The Legal and Scientific Assessment of Bangladesh’s Baseline in the Context of Article 76 of the United Nations Convention on the Law of the Sea

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DISCLAIMER

The views expressed herein are those of the author and do not necessarily reflect the views of the Government of the People’s Republic of Bangladesh, the United Nations, the Nippon Foundation of Japan, or the National University of Ireland in Galway.
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# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Introduction</strong></td>
<td>1</td>
</tr>
<tr>
<td><strong>Chapter One: Introducing Bangladesh</strong></td>
<td></td>
</tr>
<tr>
<td>1.1 Brief Political History of Bangladesh</td>
<td>3</td>
</tr>
<tr>
<td>1.2 Geographical Features</td>
<td>10</td>
</tr>
<tr>
<td>1.3 Legal System in Bangladesh</td>
<td>13</td>
</tr>
<tr>
<td>**Chapter Two: Straight Baseline System in International Law of the Sea</td>
<td></td>
</tr>
<tr>
<td>2.1 Genesis of the Issue: The <em>Anglo-Norwegian Fisheries</em> Case (1951)</td>
<td>16</td>
</tr>
<tr>
<td>2.1.1 Course of Litigation</td>
<td>17</td>
</tr>
<tr>
<td>2.1.2 Court’s View</td>
<td></td>
</tr>
<tr>
<td>2.2 The Geneva Convention on the Territorial Sea and Contiguous Zone</td>
<td>22</td>
</tr>
<tr>
<td>(1958)</td>
<td></td>
</tr>
<tr>
<td>2.2.a Analysis of the Rules on Straight Baseline in the Geneva Convention 1958</td>
<td>23</td>
</tr>
<tr>
<td>2.2.b Limitations of Article 4</td>
<td>26</td>
</tr>
<tr>
<td>2.4.a Article 7 of the Law of the Sea Convention 1982</td>
<td>28</td>
</tr>
<tr>
<td>2.4.b Analysis of Article 7</td>
<td>30</td>
</tr>
<tr>
<td>2.5 State Practices and Some Common Deviations</td>
<td>32</td>
</tr>
<tr>
<td>2.6 Conclusion</td>
<td></td>
</tr>
</tbody>
</table>
Chapter Three: Bangladesh’s Straight Baselines: Geographical, Economic, and Legal Considerations

3.1.1 River System of Bangladesh: An Important Geographical Factor 37

3.1.2 The Bengal Delta 40

3.1.3 General Features of Coastal Region of Bangladesh 42

3.1.4 Coastal Erosion and Accretion 53

3.2.1 Legal Background of Bangladesh’s Straight Baselines 57

3.2.2 Bangladesh’s Proposals in the Third United Nations Conference on the Law of the Sea in respect of Drawing Straight Baselines Along Deltaic Coast. 59

3.2.3 Analysis of Bangladesh’s Proposals. 63

3.2.4 Neighbouring Countries Responses. 68

3.2.5 Article 7(2) and Bangladesh’s Straight Baselines. 71

3.2.6 Conclusion 77

Chapter Four: Article 76 and Bangladesh’s Straight Baselines

4.1 The continental shelf according to article 76 of the LOSC 79

4.2 The Geographical Characteristics of Bangladesh’s Continental Shelf 89

4.3 Significance of Bangladesh’s Baselines in Delineating the Outer Limit of its Continental Shelf 94

4.4 Conclusion 96

Chapter Five: Final Comments 97

Annex I: Territorial Water and Maritime Zones Act 1974 100

Annex II: Notification No. LT -1/3/74 of the Ministry of Foreign Affairs, Dacca, of 13 April 1974 104

Bibliography 105
**List of Figures**

| Figure 1.1 | Geographical map of Bangladesh | 11 |
| Figure 2.1 | Caribbean coast of Colombia | 32 |
| Figure 2.2 | Common deviations | 33 |
| Figure 2.3 | Straight baselines drawn along north-west coast of Iceland | 34 |
| Figure 2.4 | Straight baseline across the Gulf of Martaban | 35 |
| Figure 3.1 | Rivers of Bangladesh | 39 |
| Figure 3.2 | Bengal delta | 41 |
| Figure 3.3 | St. Martin’s Island | 43 |
| Figure 3.4 | Coastline of Cox’s Bazar | 44 |
| Figure 3.5 | Coastline of Chittagong | 45 |
| Figure 3.6 | Coastline of Noakhali | 46 |
| Figure 3.7 | Coastline of Bhola | 47 |
| Figure 3.8 | Coastline of Patuakhali | 48 |
| Figure 3.9 | Coastline of Barguna | 49 |
| Figure 3.10 | Coastline of Bagerhat | 50 |
| Figure 3.11 | Coastline of Khulna | 51 |
| Figure 3.12 | Erosion and accretion on the Island of Bhola between 1963-1982 | 55 |
| Figure 3.13 | Straight baselines of Bangladesh | 59 |
| Figure 3.14 | Different stages of straight baselines in a retreating deltaic coast | 72 |
| Figure 3.15 | Bangladesh’s straight baselines | 73 |
| Figure 3.16 | Satellite image of Bangladesh’s coastline | 75 |
| Figure 4.1 | Legal continental shelf of a coastal State according to article 76 (1) when the outer edge of the continental margin does not extend beyond 200 nm from the baseline. | 80 |
| Figure 4.2 | Illustration of sediment thickness formula | 82 |
| Figure 4.3 | Illustration of the distance formula | 83 |
| Figure 4.4 | Geographical understanding of continental margin | 84 |
| Figure 4.5 | Constraint ‘A’: the maximum permissible outer limit of the continental shelf is 350 nm from the baseline | 85 |
| Figure 4.6 | Constraint ‘B’: the maximum permissible outer limit of the continental shelf is 100 nm from the 2500m isobath line | 86 |
| Figure 4.7 | Delineation of outer limit of the continental shelf | 87 |
| Figure 4.8 | The Bengal Fan | 89 |
| Figure 4.9 | Map of Bay of Bengal with adjacent land masses | 90 |
| Figure 4.10 | Physiographic diagram of the Bay of Bengal | 91 |
| Figure 4.11 | Bathymetry and topography of the Bay of Bengal | 92 |
| Figure 4.12 | Equidistant lines drawn in the coastal sea of Bangladesh to delimit its maritime zones | 95 |

* Figures are produced by author unless otherwise stated
List of Tables

Table 1  Bangladesh by Coastal District Households & population  52
Table 2  Distribution of Major Livelihood Groups  52
Table 3  Land Area in the Meghna Estuary  54
Table 4  Change Detection Study for the Period of 1960-1984  54
Table 5  Comparative Statement of Erosion and Accretion  56
Table 6  Areas of Mainland and Char/Islands and Number of Char/Islands in 1973 and 1987  66
Abstract

Baselines are the lines from which the outer limits of all other maritime zones are measured. Though delineation of baselines is a unilateral act, it has international aspects too, as it has significant impact on delimitation of maritime zones. Straight baseline issue first gets its international recognition in the Anglo-Norwegian Fisheries Case 1951, where the International Court of Justice through its verdict approves the validity of adopting straight baseline system along certain coasts. Article 7 (2) of the United Nations Convention on the Law of the Sea enunciates the rules to be followed while adopting straight baselines along some specific coasts.

