

*Md Shahidul Hasan*

## MARITIME VERDICTS AND AVENUES OF RESOURCE EXPLORATION FOR BANGLADESH

### Abstract

The recent settlement of long-standing maritime boundary dispute with India and Myanmar ushers a new horizon for economic development for Bangladesh through utilising the sea and its marine resources. The judgment, not to mention, bears huge implications in many dimensions. Both the verdicts have removed all encumbrances to go ahead with oil and gas exploration in the blocks therein. This will enable Bangladesh to establish 'Blue Economy', an alternative economic model, utilising all its marine resources. The concept of 'Blue Economy', can significantly contribute to the economic development of Bangladesh. There is no doubt that sea-related issues like expansion of international trade, use of marine mineral resources for long-term energy security, proper management of marine fish resources and protection of marine environment and bio-diversity would determine Bangladesh's future development and economic growth. Bangladesh can be benefited only when it can explore and utilise those resources from the sea. Given this backdrop, this paper attempts to discuss maritime dispute and verdict of Bangladesh in a nutshell, analyse the Bay of Bengal as a hub of huge exploration, challenges therein and finally put forward suggestions for exploring enormous opportunities in the newly settled maritime area.

### 1. Introduction

South African scholar Marie Muller said - "relations with one's neighbour are usually most immediate, as these will have a direct effect on how a country is otherwise able to function in the international community".<sup>1</sup> Proximity may breed contempt, suspicion and not infrequently frictions. But, the compulsion of proximity is that, unless a relation of trust and cooperation evolves, an element of insecurity remains at one's doorstep. And this problem gets more acute when a country is neighbored by big countries. Bangladesh is on the same footing. The country is located at the northern limit of the Bay of Bengal in a broad and deep concavity between Myanmar in the east and India in the west. However, the combined effect of the equidistance lines claimed by its neighbours prevented Bangladesh from reaching 130 nautical miles (nm) from its coast, even leaving it with a narrow wedge of maritime area.

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<sup>1</sup> Marie Muller, "Hydro political Hotspots in Southern Africa: Will There be a Water War?", available at <http://www.greencrossinternational.net>, accessed on 10 September 2014.

Furthermore, the sudden emergence of 'South Talpatti Island' ('New Moore' as addressed by India) in 1971 in the southern Bay of Bengal had worsened the relation more between Bangladesh and India.<sup>2</sup> Bangladesh tried to solve the problem amicably several times but failed to get much response from the neighbours. Finding no other way, Bangladesh launched its legal claims to International Tribunal for Law of the Sea (ITLOS) and Permanent Court of Arbitration (PCA) in the year 2009. Bangladesh got verdict against Myanmar on 14 March 2012 and against India on 7 July 2014. The verdicts cannot be appealed as was agreed by the three nations.<sup>3</sup>

Bangladesh has now got 1,18,813 sq km of territorial sea, 200 nm of Exclusive Economic Zone (EEZ) and a substantial share of the extended continental shelf *vis-à-vis* Myanmar and India. Thus, Bangladesh has maritime zone almost the size of the country itself. It has created a scope for huge economic opportunities for Bangladesh basing on the sea. Now, ocean can provide potential food security, aquaculture, biotechnology, alternative energy source (oil and gas), tourism, marine transportation and shipbuilding, eco-system services, etc. – utilising sustainable economic opportunities under the banner of 'Blue Economy'. The role of marine resources in self-sufficiency in food production, protecting environmental balance, facing adverse impacts of climate change and other economic activities is unlimited. However, Bangladesh is not ready to explore these marine resources yet. It lacks adequate expertise and technology to exploit these resources. There was no survey carried out even in the recent past to know as to how much resources are reserved within its stipulated maritime boundary. But, as a coastal developing country, Bangladesh has remained at the forefront of this 'Blue Economy' advocacy, recognising that the oceans have a major role to play in poverty alleviation and economic emancipation. According to Professor Kausar Ahmed, "winning maritime dispute is not ultimate solution to the problem. Rather; the country needs a co-ordinated effort and expertise to utilise the sea sources".<sup>4</sup> He said it was good that the country has settled its sea boundary dispute with India and Myanmar. But, the country would have to make a quick survey to know as to how much resources are reserved within its maritime area. According to that, necessary action plan has to be taken at the national level immediately.

In such backdrop, this paper attempts to identify probable sectors in which Bangladesh can establish sustainable 'Blue Economy'. For that, methodologically, the paper is based on secondary sources; such as journal articles, booklets, newspaper clippings, concept paper of various Ministries, etc. In addition, primary data has been collected through several interviews with the concerned ministries, like Ministry of Power, Energy and Mineral Resources and Ministry of Fisheries and Live Stock. The paper is divided into six sections including introduction as section one. Section two

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<sup>2</sup>"Sovereignty of South Talpatti Island", *The Daily Star*, 01 October 2013.

<sup>3</sup>"Varoter Shateo Shomudro Joy", *Prothom Alo*, 09 July 2014.

<sup>4</sup> Arifur Rahman and Rafiqul Islam, "No Preparations to Exploit Huge Opportunities", *The Daily Sun*, 09 July 2014.

discusses the conceptual issues of 'Maritime Boundary' and 'Blue Economy'. Section three deals with maritime boundary issues and the verdicts of the claim. Section four consolidates the Bay of Bengal as the source of 'Blue Economy'. Section five highlights the probable challenges therein. Basing on that, section six suggests relevant recommendations along with conclusion.

