MET has become a priority, which demands more budget in MET. The verdicts would act as positive catalyst to convince the government for enhanced budget allocation to MET. Hence Victory over maritime boundary disputes with Myanmar and India could encourage MET for enhanced capacity building in maritime sector.

b. **The Establishment of BSMRMU.** In accordance to its act, BSMRMU is mandated to provide undergraduate and post-graduate studies in all maritime disciplines including maritime strategy, maritime security, ship building engineering, ocean science, maritime legislature and all other areas of maritime sciences as may be annexed from time to time. Subjects like information technology, environment, energy, economics, business, etc. may also be opened in course of further development of this university. Additionally, it will award professional degrees along with vocational maritime diplomas and short courses, providing jobs for thousands onboard international flag carriers. An important aspect of BSMRMU is its power of affiliation of academies and institutes. As such BSMRMU has bright prospects to act as a central body for all levels of MET. The BSMRMU may also to act as a coordinating body among maritime security organisations like BN, Bangladesh Coastguard; public and private universities, marine academies, institutions, etc. regarding MET in Bangladesh.

c. **The Establishment of Maritime Affairs Unit.** After winning 118,813 sq. km territorial waters and an EEZ in international arbitrations over the past last few years, the government is now set to form a permanent Maritime Affairs Unit (MAU) under the foreign affairs ministry to ensure their maintenance and proper use. This unit shows



great prospects to become full ministry to oversee the maritime activities including MET in Bangladesh.

d. **Establishment of BORI.** For sustainable economic development linkage between academic institutes, research centres and industries is necessary. This linkage is mostly absent in the maritime domain. The BORI can establish the missing linkage and enhance research in the maritime sectors. Thus the establishment of BORI shows a great prospect for the MET in Bangladesh. This will in turn contribute significantly to overall blue economy initiatives of the present democratic government.

## **Conclusions**

Well-trained, skilled and educated human resources are the driving force of the development of an economy, who can participate in the globalization of business and the accompanying technological revolution. Dynamic and sustainable development is not possible without skilled workforce. Having assessed the need of world market and local industry, appropriate MET is essential for sustainable development. The field of MET could be as diversified as marine science, oceanography, ocean and offshore engineering, maritime logistics and transportation as well as legal.

A large eligible population places Bangladesh in a suitable position to produce skilled human resources in almost any sector imaginable. A thrust in blue economic growth may come from a large army of skilled coastal and offshore engineers, navigators, merchant mariners, fisheries technologists, biotechnologists, legal experts etc. and in a variety of other professions. Bangladesh has enormous potential for seafaring job opportunities from its private and public marine academies provided it can arrange on board practical training facilities for its would be seafarer and also can remain in the white list following STCW 95. Nevertheless exploration and exploitation of vast sea resources show promising future for maritime legal experts, offshore and ocean engineers as well as maritime logisticians. This calls for a unified centrally controlled MET in Bangladesh.

## **Recommendations**

It is recommended that:

a. The Maritime Affairs Unit of MOFA may be converted into Ministry of Maritime Affairs, through which it will be easy, to take integrated program on maritime affairs including MET.

- b. The BSMRMU may be declared as central university for MET and all maritime institutes may be affiliated with it.
- c. The BMA may pursue to acquire dedicated training ship to reduce waiting time for practical see training.
- d. Concerned ministry and agency may introduce attractive entry level compensation package for qualified teachers and trainers in the formation stage of BSRMRMU.

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