Bangladesh declared its straight baselines through a gazette notification of Ministry of Foreign Affairs of People’s Republic of Bangladesh in 1974, just before the commencement of the United Nations Convention on the Law of the Sea. All the basepoints declared were taken on depth criteria with a hope that Bangladesh would be able to obtain supports from other States on inserting a provision in the convention that allows the criteria. Considering the unique characteristics of Bangladesh’s coastline a provision has been included, but that provision does not support taking basepoints on depth criteria.

Article 76 of the Law of the Sea Convention deals with the definition and other issues regarding delineation of outer limit of the legal continental shelf of a coastal State; this article permits a coastal State to claim its continental shelf to a certain distance from its baselines. But a coastal State has other option too to delineate the outer limit of the continental shelf. Bangladesh may delineate the outer limit of its continental shelf implying the alternate option that does not involve the baselines.
Introduction

The oceans which cover about 71 percent of earth surfaces provide the human race with food, serve as an important way for transportation and world commerce, and have immense sources of usable energy and other nonliving resources. Earlier traditional use of marine spaces was mainly focussed on fisheries, transportation and communication. But because of increased pressure of growing population, particularly in coastal areas, and invention of contemporary sophisticate technology for extracting marine resources the oceans turned into most valuable possession to the coastal states.

For several hundred years the customary international law of the sea was dominated by the concept of the freedom of the seas. At one time the oceans of the world, or great segments thereof, were claimed by a limited number states\(^1\) for their exclusive use\(^2\), but later, due to increased concern for the more general interest of the whole community of states the larger expanses of the sea were freed ultimately for relatively unhampered use of all states\(^3\). However, the coastal states have never surrendered their claim for exclusive authority over sea areas adjacent to their land territory.

By the end of 18\(^{th}\) century it was widely accepted that coastal states had sovereignty over their territorial sea. The maximum breadth of the territorial sea was generally considered to be three miles-the distance that shore-based cannon could reach and that a coastal state therefore controls. After the end of Second World War coastal states maritime claims increased to a great extent. In response to those increasing maritime claims the United Nations (UN) convened thrice to codify the rules of customary international law applicable to the seas, and finally in 1982 it succeeded to adopt a convention on the law

\(^1\) According to a Papal Bull of May 4, 1493, an early division of the oceans was agreed upon between Spain and Portugal; the Portuguese area was defined as lying between approximately 46°10´W of Greenwich and 134°E of Greenwich. The rest was under control of Spain.

\(^2\) In exclusive claimed areas the claimant state is competent to prescribe or to apply its authority to all persons or activities, irrespective of nationality of those persons.

\(^3\) Fulton, Sovereignty of the Sea 537-75 (1911); Smith 5-6; Colombos 44-56; Potter, The Freedom of the Seas.
of the sea. This convention clearly defined four maritime boundaries over which the coastal states would enjoy different degrees of authority.

All these developments are closely connected with determination of baselines as it is the first step towards determining the maritime boundaries. The baseline is the line from which the outer limits of the coastal State’s maritime boundaries are measured. So it determines not only the extent of maritime boundaries but also the shapes. The baselines of a coastal state largely depend on its coastal geographic features, and considering the diversity and complexity of different geographic features the aforesaid convention formulated two types of baselines, normal baseline and straight baselines.

This paper will firstly discuss the evolution of rules regarding determination of baselines in international law, and in doing so it will examine and explain different judgments made by the International Court of Justice as well as UN’s conventions on the law of the sea. Secondly, it will discuss different aspects of existing Bangladesh’s baselines considering geographical, economic, and legal issues, and will analyse issues in light of States practices. Finally it will discuss the significance of baselines in the context of article 76 of the law of the sea convention.
Chapter One

Introducing Bangladesh

1. 1 Brief Political History of Bangladesh

Bangladesh officially came into existence in 1971, after a war of independence of nine months. Though it is a modern state, her history can be traced back to about 1000 BC. Due to scarcity of authentic sources, it is difficult to reconstruct the history of Bengal in the pre-Muslim period. For this period very scanty references in the Vedic, Epic and Puranic literature as well as on the available archaeological evidence are the main sources.

Ancient Period:

The ancient Bengal was divided in different janapadas, supposedly named after the groups of people lived in those places. India felt Aryan influence on its north-western parts in the middle of the second millennium BC and it took a long time for the Aryan to reach Bengal; by that time Aryan influence became feeble. But, even then, Aryan settlement profoundly affected Bengal culture.

The Mauryan Empire (ca. 320-180 B.C.) was the first great indigenous empire that spread over most of present-day India, Pakistan, and Bangladesh. During the time of Mauryan Empire, Buddhism came to Bengal. After the decline of Mouryan Empire the eastern portion of Bengal became the kingdom of Samatata; although politically independent, it was a tributary state of the Indian Gupta Empire (A.D. ca. 319-ca. 540). The history of Bengal from the fall of the Mauryas (2nd century BC) to the rise of the Guptas (4th century AD) is obscure.

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4 Janapad is a Bengali word means human settlement. The most famous janapadas in ancient Bengal were Vanga, Pundra, Radha, Samatata, Harikela, and Gauda.
Towards the close of the sixth century AD the kingdom of Gauda emerged in parts of western and northern Bengal under the later Guptas. By the beginning of the seventh century Shashanka captured power in Gauda. In the century following the death of Shashanka, Bengal saw very little of stable government until the rise of Gopala. The dynasty founded by Gopala in the middle of the 8th century AD, ruled Bengal for about four hundred years through many vicissitudes, and it is beyond doubt that the rule of the Palas formed a glorious chapter in the history of ancient Bengal. During the period of decline of the Palas, towards the end of the 12th century AD, Vijayasena rose into prominence and gradually grabbed the power. The Senas held sway over Bengal for more than a century (c1097-1223 AD). The invasion of Muhammad Bakhtiyar Khalji put an end to Sena rule in parts of western and northern Bengal (in 1204 AD).