## 2. Maritime Boundary and Blue Economy: Conceptual Issues

'Maritime Boundary' and 'Blue Economy' are complementary to each other because unless a defined boundary is earmarked, other can not be planned. For Bangladesh, it is more applicable. Maritime boundary is a part of the earth's water surface areas using physiographic and geopolitical criteria.<sup>5</sup> As such, it usually includes areas of exclusive national rights over mineral and biological resources encompassing maritime features, limits and zones. It is regarded as a legal tool to divide the earth's water surface into maritime areas based on physical or political geography. The concept of boundary maintenance can be well analysed as per the United Nations Conference on the Law of the Sea (UNCLOS) I of 1958, UNCLOS II of 1960 and UNCLOS III of 1982.<sup>6</sup> According to Articles 3 and 15 of UNCLOS III, every state has the right to establish the breadth of its territorial sea up to a limit not exceeding 12 nm, measured from baselines in the line of low water tide along the seashore of a state.<sup>7</sup> As per Article 17, ships of all states, whether coastal or land-locked, enjoy the right of innocent passage through the territorial sea. Article 33 gives authority of a state on certain other matters to further 12 nm called as contiguous zone. Article 55 allows an EEZ, an area beyond and adjacent to the territorial sea, where the coastal state has sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources.<sup>8</sup> As per Article 57, this EEZ shall not extend beyond 200 nm from the baselines.<sup>9</sup> UNCLOS III of 1982 in its Article 76 gives rights to the coastal states to own some more areas beyond the EEZ called the continental shelf.<sup>10</sup> Figure 1 shows the graphical classification of maritime zone of a coastal country as per UNCLOS 1982.

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<sup>5</sup> United Nations, "Office for Ocean Affairs and the Law of the Sea", *Maritime Boundary Agreements (1970-1984)*, New York, Vol. XVIII, No.1987, p. 297.

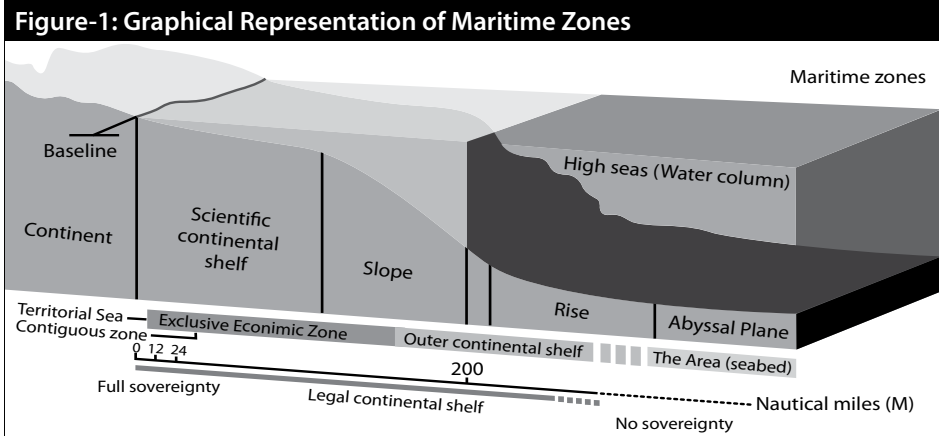
<sup>6</sup> M. D. Spalding, "Marine Eco regions of the World: A Bioregionalization of Coastal and Shelf Areas", *Bioscience*, Vol. 57, No. 7, 2007, pp. 573-583.

<sup>7</sup> K. J. Houghton, "Maritime boundaries in a Rising Sea", *Nature Geosciences*, Vol. 3, No.12, 2010, pp. 813-816.

<sup>8</sup> Shabbir Ahmed Chowdhury, "Delimitation of Maritime Boundaries of Bangladesh: Problems and Prospects", *NDC Journal*, Vol. 7, No. 1, June 2008, pp. 185-201.

<sup>9</sup> Harun ur Rashid, "Law of Maritime Delimitation", *Dhaka Courier*, Vol. 24, No. 39, 18 April 2008, pp.18-19.

<sup>10</sup> T. L. McDorman, "Towards the Conceptualization of Maritime Delimitation: Legal and Technical aspects of a Political Process", *Ocean Development and International Law*, Vol. 35, No. 4, 2004, p. 384.



Source: Ricardo Privation, UNEP/GRID-Arundel, 2009.

On the other hand, the 'Blue Economy' is a design theory initiated by Gunter Pauli. It does not solely mean marine fishing but also sustainable economic development, taking into account the advantages of managing the resources of the blue ocean. The 'Blue Economy' principles permit to respond to the basic needs of all with what a country possesses. It stands for a different way of designing business by using the resources available in cascading system, where the waste of one product becomes the input to create a new cash flow. It aims at creating jobs, building up social capital and rising income while saving the environment. An international community of companies, innovators and scientists support the concept as prosperous business model which targets to improve natural eco-systems and quality of life. One of the Rectors of the UN University, Professor Heitor Gurgulino de Souza, also commented that the 'Blue Economy' generates excellent ideas that will help entrepreneurs and consumers to significantly impact the economies of the world, while earning money, generating jobs and protecting the environment.<sup>11</sup> 'Blue Economy' concept has ushered a new horizon for economic development of the coastal countries like Bangladesh through utilising the sea and marine resources at national and international level.<sup>12</sup> Bangladesh can be a model for development of Blue Economy, like the European Union, Canada, the United Kingdom, Singapore, Brazil, etc.<sup>13</sup> The 'Blue Economy' is exactly that kind of model what Bangladesh needs to ensure a sustainable economy. The new ideas and innovative thinking are compiled here to give new options about how to transform the economy, so that, it can generate new jobs and sustain healthy and happy community in the future.