**Bangladesh under Muslim Rule (1204-1757):**

The process of Muslim expansion in Bengal began with the military exploits of Bakhtiyar Khalji. He established a kind of clannish feudalism in his territory. After Bakhtiyar’s death in 1206 the Muslim territories extended most under Shamsuddin Firuz Shah (1301-1322). The dynasty founded by Iliyas Shah ruled Bengal for nearly one hundred and fifty years. The Muslim administration was given a distinct shape in this period. The whole territory, which was hitherto known not by any unitary name but by its different regional names such as Vanga, Gauda etc, came to be designated as Bangalah.

Mughal rule was established in Bengal after the defeat of the Karrani Afghan Sultan Daud Khan in the battle of Rajmahal, 12 July 1576 at the hands of Khan Jahan. With Daud Khan's defeat ended the Sultanate rule in Bengal, but this in no way meant the end of Bengali resistance to the imperial power. After Jahangir's accession to the power, Islam Khan took up the task of subjugating the remnant resisting elements. For political reason, he transferred the capital from Rajmahal to Dhaka.

Subahdar Shaista Khan ruled Bengal for twenty-two years from 1664 to 1688. Shaista Kahn's greatest fame in Bengal lay in his conquest of Chittagong. The Magh king of

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5 Five generations of Senas namely Vijayasena, Vallalasena, Laksmanasena, Vishvarupasena, and Keshavasena ruled during this period.

6 Among those who resisted the Mughals, some bhuiyans, known as Baro-Bhuiyans (twelve territorial land holders) stand prominent.
Arakan with the aid of Portuguese pirates attacked the Mughal province of Bengal whenever he found an opportunity. Moreover, the Portuguese pirates used to attack the coastal regions, looted property and enslaved men, women and children. The Portuguese piracy was a regular menace. So Shaista Khan's policy was to make the area safe by wresting Chittagong from the king of Arakan and also to save the coastal area from the menace of the pirates and making it a part of the empire. Soon he conquered Chittagong and made the whole region free from the Arakanese raids.

Nawab Sirajuddaula, the last independent Nawab of Bengal, was only 23 when he ascended the throne of Bengal. Soon he found himself surrounded by enemies, and the greatest enemy was the English East India Company, which was quite openly ignoring the Nawab. On 23 June 1957, Shirajuddaula faced a heinous defeat by the Company due to treachery of his own people. The Mughal sovereignty was virtually over with the event of Palashi though the English took a decade more to assert real power.

**Bangladesh under British Rule (1757-1947):**

The discovery of sea-lanes to the eastern waters brought the western maritime people into direct contact with Bengal. It was predominantly an exporting country from ancient times; but curiously, its export trade was, for cultural reasons mainly, conducted by mostly foreigners. Being encouraged by the Mughal government the Portuguese, the Dutch, the French, the English and others came by sea to participate in the Bengal export trade. In the competition among themselves in lifting Bengal goods for foreign markets, the English East India Company had a decided advantage over all others. While all other companies were required to pay 2.5 percent or more customs duties to government, the English were exempted from paying any duty at all.

The rise of British India in the 19th century was only the blown up form of the company's Bengal kingdom. The expansion led to the absorption of Bengal into the imperial milieu.

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7 The battle was fought between Nawab Sirajuddaula and the East India Company. It lasted for about eight hours and the Nawab was defeated by the company because of the conspiracy of his leading General Mir Zafar. This defeat had a far reaching effect. It not only laid the foundation of the British rule in Bengal but also acted as the initiator towards establishments of the British empire in Indian Subcontinent.

8 Among the Europeans the Portuguese was the first to come to Bengal. The arrival of Vasco da Gama at Calicut in August 1498 was followed by the arrival of the Portuguese in Bengal. This was the result of Portuguese maneuver to bypass the Venetians and Arab merchants in quest of spices from Asia.
Even as a province, Bengal lost its pre-eminence in that unlike Madras and Bombay provinces, Bengal was not endowed with an autonomous Governor-in-Council.

Of the measures taken by the administration of Lord Curzon (1899-1905), the most tumultuous was the partition of Bengal (1905). There are, of course, critics of Divide and Rule theory. Whatever may be the purpose of the action it did not receive popular support. Faced with insurmountable nationalist opposition Bengal was reunified under the new system of Governor-in-Council in 1912. Bengal's partition first and then its annulment under pressure had embittered the Hindu-Muslim relations beyond measure. Most educated Muslims of East Bengal had supported the partition.

The Muslim League, which had small influence in Bengal until 1940s, became soon the sole spokesman. It is significant that the Lahore Resolution of 1940, which set out a new dream for the Muslims, was proposed by the premier of Bengal. The election result of 1946, in which the League won all seats reserved for Muslims except two, proved beyond doubt that the Muslims of Bengal were set for Pakistan. But the Congress, which represented predominantly the Hindus, was not initially prepared to accept the concept. The result was continual communal tension and occasional riots that culminated in the great Calcutta killing (August 15-20, 1946) followed by communal riots in Noakhali and Bihar. All these developments had sealed the fate of united Bengal. The Hindu Mahashaba, many leading members of which were activists in the agitations against partition of Bengal in 1905, had first proposed and started agitation for the partition of Bengal on communal lines. The idea under the circumstance was finally accepted by the Congress and the League and accordingly Bengal got partitioned and East Bengal (now Bangladesh) got independence from Britain (14 August 1947) within the framework of Pakistan.

**Pakistan Period (1947-1971)**

The beginning of Pakistan period observed the historic language movement that started in 1948 and ended after brutal killing of brave students in 21 February 1952, which day is now observed as International Mother Language Day. The first election for East Bengal Provincial Assembly was held in 1954. The United Front won 215 out of 237 Muslim
seats in the election and got the opportunity to form the provincial government. But the United Front government was dismissed by the central government and Governor's rule was imposed in the province. In 1955 the Awami Muslim League, the main political party in East Pakistan, adopted the path of secularism and non-communalism, erased the word 'Muslim' from its name.

In October 1958 Martial law was imposed; the central and provincial governments were dismissed, the national and provincial legislative assemblies were dissolved, all political parties were banned and fundamental rights were suspended. Expelling Iskander Mirza, Ayub Khan seized all powers on 27 October. Election of basic democrats took place throughout the country on 11 January 1960. Ayub Khan was elected President for five years with the powers to frame a constitution through a referendum held under the Order on 14 February 1960. The Constitution was declared on 1 March 1962 and it was made effective from 8 June; on the same day the Martial Law was lifted.