<sup>11</sup> "The Blue Economy: Design Theory", available at <http://www.theblueeconomy.org>, accessed on 10 September 2014.

<sup>12</sup> "PM for tapping other countries' expertise", *The Independent*, 02 September 2014.

<sup>13</sup> Sumon Mahbub, "Blue Economy Boon for Bangladesh", available at [bdnews24.com](http://bdnews24.com), accessed on 01 September 2014.

### 3. Maritime Boundary Issues and Verdicts with Neighbours

Both Myanmar and India followed equidistance principle while delimiting their maritime boundary which would have converged into a short distance in front of Bangladesh coast. These two lines would have created a “Cut-off” effect that deprived Bangladesh of the overwhelming majority of its maritime entitlement.<sup>14</sup> The combined effect of the equidistance lines truncated Bangladesh's maritime entitlement, leaving it with a narrow wedge of maritime space in such a way, notwithstanding country's substantial 421 km coastline.<sup>15</sup> In addition, India claimed 10 blocks and Myanmar claimed 17 blocks out of Bangladesh's claim of 28 blocks.<sup>16</sup>

#### 3.1 Bangladesh-Myanmar Maritime Boundary Issue

A few years back, tension between the two neighbouring nations mounted after Myanmar's warships and oil and gas exploration rigs intruded into Bangladesh waters in the Bay of Bengal.<sup>17</sup> Bangladesh's accusation was – Myanmar had violated its sovereign maritime jurisdiction which was the first sign of serious diplomatic spat between the two nations. Two days later, Myanmar withdrew their vessels under diplomatic pressure of Bangladesh.<sup>18</sup> Bangladesh instituted arbitral proceedings against Myanmar in International Tribunal for Law of the Sea (ITLOS) located in Hamburg, Germany under Annex VII of UNCLOS 1982 on 8 October 2009. The purpose was to secure a maritime delimitation for its territorial sea, EEZ and continental shelf.<sup>19</sup> Bangladesh requested the tribunal to adjudge the maritime boundary of the territorial sea as a line agreed by the states in 1974 and reaffirmed in 2008. ITLOS found that both 1974 and 2008 minutes did not constitute an agreement within the framework of UNCLOS Article 15.

Again, Myanmar wanted St. Martin's Island to generate a territorial sea of just 6 nm, rather than the 12 nm to which Bangladesh is entitled under Article 15 of UNCLOS. Myanmar argued that the island could not be described as a “costal island” because, it lays in front of the coast of the country. Bangladesh argued that St. Martin's Island should be given full effect because international law demanded it. In prior cases, International Tribunals awarded ‘islands’ with territorial sea of less than 12 nm only when they were barren and uninhabitable. In contrast, Bangladesh stressed that St. Martin's Island, in addition to being an important base for naval operations for the Bangladesh Navy, has a permanent population of about 7,000. The Tribunal agreed with Bangladesh's claims and gave full effect to St. Martin's Island.<sup>20</sup>

<sup>14</sup> Bishwajit Datta, “Equity Over Equidistance: A New Hope”, *The New Age*, 21 July 2014.

<sup>15</sup> R. Jones, “Sovereignty and Statelessness in the Border Enclaves of India and Bangladesh”, *Political Geography*, Vol. 28, No. 6, 2009, pp. 373-381.

<sup>16</sup> I. Hossain, “Bangladesh-India Relations: Issues and Problems”, *Asian Survey*, Vol. XXI, No. 1981, p. 274.

<sup>17</sup> Adnan Firoze, “Bangladesh-Myanmar Maritime Dispute: What Actually Happened?”, *Dhaka Courier*, Vol. 28, No. 36, 23 March 2012, pp. 12-13.

<sup>18</sup> Md Khurshed Alam, “Maritime Boundary Issues Between Bangladesh and Myanmar”, Paper presented in the Seminar on *Maritime Boundary Issues Between Bangladesh and Myanmar*, organised by BIISS, 28 February, 2012.

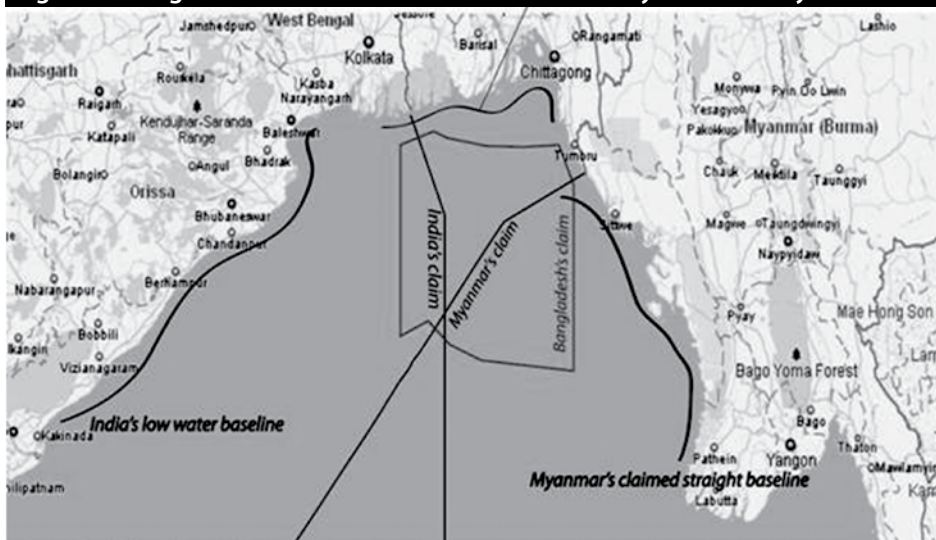
<sup>19</sup> *Ibid.*

<sup>20</sup> Shamim Ahmed, “Winning the Bay”, *Dhaka Courier*, Vol. 28, No. 36, 23 March 2012, pp.12-13.

### 3.2 Bangladesh-India Maritime Boundary Issues

Geologically, Bangladesh and India co-occupy approximately 180 km of maritime border line. However, both nations claimed overlapping maritime boundary due to constantly changing river courses from soil erosion and frequent floods. A small island unexpectedly emerged in the Ganges Delta region of the Bay of Bengal during the aftermath of the Bhola Cyclone in 1971 which now serves as the river border between Bangladesh and India; its geological location prompted both nations to claim the island under their jurisdiction.<sup>21</sup> Figure-2 shows the claim of both India and Myanmar on equidistance principle. Whereas, Bangladesh urged that principle of equity should be followed while delimiting the boundary.

**Figure-2: Bangladesh's Low Water Baseline Perceived by India and Myanmar**



Source: Google Maps, Nahar, 2009.

Bangladesh's objection to Indian claim was filed with the UN's Permanent Court of Arbitration based in the Hague, Netherlands as per Article 287(c). India applied the 'equidistance principle' while Bangladesh went for 'equity principle' to delimit their maritime boundary.<sup>22</sup> There were largely three issues in this maritime boundary dispute with India. Major among those was the determination of the Hariabhanga River border boundary, where the ownership of the South Talpatti (New Moore) Island became a center of dispute mentioned earlier. The second issue was determination of

<sup>21</sup> Saleh Akram, "Bangladesh and Changing Neighbourhood", *The Daily Sun*, 09 July 2014.

<sup>22</sup> W. M. Reisman and G. S. Westerman, "Straight Baselines in Maritime Boundary Delimitation", *St Martin Press*, Vol. XVI, 1992, p. 242.

territorial water boundary up to 12 nm. The third issue was determination of the EEZ boundary of a further 188 miles from the end of territorial water.<sup>23</sup>

### 3.3 Verdicts of the Claims

Bangladesh could finally establish its sovereign rights on more than 118,813 sq kms of territorial sea (both verdicts from the Hamburg Court and Hague Court), 200 nm of EEZ and all kinds of animal and non-animal resources under the Continental Shelf up to 354 nm from the Chittagong coast.<sup>24</sup> Bangladesh has settled its maritime dispute with Myanmar through a judgment by the ITLOS in Hamburg, Germany on 14 March 2012.<sup>25</sup> The judgment was according to Article 287 of (UNCLOS III) of 1982.<sup>26</sup> In this regard, the then Foreign Minister of Bangladesh, Dr. Dipu Moni said “This is a great day for Bangladesh. All our strategic objectives were achieved”. Through a landmark verdict by the PCA, Bangladesh has finally rightfully gained an area of 19,467 out of total 25,602 sq km in the Bay of Bengal with India.<sup>27</sup> The Hague based permanent court of arbitration delivered the verdict on 7 July 2014 after around five years of argument and counter argument by the two nations. Bangladesh has got all 10 oil and gas exploration blocks that claimed by India. Nevertheless, Bangladesh will have to redesign six blocks before going for a fresh bid (details have been shown in Table1). There is no existence of South Talpatti Island in the Bay as the island had been washed away two decades back which falls under Indian territory.<sup>28</sup>

Table 1: Key Features of Maritime Gains for Bangladesh		
Key Features <sup>29</sup>		
Serial No	Maritime Gains in Respect to India	Maritime Gains in Respect to Myanmar
1.	Tribunal awarded Bangladesh 19,467 sq km maritime area out of total disputed 25,602 sq km.	Bangladesh got around 70,000 sq km out of the total 80,000 sq km of disputed waters in the eastern part of the Bay, including access to outer continental shelf beyond 200 nm.
2.	Bangladesh owns an EEZ extended to 200 nm.	Court delimited a 41 sq km territorial sea around St. Martin Island.
3.	Bangladesh now owns 1,18,813 sq km territorial sea.	ITLOS has demarcated an EEZ of 685 sq km as well as full access to outer continental shelf.
4.	Tribunal agreed with Bangladesh’s equitable solution on disputed waters.	Tribunal agreed with Bangladesh’s equitable solution on disputed waters.

<sup>23</sup> K. J. Houghten *et al.*, “Maritime Boundaries in a Rising Sea”, *Nature Geoscience*, Vol. 3, No.12, 2010, pp. 813-816.

<sup>24</sup> Sharier Khan, “Verdict Brings New Hope”, *The Daily Star*, 09 July 2014.

<sup>25</sup> “Burma, Bangladesh Maritime Dispute Ends”, available at <http://sasba.net/news/burma-bangladesh-maritime-dispute-ends>, accessed on 10 June 2014.