Sheikh Mujibur Rahman was nominated the General Secretary of East Pakistan Awami League in December 1963. Sheikh Mujibur Rahman raised the 6-points charter of demands for autonomy of East Pakistan at a convention of opposition leaders in Lahore on 5 and 6 February 1966, but it was not well accepted by the central government. To detach Sheikh Mujib and the Awami League from the general masses and to create divisions within the opposition alliance, the government discovered a conspiracy, dubbed as Agartala Conspiracy, on 6 January 1968; Sheikh Mujibur Rahman and 29 others were arrested on charge of involvement in the conspiracy.

In January 1969 the East Pakistan Chhatra League and the East Pakistan Chhatra Union jointly formed a Student Action Committee to raise movement against the conspiracy and they announced the 11-point demand as part of the movement. The 11-points received massive public support in East Pakistan. The government withdrew the Agartala conspiracy case on 22 February 1969 and was forced to release Sheikh Mujibur Rahman.

Meanwhile, seeing the intense situation Ayub Khan handed over power to the then Army Chief, General Mohammad Yahya Khan, on 24 March 1969 and Yahya Khan imposed Martial Law in the country on 25 March. Eight months later Yahya Khan declared 5 October 1970 as the National Assembly election’s date. In this election the Awami
League got 167 out of 169 seats in East Pakistan and won 288 out of 300 in the East Pakistan Provincial Assembly. Yahya Khan summoned the session of the National Assembly on 25 March through an announcement on 6 March. On 7 March at Dhaka Racecourse Maidan, Sheikh Mujibur Rahman put forward four preconditions for joining the session of the National Assembly on 25 March. When all preparations were complete, the Pakistani Army carried out genocide in Dhaka on the night of 25 March. In protest against these brutal killings, the liberation war of Bangladesh was started. The armed liberation war that started on 26 March 1971 continued for the following 9 months.

**Bangladesh Period (1971-2005)**

On 10 April 1971, the leaders of Awami League (AL) formed the government-in-exile headed by Sheikh Mujibur Rahman as the President. With the surrender of the Pakistani army at the Dhaka Racecourse Maidan on 16 December 1971 ended the War of Liberation. Sheikh Mujibur Rahman returned to Bangladesh on 10 January 1972, after being freed from Pakistani prison. The very next day he issued a Provisional Constitutional Order to initiate parliamentary system and to introduce cabinet form of government. The constitution of 1972 was framed taking nationalism, socialism, democracy, and secularism as the state principles. Parliamentary elections were held for the first time under the new constitution on 7 March 1973. In this election, out of 300 seats Awami League won 292.

On 24 February 1975, Sheikh Mujib dissolved all political parties to form a single national party called Bangladesh Krishak Sramik Awami League (BAKSAL). Before Sheikh Mujib could fully implement his new ideas he was assassinated along with his family members and some of his colleagues by a group of ambitious junior military officers on 15 August 1975.

Ziaur Rahman emerged as a powerful military leader after soldier uprising of 7 November 1975. On 28 November 1976 Ziaur Rahman assumed the charge of the Chief Martial Law Administrator. He amended the constitution through a Martial Law Ordinance promulgated on 21 April 1977 and held the post of the President. Within a year, Zia started the process of launching a party, named Bangladesh National Party. Quite a few coup attempts were made during Zia's rule of five and a half years. In one of
such a coup Zia was killed in Chittagong on 30 May 1981. After Zia's assassination, Vice-President Abdus Sattar became the Acting President. Later on he was elected President. On 24 March 1982 Ershad declared martial law, suspended the constitution, dismissed Sattar and his cabinet, dissolved the parliament and became the Chief Martial Law Administrator. The chiefs of the Navy and Air Force were appointed as his deputies. Ershad ruled the country under martial law for the next four years. Ershad formed a political party in 1986 named Jatiya Party. The movement against Ershad started in 1983, gained momentum in 1987, and became severe in 1990 with the participation of all student organisations. Under the circumstances, Ershad resigned on 6 December 1990, and the power was transferred to Chief Justice Shahabuddin Ahmed. A neutral Caretaker Government was formed under Justice Shahabuddin Ahmed and thus for the first time a government was changed through popular uprising. Within ninety days Shahabuddin's neutral caretaker government held a free, fair parliamentary election in which BNP won 144 seats, followed by the Awami League 88, Jatiya Party 35.

After the 1991 election, BNP under Begum Khaleda Zia formed the government with the support of Jamaat. Both BNP and the Awami League worked together in parliament and a constitutional amendment (twelfth amendment) was passed reintroducing a parliamentary form of government. In December 1994, the opposition parties led by the Awami League resigned from parliament. The movement under Awami League demanding election under a caretaker government got momentum. Khaleda Zia resigned and handed over power to a caretaker government headed by former Chief Justice Habibur Rahman. The seventh parliamentary elections were held in 1996 and Awami League won 146 seats, followed by the BNP with 116, Jatiya Party with 32.

On 23 June 1996 Awami League formed the government under the leadership of Sheikh Hasina. Parliament elected Justice Shahabuddin Ahmed president of Bangladesh (9 October 1996). Sheikh Hasina articulated the need for national consensus and took initiative to form an all-party government. BNP refused, but two other parties, Jatiya Party and the JSD (Rab), joined the government. At the end of their term the Awami League government, under the provision of the constitution, handed over power to the caretaker government in the middle of July 2001. The caretaker government headed by former Chief Justice Latifur Rahman held the election to form the 8th National
Assembly. In the election held on 1 October 2001, the BNP led Four Party Alliance got 214 seats out of 300. With more than two-thirds majority in parliament the Four Party Alliance under Khaleda Zia formed the government on 10 October 2001.

1.2 Geographical Features

Bangladesh, a South Asian country, lies between 20°34’ to 26°38’ north latitude and 88°01’ to 92°41’ east longitude. Its maximum extension is about 440 km in E-W direction and 760 km in N-S direction. The total length of the land border is about 4,246 km, of which 93.9% is shared with India and the rest 6% with Myanmar. Bangladesh is a humid low-lying alluvial region, composed mainly of the great combined delta of the Ganges-Brahmaputra-Meghna rivers. It is one of the largest deltas in the world. The monotony of flatness has been relieved inland by two elevated tracts – the Madhupur and the Barind Tracts, and on the northeast and southeast by rows of hills. Some 75% of the land is less than 3m above mean sea level (MSL) and vulnerable to floods and cyclones. The maximum elevation is 1,280m above MSL at Saichal Range in Rangamati district. Tajingdong, locally called Bijoy, is the highest peak.