<sup>26</sup> Luther Rangreji, “Bangladesh-Myanmar Maritime Boundary Delimitation Dispute”, *Journal of International Affairs*, Vol. 16, No.1 and 2, 2012, pp. 33-58.

<sup>27</sup> “Cheers, Bangladesh”, *The Daily Star*, 09 July 2014.

<sup>28</sup> “Sea Limit Row with India”, *The Daily Star*, 09 July 2014.

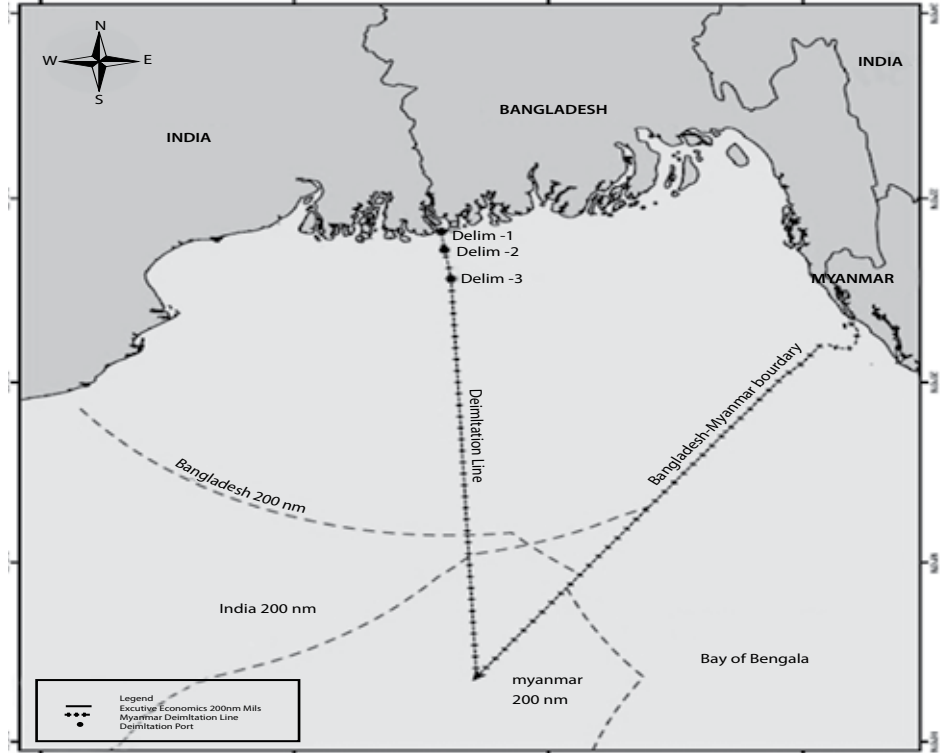
<sup>29</sup> Ishfaq Ilahi Choudhury, “A New Horizon of Cooperation”, *The Daily Star*, 10 July 2014.

5.	No existence of New Moor/Talpatti Island. The area went to Indian territory as per Radcliffe map.	----
6.	Tribunal awarded Bangladesh all the 10 blocks claimed by India.	Tribunal awarded Bangladesh 12 out of 17 blocks as claimed by Myanmar.

Source: "A Historic Win for Bangladesh", *The Daily Sun*, 09 July 2014.

The PCA and ITLOS have awarded Bangladesh total 1,18,813 sq km of territorial sea in the Bay of Bengal. Total area gained by Bangladesh from both the verdicts is shown as below:

**Figure-3: Map Showing Maritime Boundary and Area Based on the Verdicts.**



Source: The base map is taken from ETOPO2. This map is for illustrative purpose only.

**4. Bay of Bengal: Source of 'Blue Economy'**

The Bay of Bengal is considered as the largest Marine Ecosystem (LME) among such 64 LMEs of the world.<sup>30</sup> Many economic activities can be launched in

<sup>30</sup> "Concept Paper on Ocean/Blue Economy-Modern Economic Vision", Paper presented by Ministry of Foreign Affairs in International Seminar on *Ocean /Blue Economy*, February 2014, Dhaka.



Bangladesh which is based on the sea under 'Blue Economy'. Economy is the chief determining factor in the present world of power politics. The EEZ can provide substantial contribution to the food supplies, especially the protein supply. Sea weeds are exploited by men for food, animal feed, energy, fertilisers and for chemical and pharmaceuticals purposes. Some probable area where 'Blue Economy' can be explored fields are mentioned below.

#### **4.1 Fisheries, Aquaculture and Eco-system Services**

The Bay of Bengal is the silver mine of Bangladesh. In 2012-13, a quantity of 5,88,988 tones of sea fish was collected from Bangladesh's sea area, which is 17 percent of annual fish collection. Total Hilsha production in 2012-13 was 3,51,223 tons, 72 percent of which came from sea areas. In the same manner, export of fish and fish products during 2012-13 fiscal years was 84,905 tons worth Tk. 43.13 billion, which is 2.01 percent of country's export earnings.<sup>31</sup> In the Bay of Bengal, yearly fish catch is 6 mt, while Bangladesh catches only 0.29 mt. Globally, 350 million jobs are linked to marine fisheries. Marine bacteria are a rich source of potential drugs. In 2011, there were over 36 marine derived drugs in clinical development, including 15 for the treatment of cancer. The Bay of Bengal has a special tropical marine eco-system and an abundance of wetlands, marshes and mangroves which may help increase the productivity of near-shore fish species. The major coastal species like shrimp, tuna, billfish, croakers, snappers, skates and grunts can be sold on commercial basis. Experts said, there are at least 30 varieties of shrimps available in the sea. Besides, there are at least 15 types of crabs; 300 kinds of mollusks and 13 varieties of corals. All these have substantial commercial value.

#### **4.2 Source of Energy**

Experts believe there is a huge reserve of oil and gas under the sea area of Bangladesh. Lifting and transmission to the national grid of gas from the Sangu basin is a glaring example to this effect. Because of financial and technological limitations, proper exploration work could not be undertaken so long to locate and assess reserve of the undersea resources. At present, the proven gas reserve is about 11Tcf. According to USCG and joint Petrobangla report, the possibility of getting 60/70 Tcf gas in Bangladesh is only about 5 percent, possibility of 32 Tcf is about 59 percent and there is a 95 percent possibility of getting 8 Tcf of gas.<sup>32</sup> In that case, energy resources are not enormous in Bangladesh. At the 10<sup>th</sup> World Energy Conference, the delegates also forecasted that 45 percent of the total world oil and gas reserves would come from offshore. Heavy minerals were discovered in the beach sands of the coastal

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<sup>31</sup> Saleh Akram, "Survey of Marine Resources Brooks No Delay", *The Financial Express*, 20 July 2014.

<sup>32</sup> Sharif Hasan, "Judgment at the Hague and Future Prospects", *The Dhaka Tribune*, 18 July 2014.

region of Bangladesh in 1961 which are yet to be extracted. Methane hydrates, a potentially enormous source of hydrocarbons, are now being explored and tapped from the seabed. Manganese nodules are widespread in the ocean depths beyond the continental shelf. These are the most important resources of deep sea deposit. The nodules contain 40 different materials including copper, aluminium, nickel, iron, cobalt and manganese. The most important components are manganese (29 percent), iron (6.3 percent), nickel (1.28 percent), copper (1.07 percent) and cobalt (0.25 percent).<sup>33</sup>

#### **4.3 Maritime Transportation and Shipbuilding**

The Bay of Bengal has been used as a trade route for centuries by several nations of the world. The Greeks, in their sailing manual the *Periplus Maris Erythraei* as early as the 1<sup>st</sup> century A.D., wrote that the route to India from the Red Sea was along the Arabian Sea and along the Bay of Bengal to eastern India.<sup>34</sup> In the 2<sup>nd</sup> century, Ptolemy referred to the voyages from Ganges across the Bay of Bengal to the Strait of Malacca for trade and development.<sup>35</sup> So, the Bay has been an important crossing point for international trade from time immemorial. Today, the Bay still continues to be an important route in trade between South Asia and the South East Asian countries. It can also be said that this important route will flourish further in future.

According to a research by the Bangladesh Ministry of Foreign Affairs, transportation is increasing in the sea day by day. Some 90 percent of overall foreign trade is taking place at the Chittagong and the Mongla ports by ships. Majority of 2500 commercial vessels come to Bangladesh every year from different countries of the world. The number of non-government sea vessels was 26 in 2008, later it increased to 70 due to increasing demand of maritime transportation. A number of shipping agencies have also grown up. It creates big employment opportunities and contributes huge foreign currency to the national economy.

#### **4.4 Source of Eco-Tourism**

The marine and coastal environment constitutes key resources for the important global tourism industry. In 2012, tourism supported 9 percent of global jobs and generated US\$ 1.3 trillion or 6 percent of the world's export earnings.<sup>36</sup> Bangladesh government is also planning to establish a 'Sea Tourism Belt' in around Cox's Bazar, Teknaf, Kutubdia, Moheshkhali, etc. This can attract lots of tourists and

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<sup>33</sup> *Ibid.*

<sup>34</sup> Ashfaque Rahman, "Our wonderful Bay", *The Daily Star*, 13 July 2014.

<sup>35</sup> *Ibid.*

<sup>36</sup> "The foundation of a Blue Economy", Center for American Progress (CAP), available at <http://www.americanprogress.org/issues/green/report>, accessed on 12 August 2014.

earn huge foreign currency. This will also strengthen country's economic condition. Bangladesh, Maldives, India and Sri Lanka are taking a joint initiative for developing sea tourism in this region. Prime Minister Sheikh Hasina has given emphasis on establishing a 'Sea Aquarium' and an academy for 'Tourism and Research' in this area. Describing the Bay of Bengal as Bangladesh's 'third neighbour', she said, "There is no doubt that sea-related subjects like expansion of international trade, use of mineral resources for long-term energy security, proper management of marine fish resources and protecting marine environment and bio-diversity would determine Bangladesh's future development and economic growth."