Bangladesh has a subtropical monsoon climate characterized by wide seasonal variations in rainfall, moderately warm temperatures, and high humidity. Regional climatic differences in this flat country are minor. Three seasons are generally recognized: a hot, humid summer from March to June; a cool, rainy monsoon season from June to October; and a cool, dry winter from October to March. In general, maximum summer temperatures range between 32°C and 38°C. April is the warmest month in most parts of the country. January is the coldest month, when the average temperature for most of the country is 10°C. It receives an average annual rainfall of 80 in. (203 cm), with most falling during the summer monsoon period. The low-lying delta region is subject to severe flooding from monsoon rains, cyclones, and tidal waves that bring major crop damage and high loss of life.

In Bangladesh total rivers including tributaries and distributaries are about 700 under three main river systems: Ganges-Padma River System, Brahmaputra-Jamuna River System, and Surma-Meghna River System. Rivers of the southeastern hilly region are
considered as the Chittagong Region River System. Among them principal rivers are: Ganges, Padma, Brahmaputra, Jamuna, Surma, Kushiyara, Meghna, Karnafuli, Old Brahmaputra, Arial Khan, Buriganga, Shitalakshya, Tista, Atrai, Gorai, Madhumati, Kobadak, Rupsa-Pashur, Feni.

The only exceptions to Bangladesh's low elevations are the Chittagong Hills in the southeast, the Low Hills of Sylhet in the northeast, and highlands in the north and northwest. The Chittagong Hills constitute the only significant hill system in the country.

Fig: 1.1. Geographical map of Bangladesh (Source: www.lib.utexas.edu/maps)

and, in effect, are the western fringe of the North-South mountain ranges of Burma and eastern India. The Chittagong Hills rise steeply to narrow ridge lines, generally not wider
than 36 meters, 600 to 900 meters above sea level. Fertile valleys lie between the hill lines, which generally run north-south. West of the Chittagong Hills is a broad plain, cut by rivers draining into the Bay of Bengal, which rises to a final chain of low coastal hills, mostly below 200 meters, that attain a maximum elevation of 350 meters.

About 67 percent of Bangladesh's non-urban land is arable. Permanent crops cover only 2 percent, meadows and pastures cover 4 percent, and forests and woodland cover about 16 percent. The country produces large quantities of quality timber, bamboo, and sugarcane. Bamboo grows in almost all areas, but high-quality timber grows mostly in the highland valleys. Rubber planting in the hilly regions of the country was undertaken in the 1980s, and rubber extraction had started by the end of the decade. A variety of wild animals are found in the forest areas, such as in the Sundarbans on the southwest coast, which is the home of the world famous Royal Bengal Tiger. The alluvial soils in the Bangladesh Plain are generally fertile and are enriched with heavy silt deposits carried downstream during the rainy season.

Bangladesh is endowed with plenty of surface water and ground water resources. Surface water inflows of the country vary from a maximum of about 140,000 cusec in August to a minimum of about 7,000 cusec in February. The alluvial aquifer systems of Bangladesh are some of the most productive groundwater reservoirs. Groundwater in Bangladesh occurs at a very shallow depth where the recent river-borne sediments form prolific aquifers in the floodplains. In the higher terraces, the Barind and Madhupur tracts, the Pleistocene Dupi Tila sands act as aquifers. In the hilly areas, the Pliocene Tipam sands serve as aquifers. The groundwater table over most of Bangladesh lies very close to the surface and fluctuates with the annual recharge discharge conditions.

**Bangladesh at a glimpse:**

<table>
<thead>
<tr>
<th>Location:</th>
<th>Southern Asia, bordering the Bay of Bengal, between Burma and India</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geographic Coordinates:</td>
<td>24° N, 90° E</td>
</tr>
<tr>
<td>Area : total:</td>
<td>144,570 sq km</td>
</tr>
<tr>
<td>Land:</td>
<td>133,910 sq km</td>
</tr>
<tr>
<td>Water:</td>
<td>10,090 sq km</td>
</tr>
</tbody>
</table>
Land Boundaries: total: 4,246 km
Border countries: Burma 193 km, India 4,053 km
Coastline: 580 km
Maritime Claims: contiguous zone: 18 NM
Continental shelf: up to the outer limits of the continental margin
Exclusive economic zone: 200 NM
Territorial sea: 12 NM
Climate: tropical; mild winter (October to March); hot, humid summer (March to June); humid, warm rainy monsoon (June to October)
Terrain: mostly flat alluvial plain; hilly in southeast
Highest point: Tajingdong
Natural Resources: natural gas, arable land, timber, coal
Land Use: arable land: 67%
Irrigated Land: 38,440 sq km (1998 est.)
Natural Hazards: Droughts, cyclones; much of the country routinely inundated during the summer monsoon season

1.4 Legal System in Bangladesh

The legal system in Bangladesh is based on English Common Law. After the emergence of Bangladesh in 1971 initially there was no change of earlier laws and the judicial system. But when the Constitution of Bangladesh came into force, on 16 December 1972, the Supreme Court of Bangladesh with two divisions, the High Court Division

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9 The common law system basically originated from the adversarial system in historical England from judicial decisions that were based in traditions, customs and precedents. The root principal of common law is: “Do naught unto others as you would not have done unto you”. Essentially, all countries those were colonised at some time by the Britain use common law. The main alternative to the common law system is the civil law system. The opposition between civil law and common law legal system has become increasingly blurred with the importance of jurisprudence in civil law countries and the growing importance of statute law and codes in common law countries.

10 Bangladesh first adopted a ad hoc constitution under the Proclamation of Independence Order of 10 April 1971, which was replaced by the Provisional Constitution of Bangladesh Order 1972. The present constitution was adopted by the Constituent assembly on 04 November 1972, and it came into force on 16 December 1972. The Constitution is comprises of eleven parts and four schedules having 153 articles. So
and the Appellate Division, came into being. As the apex court the high court division\textsuperscript{11} has been vested with the power to hear appeals and revisions from subordinate courts, and also to issue orders and directives in the nature of writs to enforce fundamental rights and to grant other relieves available under the writ jurisdiction.

The appellate division is vested with power to hear appeals from the decisions of the high court division or from any other body under any statute. The high court division has also powers of supervision and control of the subordinate courts and tribunals. The Supreme Court is a court of record and can punish any one for its contempt or contempt of the courts subordinate to it. The laws declared by the appellate division are binding on the high court division and law declared by either division is binding on all subordinate courts. The high court division may declare any law inconsistent with the fundamental rights as null and void. The President of the republic controls the judicial officers of the subordinate courts in consultation with the Supreme Court.