## 5. Key Challenges

Despite of having enormous resources, Bangladesh does not have well coordinated action plan to explore those. Following are the key challenges to harness maritime resources:

- There is no separate commission/directorate which can plan and coordinate the whole maritime affair among the stake holders;
- Absence of specific 'National Maritime Policy' is another drawback of Bangladesh. Without specific policy, initiatives regarding maritime issues will be disjointed and futile. Specific policy will ensure 'Economy of Effort' and reduce redundancy in accomplishing the task. Also, there is no short term, medium term and long term plans to explore the sea resources;
- Survey of maritime areas also carried out much before. An updated data is essential to go for any exploration;
- There is no modern equipment for fishing in Bangladesh. Still people have to rely on old country boats to go for fishing. These boats do not allow them to go deep inside the sea. In this regard, technical and technological assistance is also absent from concerned authority;
- There is no 'Research Centre' for fisheries established yet in Bangladesh;
- Bangladesh could not attract foreign companies so far bidding probable gas and oil blocks due to dispute in maritime areas. After verdicts, lots of foreign companies are eager to go for fresh bidding. No step has been taken yet to explore the other non-living minerals like metal bearings, nodules, hydrocarbons, etc. There is lack of research facility in Bangladesh to handle with these minerals;
- Maritime area has been expanded in number of times. But it is not possible for the Bangladesh Navy and the Coast Guard to have vigilance to the vast

area with the existing manpower and patrol boats. At present, it is a big challenge for Bangladesh to equip the forces because it requires huge monetary involvement;

- Tourism has remained untapped in Bangladesh, attracting less number of tourists arrival in the country. There is no academy for 'Tourism and Research' in Bangladesh. Tourist spots could not be made lucrative and glaring one. And finally;
- Lack of skilled manpower employment of modern technologies along with is still a big challenge for the country. There is scarce of 'Oceanology Department' in the universities of Bangladesh.

## **6. Conclusion and Recommendations**

In present days, countries are concerned about their sovereignty which is not limited to territorial jurisdiction only, but also extended to include jurisdiction over air, space or sea. The marine resources that Bangladesh possesses are still undiscovered and the verdicts delivered by ITLOS and PCA are the means which allow the country to utilise those resources. Before anything, what Bangladesh needs is to carry out a comprehensive and pragmatic survey of marine resources. That will unveil the vastness of marine resources to the whole nation. It is firmly expected that the government will immediately conduct researches, employing modern technology and knowledge. The experts surfeited that the country should develop skilled manpower, adapt modern technologies and procure necessary equipment immediately.

It is worth to mention again that the oceans provide a substantial portion of the global population with food and livelihoods, means of transportation for 80 percent of global trade, support all life today by generating oxygen, absorbing carbon dioxide, recycling nutrients and regulating global climate and temperature. The emergence and recent evolution of the concept of the 'Blue Economy' in several forums bear testimony to its importance as an alternative economic model for sustainable development that acknowledges country's growing dependency on the oceans and seas. A science-based approach is essential to the development of the 'Blue Economy' commencing with the initial assessment and critically valuating of the blue capital at the country's disposal. This will provide a basis for decision-making and adaptive management. With a view to improving food security, eradicating poverty and delivering shared prosperity, the Ministry of Foreign Affairs of Bangladesh along with the representatives from other Ministries of government, business leaders and international organisations should initiate investment frameworks to facilitate the ocean's enormous potential for renewable energy generation, ports and shipping, fishing, biotech, mangrove and other resources of the sea for the nation's economic emancipation. To derive maximum benefit out of 'Blue Economy', other relevant suggestions are also appended below:

Bangladesh needs to consolidate its maritime gains within the shortest possible time. It should start planning about the resources, prospects and management of maritime resources under the banner of 'Blue Economy'. For that, a coordinated effort and planning is required to utilise the sea resources. There can be a separate commission/directorate with requisite budget that can coordinate the whole affair. A functional national maritime policy will be essential to derive maximum benefit out of newly acquired maritime territories.<sup>37</sup> It ought to make a quick survey to map out how much resources are reserved (both living and non-living) in the sea areas. It has to prepare short-term, medium-term and long-term plans to explore the sea resources. In this regard, Prime Minister also urged upon different concerned ministries and divisions to conduct separate survey and research in both shallow and deep sea areas and procure necessary suitable equipment for that purpose.

Fisheries, aquaculture and eco-system services have to be cultured for harvesting sustainable blue opportunities. Aquaculture is projected to soon surpass capturing of fisheries as the primary provider of such protein. Dependency on sea food has to be increased for primary source of protein as one billion people worldwide fill up their primary protein from the sea. The country has no modern equipment for fishing. In this regard, technical and technological assistance can be shared with coastal countries. A survey needs to be carried out to determine new fishing ground as well as reserve. For that reason, Ministry of Fisheries and Livestock is going to procure survey ship soon.<sup>38</sup> Export of fish and fish products need to be increased in many fold. This will contribute directly to the annual Gross Domestic Product (GDP). The major coastal species like shrimp, tuna, billfish, croakers, snappers, skate and grunts can be sold on commercial basis. These have huge demand in the foreign countries.<sup>39</sup>

Energy sector needs to be explored scientifically and commercially to the extent that it can become a treasure trove of future energy resources. Wherever there is natural gas, there should also be oil in the lower stratum, provided some geological conditions prevail to allow accumulation. Geologists believe that the Bangladeshi territory in the Bay holds the biggest oil and gas prospect<sup>40</sup> since gas and oil is found in the adjacent blocks of India and Myanmar.<sup>41</sup> Therefore, it is expected that there is huge gas and oil deposition in the blocks of Bangladesh. Bangladesh should go for fresh bidding of all its blocks. Incentive package can be offered to attract new bidders. In this regard, Petrobangla can be strengthened to find out ways and means to explore the blocks and reduce dependency on foreign companies. Concophillips,

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<sup>37</sup> "No Preparations to Exploit Huge Opportunity", *The Daily Sun*, 09 July 2014.

<sup>38</sup> Interview with Dr Shelina Afroza, Secretary, Ministry of Fisheries and Livestock, Govt. of People's Republic of Bangladesh.