Though the legal system of Bangladesh is basically a common law system but the Supreme Court can not only interpret laws made by the Jatiya Sangsad\textsuperscript{12} but also declare the same null and void and enforce fundamental rights of the citizens. Most of the laws of Bangladesh are statutory laws enacted by the legislature and interpreted by the higher courts. The procedural laws provide for an adversarial system of litigation in which prosecution has to prove the guilt of the accused who has no burden save in some exceptional cases, and the accused is presumed innocent till found guilty after trial, whereas in a civil case the burden is divided between the litigating parties. Moreover, there is a separation of powers amongst the legislature, executive and judiciary. The Supreme Court is not only independent of the other organs, but also acts as the guardian of the Constitution. Though the subordinate judiciary is independent in exercising of

\footnotesize{far the Constitution has gone through fourteen amendments; the last amendments was adopted on 16 May 2004.}

\footnotesize{\textsuperscript{11} Historically High Court originated from the High Courts Act 1861, which provided for one High Court at each province of British India. A High Court was established in Dhaka after the partition of India (1947) under the Pakistan (Provisional Constitution) Order 1947.}

\footnotesize{\textsuperscript{12} Jatiya Sangsad, the Parliament of Bangladesh, consists of 300 members elected through public vote for five years and 45 members, reserved for women, selected by the elected members. The term of Sangsad can be extended for a maximum period of one year in a state of war. Speaker is the chief executive of the Sangsad. Leader of the Sangsad, who gets the confidence of the majority of the members, is appointed as the Chief Government Executive or Prime Minister. Bangla is the language of the Sangsad.}
judicial power, the same is under eclipse due to the absence of separation of the lower judiciary from the executive. Consecutive governments committed themselves to separation, but as yet no action has been taken at the ground level. The Sangsad can enact laws, but the same cannot be inconsistent with the provisions of the Constitution, which include a number of fundamental rights. Thus the legislative power of the Bangladesh Jatiya Sangsad is not unlimited like that of the British parliament which is said to have power to make any law.

The basic law of Bangladesh is the Constitution of the People's Republic of Bangladesh, 1972, as amended from time to time. All laws of the country are subordinate laws made by the elected Sangsad conforming to the tenets of the Constitution. The laws enacted by the legislature and now in operation regulate almost all spheres of life. Ordinarily executive authorities and statutory corporations cannot make any law, but can make by-laws to the extent authorized by the legislature. Such subordinate legislation is known as rules or regulations. Important laws of the country may be classified under some broad heads such as land and property laws, personal laws, commercial laws, labour and industrial laws, election laws, law of crimes, service laws, fiscal laws, press laws and laws relating to the remedies.

The Attorney General is the principal law officer of the government. He is also leader of the bar and ex-officio Chairman of the Bangladesh Bar Council. He is assisted by the Additional Attorney General, Deputy Attorney Generals and Assistant Attorney Generals. They represent the state in the Supreme Court and conduct cases at courts on behalf of the State. The Government Pleader is the principal law officer of the government in the district and he is assisted by the Additional and Assistant Government Pleaders. They represent the state in the subordinate civil courts in the district and conduct cases in those courts on behalf of the state. Similarly the Public Prosecutor is another principal law officer of the government in the district in criminal matters. He is assisted by the Assistant Public Prosecutors. They conduct prosecution cases on behalf of the State in the courts of sessions; sessions level courts or tribunals in the district. The police inspectors conduct prosecution cases on behalf of the State in the courts of the magistrates.
Chapter Two

Straight Baseline System in International Law of the Sea

To determine the outer limit of maritime zones each coastal State needs to determine first the points from which the breadth of the zone is to be measured, and the lines joining those points form the baselines of that State. The waters situated in the landward side of the baseline are the internal waters of the State. It can be said that all delimitation lines of various zones run in parallel to the baselines. The shape of baselines of a coastal State completely depends on the geographical feature of the concerned coast; sometimes the baselines follow all sinuosities of the coast, sometimes avoid some sinuosities through straight lines joining some determined point on the coast. When the coasts are relatively straight and unindented it is easy to follow the coastline in drawing the baselines. But when the coasts are not so straight, but are highly indented or penetrated, infringed with islands, it is then very difficult to follow all the sinuosities.

Drawing baselines is a unilateral act and it completely depends on the concerned coastal States own discretion. But it has an international aspect too. A State can not determine the baselines in such a way that creates conflict with other coastal States’ interest. That is why set rules on drawing baselines were necessary, especially when the coast line is highly irregular. The scope of this chapter is to discuss the evolution and characteristics of international laws regarding straight baselines through discussing some judgements given by the International Court of Justice and the United Nations Conventions on the Law of the Sea. It will also discuss some deviations of this conventional law seen in States’ practice.
2.1. Genesis of the Issue: The Anglo-Norwegian Fisheries Case (1951)

2.1.1 Course of Litigation

2.1.1.a Facts led to the Litigation

From 1616 to 1906 British fishermen did not do fishing in Norwegian coastal waters due to complaints from the King of Denmark and of Norway, but from 1906 some fishing vessels started to appear off the coasts of Eastern Finnmark. As a result the Norwegian Government took some measures to delimit its sea areas within which foreign fishermen’s fishing were prohibited. In 1911 a British trawler was captured, first after the delimitation, for violation of these measures; negotiation began between to concerned governments but interrupted due to First World War. Negotiation began again in 1924 but was in vain. On 27 July 1933 the United Kingdom Government sent a memorandum to Norwegian Government complaining that the Norwegian authorities had used unjustifiable baselines to delimit territorial sea. On 12 July 1935, a Norwegian Royal Decree\(^{13}\) was enacted delimiting the Norwegian fisheries zone north of 66°28.8’ North latitude. In consequence the United Kingdom Government protested immediately through making urgent representation in Oslo. Negotiations were initiated again and the Norwegian Government declared to deal the Decree leniently with foreign vessels fishing a certain distance within the fishing limit. As the outcome of the negotiation was not remarkable the Norwegian Government abandoned its lenient enforcement in 1948.

\(^{13}\) The preamble and the executive parts of the Decree of 1935 were as follows:
“On the basis of well-established national titles of right; by reasons of geographical conditions prevailing on the Norwegian coasts; in safeguard of the vital interests of the inhabitants of the northern most parts of the of the country; and in accordance with the Royal Decrees of the 22\(^{nd}\) February, 1812, and 16\(^{th}\) October, 1869, the 5\(^{th}\) January, 1881, and the 9\(^{th}\) September , 1889, are hereby established lines of delimitation towards the high sea of the Norwegian fisheries zone as regards that part of Norway which is situated northward of 66°28,8’ North latitude. These lines of delimitation shall run parallel with straight baselines drawn between fixed points on the main land, on islands or rocks, starting from the final point of the boundary line of the Realm in the easternmost part of Varangefjorden and going as far as Træna in the County of Nordland.”
Subsequently a considerable number of British trawlers were arrested, and that led the British Government to institute proceedings in the International Court of Justice.

The Government of the United Kingdom of the Great Britain and Northern Ireland put an application before the International Court of Justice against the Kingdom of Norway on 28 September 1949. The subject was the validity or otherwise of the lines of delimitation of the Norwegian Fisheries Zone laid down by the Royal Decree of July 12th, 1935, by which the Norwegian Government delimited the zone in the Northern part of the country.

The case was ready for hearing on 30 April 1951. During the hearings the Court heard Sir Eric Beckett, Sir Frank Soskice, Mr. Welberforce and Professor Waldock on behalf of the United Kingdom Government; and M. Arntzen, Professor Bourquin on behalf of the Government of Norway.

2.1.1.b Arguments by the Parties

The United Kingdom Government argued that as maritime delimitation has always international aspects it should be done following general international law. In this regard it contended that the limits of the Norwegian fisheries zone laid down in 1935 Decree were contrary to the international law. Its view was that Norway adopted a contradictory baseline system to measure the belt of territorial sea. In this respect its opinion was quite clear: the baseline must be the low water mark\(^{14}\) on permanently dry land which is a part of Norwegian territory or the proper closing line of the Norwegian internal waters\(^{15}\). Here one notable matter is that the United Kingdom Government proposed proper closing line of internal waters in place of low-water mark when it is necessary, but it also mentioned that this closing line could only be drawn where an area of water is bay and the closing line should be drawn between the natural geographical entrance points where

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14 The low-water line is the intersection of low-water plane with the shore. For further reading see Office for Ocean Affairs and the Law of the Sea, Baselines: An Examination of the Relevant Provisions of the United Nations Convention on the law of the Sea, pp 3
15 [1951] *ICJ Rep.* 116 at 120
the indentations ceases to have an configuration of a bay. In this regard United Kingdom added that on historic ground Norway could claim all fjords and sunds, which were bays according to international law, as its internal waters. That meant the proper closing lines across the mouths of those fjords and sunds could be granted as parts of Norwegian baselines. But the British Government fixed that the length of those straight lines could not exceed ten miles. On the other hand, the British Government argued that those historical fjord and sounds which had characteristics of legal strait according to international law can not be a part of Norwegian internal water; rather those would be part of Norwegian territorial water. That meant, in those cases, the baseline will follow the coastline and no straight closing line could be drawn there.

In case of low-tide elevations the British Government viewed that if those elevations lied completely or partly within the Norwegian territorial water then those would have their own territorial waters. Here it did not mention anything about the status of the water situated between the low-tide elevations and the main land, but from their view it could be understood that those waters would be considered as territorial waters, not internal waters. That meant those low-tide elevations could not be considered for base points while drawing Norwegian baselines. But to measure the territorial waters of those low-tide elevations and to follow the general direction of Norwegian coast the British government propose to use the ‘envelops of arcs of circles’ method.

The British Government also argued that the baselines should follow the general direction of the coast, but, in its view, Norwegian baselines did not follow the general direction in all parts, or did not follow sufficiently closely. On this point it mentioned two cases; the sector of Sværholthavet and that of Lopphavet Moreover, those lines

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16 Ibid.
17 All miles in this study, unless otherwise mentioned, refer to nautical miles. One nautical mile equals 1,852 meters
18 A low-tide elevation is a naturally formed area of land in the sea which remains surrounded by and above water during low tide. But during high tide it goes under water.
19 This technique was first proposed by the United States delegation at the 1930 Conference for the codification of international law on the sea. The main objective of this proposal was to facilitate the application of the principle that the belt of the territorial sea must follow the direction of the coast.
20 Svæholthvet peninsula (between basepoints 11 and 12 mentioned in the Decree of July 12th, 1935), situated between Cape Nordkyn and the North Cape, was 38.6 miles in length. The United Kingdom
disregarded the natural connection between certain sea areas and the land formations separated or surrounded them. For that reason the British Government viewed that those baselines were not drawn in conformity with international law.

The Norwegian Government, in its part, argued that 1935 Decree was in complete conformity with the international law and it followed the traditional system of delimitation. According to its view, the rules of international law take into account the diversity of facts and, therefore, it agree that the drawing of baselines must be adapted to the special conditions prevailing in different regions. In this context it viewed that the system of delimitation adopted in 1935 Decree, a system characterised by the straight lines, did not violate the general law as it was done taking into account the local condition. So, the Norwegian Government, in their submission, requested the Court to reject all submissions contrary to the 1935 Decree and declare the delimitation fixed by the aforesaid decree is not contrary to the international law.

2.1.2 Court’s View

Regarding delimitation of sea areas the Court viewed that “the delimitation of sea areas has always an international aspect; it cannot be dependent merely upon the will of the coastal State as expressed in its municipal law. Although it is true that the act of delimitation is necessarily a unilateral act, because only the coastal State is competent to undertake it, the validity of the delimitation with regard to other States depends upon international law.”21

In response to the British proposal, to use the low water mark on the permanently dry land as the baseline of Norway, the Court did not find any difficulty with it. The Court found that the Parties agreed as to this proposal but differed as to its application. It was to decide by the Court then whether the low water mark of the mainland or the low water

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21 [1951] ICJ Rep. 116 at 132
mark of the skjærgaard was to be taken in consideration to determine the territorial sea belt. Considering the geographic reality, as the skjærgaard bordered the main land in western sector and the coast line is in fact the outer line of the skjærgaard, the Court decided to take the low water mark of the skjærgaard as the baseline.

According to the Court’s view it is easy to draw baseline following the low water line strictly for relatively straight coast, but where the coast is highly irregular the baseline becomes independent of the low water mark. In case of highly irregular coast the baseline can be drawn only through geometrical construction. So, in that case, low water mark rule can not be put forward as a set rule which requires following all the sinuosities of the coast while determining the baseline.

The British Government contended that Norway might draw straight baselines only across the bay. But the Court disagreed as it did not find any valid reason why straight lines can not be drawn in other geographic situations. The Court viewed that if Norway can draw straight line across the bay it can also draw straight line across other historic waters too. So, Norway was entitled to draw straight lines between islands, islets, rocks, across the sea areas separating them, even when such areas do not fall within the conception of bay.