<sup>39</sup> Kaniz Fatima, "Untapped Seabed Resources", *The Independent*, 20 July 2014.

<sup>40</sup> Nirvik Samudrogupto, "Maritime Security for Energy Security", *Bangladesh Defense Journal*, Vol. 1, No. 43, 2011, pp. 33-35.

<sup>41</sup> *Ibid.*

an America based exploring company already showed its keen interest to explore the blocks.<sup>42</sup> Bangladesh should take venture to explore minerals like limestone, monazite, zircon, chromites, etc. which has immense economic value.<sup>43</sup> Metal bearing deposits can be sold outside which will contribute to a great extent to the economy. Méthane hydrates, a potential source of hydrocarbon, can be explored commercially from the sea bed also.

The container traffic is projected to rise three times by 2030. Coastal country like Bangladesh needless to position itself in terms of facilities and capacities to cater for this growing trade and optimise the benefits. Endeavour has to make to establish more 'Deep Sea Ports' in the coastal area. Venture has been taken to make two 'Deep Sea Port' in Sonadia and Piara of Potuakhali. All these will assist to concretise the Japanese proposal of 'Industrial Growth Belt' (BIG-B) in the Bay of Bengal among Bangladesh, India and Myanmar which was discussed in Prime Minister's recent visit in Tokyo, 2014.

To promote Bangladesh as an attractive tourist destination, joint efforts are required in areas such as upgrading infrastructure, improving air linkage and developing human resources and joint marketing. Bangladesh should take a joint initiative with these countries for developing sea tourism in this region. The country should establish an 'Academy for Tourism and Research' and 'Sea Aquarium' in near future. Bangladesh has the longest beach of the world. It must derive maximum benefit out of it making tourism more attractive.

Naval force and the Coast Guard should be strengthened to raise the level of vigilance in the maritime boundaries. This entails monitor against illegal fishing, smuggling, drug trafficking, piracy, exploration of illegal oil and gas, extraction of minerals, deliberate pollution of maritime environment, etc.<sup>44</sup> The trafficking of small arms, drugs, contraband goods, etc. has entered the list of criminal activities in Bangladesh's maritime waters in recent times. According to the Navy's master plan, it will need to build a well equipped naval force to ensure security in the sea and coastal areas and uphold the country's sovereignty. The plan envisages purchase of naval war ships, vessels, helicopters and equipment within six to eight years.<sup>45</sup> The government has signed an agreement with China under a state-to-state deal to purchase two Ming-class submarines by 2016 to make the Navy a part of a three-dimensional force to

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<sup>42</sup> Interview with Mr. Md. Abu Bakar Siddique, Secretary (Energy and Mineral Resources Division), Ministry of Power, Energy and Mineral Resources, Govt. of People's Republic of Bangladesh.

<sup>43</sup> S. Devare, "A New Energy Frontier: The Bay of Bengal Region", *Institute of Southeast Asian Studies*, Vol. XIX, 2008, p. 205.

<sup>44</sup> Abul Kalam Azad, "Maritime Security of Bangladesh: Facing the Challenge of Non-Traditional Threats", *BISS Journal*, Vol. 30, No. 2, April, 2009, p.131.

<sup>45</sup> Rashid Askari, "Conquests of The Bay: The Herald of a New Maritime Era", *Dhaka Courier*, Vol. 31, No.1, 18 July 2014, pp.14-17.

protect the country's maritime resources and territorial waters.<sup>46</sup> Altogether, 17 naval officers have been trained to operate submarines. The Navy has acquired land on Kutubdia Island in southwest Cox's Bazar to set up a submarine base. The government has already ordered buying of two modern helicopters for Bangladesh Air Force to carry out Search and Rescue Operations (SAR) and other utility missions in the Bay of Bengal. The Directorate of Survey is responsible for preparation, preservation and distribution of records of land, water and aerial boundaries. The Bangladesh Navy, the Coast Guard and concerned academic and research organisations should extend full cooperation in this regard.

Procurement and utilisation of untapped marine resources will not be possible without human resource development at the national level. Therefore, in order to utilise sea resources for the economic development of the country, higher education and better research facilities are essential. The Institute of Marine Sciences and Fisheries at the Chittagong University has been generating efficient manpower over the years. They are now manning the marine affairs departments at the Khulna University, the Noakhali Science and Technology University and the Sylhet Agriculture University. These institutions should now be further strengthened with increased fund allocation for research. Bangladesh should also try to build a sea-based scientist community and enhance the capacity of our existing workforce. Example of Thailand can be cited in this context. The country has excelled in sea management and exploitation of marine resources. It has joined hands with ten other South-East Asian countries to set up the 'South East Asian Fisheries Development Centre' where people from other member-countries are imparted training. The first 'National oceanographic Research Institute' is being established at Ramu to create marine scientific community for research.

Finally, the importance of having a satellite for maritime survey and research is of utmost requirement. Bangladesh should have plan to procure/install the country's own satellite for maritime survey along with other expedition. Prime Minister Sheikh Hasina also stressed regarding the issue and hoped that 'Bangabandhu Satellite' will be launched by 2017. If all these initiatives can be implemented successfully, Bangladesh could harness its maritime resources in the years to come.

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<sup>46</sup> Deepak Acharjee, "Navy Seeks Tk 14,000 cr to Strengthen Force", *The Independent*, 09 September 2014.