In response to the British Government’s contention, that certain lines did not follow the general direction of the coast, the Court viewed that as in case of highly irregular coast the coastal State is entitled to draw baselines on geometrical construction, independent of low water mark, the base lines may depart within reasonable limit from the physical line of the coast.

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22 The court explained the historic waters as the waters which are treated internal waters but which does not have the character of internal waters, and it can not be claimed as internal water unless it is claimed on historic title. The British Government used this notion for both internal waters and territorial waters, which, according to the Court’s consideration, was derogation from general international law.

23 [1951] ICJ Rep. 116 at 130
24 Ibid at 129
Against the argument from the United Kingdom Government that the length of straight lines must not exceed ten miles, the Court viewed that this ten-mile rule is inapplicable against Norway as she always opposed any attempt to apply it to the Norwegian coast. Though some States had adopted the ten-mile rule in their national law but some other State not, therefore the ten-mile rule did not acquire the authority of a general rule of international law.

The court also established that the Norwegian authority applied this system of delimitation consistently from 1869\(^{25}\) until the time when the dispute arose and faced no opposition from other States during this period. Though the United Kingdom Government tried to show that the Norwegian authority did not follow this system consistently by referring to some documents, but it could not convince the court.

Thus the Court finally reached to a conclusion that due to uncommon geography of Norwegian coast the Norwegian Government adopted the method of straight baseline and consolidated this method by sufficiently uninterrupted long use.

Finally the Court judged that the method employed for the delimitation of the fisheries zone by the Norwegian Royal Decree of July 12\(^{th}\), 1935, is not contrary to the international law and the base-lines fixed by the said decree in application of this method are not contrary to the international law.

2.2 Straight Baseline System in the Geneva Convention on the Territorial Sea and the Contiguous Zone (1958)

Before establishment of the United Nations a good number of attempts were taken by the non-government learned societies to codify the rules of customary international law.

\(^{25}\) Statement of Reasons of the 1869 Decree declared that the line of outer limit of its territorial water will run parallel with a straight line between the two outer most islands or rocks not covered by the sea. See [1951] ICJ Rep. 116 at 135
applicable to the seas. In 1930 the League of Nations convened a conference at The
Hague for codification of international law, and it dealt with the breadth of territorial sea,
the contiguous zone, the high seas, the continental shelf, fishing and the conservation of
leaving resources. They strictly formulated the low water mark rule that the baseline of a
coastal State should be drawn following all the sinuosities of the coast. But, at the same
time, they could not disregard some exceptions for coasts having groups of islands in its
immediate vicinity or having bays. However, the conference ended without reaching
agreement.

In 1945 the United Nations replaced the League of Nations; in 1948 it established
International Law Commission (ILC) appointing thirty-four eminent lawyers nominated
and elected by the governments. ILC was entrusted with a duty to codify international
law of the sea considering all contemporary important aspects, and accordingly, in 1956,
the ILC submitted a complete report to the UN General Assembly.

The first United Nations Conference on the Law of the Sea (UNCLOS I) held at Geneva
in 1958 and eighty-six States attended the conference. The conference adopted four
conventions basing on the report submitted by the ILC:

- the Convention on the Territorial Sea and the Contiguous Zone;
- the Convention on the High Seas;
- the Convention on the Continental Shelf;
- the Convention on Fishing and Conservation of Living Resources of the High
  Seas.

2.2. a Analysis of Rules on Straight Baselines in the Geneva Convention 1958

ILC prepared the report five years after the judgment of Anglo-Norwegian Fisheries
Case, and the report closely followed the language of the judgment. Article 4 of the
Convention on the Territorial Sea and the Contiguous zone deals with the method of
drawing straight baselines which is as follows:
1. In localities where the coast line is deeply indented and cut into, or if there is a fringe of islands along the coast in its immediate vicinity, the method of straight baselines joining appropriate points may be employed in drawing the baseline from which the breadth of the territorial sea is measured.

2. The drawing of such baselines must not depart to any appreciable extent from the general direction of the coast, and the sea areas lying within the lines must be sufficiently closely linked to the land domain to be subject to the regime of internal waters.

3. Baselines shall not be drawn to and from low-tide elevations, unless lighthouses or similar installations which are permanently above sea level have been built on them.

4. Where the method of straight baselines is applicable under the provisions of paragraph 1, account may be taken, in determining particular baselines, of economic interests peculiar to the region concerned, the reality and the importance of which are clearly evidenced by a long usage.

5. The system of straight baselines may not be applied by a State in such a manner as to cut off from the high seas the territorial sea of another State.

6. The coastal State must clearly indicate straight baselines on charts, to which due publicity must be given.

This Article set rules on three aspects: requirements necessary to adopt straight baseline method, procedure to be followed to draw straight baselines, and notification of baseline. The article picked out two coasts appropriate for drawing straight baselines. The set criteria are:

   a. the coastline has to be deeply indented and cut into, or
b. a fringe of islands has to be present along the coast in its immediate vicinity.

The set procedure is: a) before drawing straight baselines appropriate points have to be determined on the low water mark, b) while drawing the straight baselines must follow the general direction of coast; must not depart to any appreciable extent from the general direction, c) low-tide elevations can be taken into account only when the elevation possesses lighthouses or similar permanent installations on it, and finally d) a State cannot draw its straight baselines in such a way that cuts off another State’s territorial waters from the high seas.

Regarding notification the article instructs that the State shall publicise its straight baselines duly to make other States aware of its maritime delimitations.

According to paragraph 1 a coastal State ‘may’ adopt a straight baseline system if its coastal area fulfils the set criteria. By this paragraph the coastal State had been given the authority to draw straight baselines along its coast when coastal geographic feature is as such mentioned in the aforesaid paragraph. But it is not obligatory for the coastal State to adopt straight baselines system, whereas coastal State can adopt normal baseline system that follows the coast’s entire geographic feature.

Though the Article closely followed the language of the judgment it modified some words and included some new points. In this article we find the phrase ‘fringe of islands’ for the word ‘skjærgaard’ used in the judgment. This article used the phrase ‘immediate vicinity’ to characterise islands’ proximity to the mainland while the judgment used the phrase ‘covered by the skjærgaard’. This Article permitted to use low-tide elevations as base points for the straight baselines, but restricted the use mentioning the criteria of existence of permanent installation on it.
2.2.b Limitations of Article 4

The article, in paragraph 1, mentioned about fringe of islands, which clearly indicated multiple islands’ existence, but did not mention the minimum number of islands required to form the fringe. It may be mentioned the Norwegian Government estimated the number of insular formations, large or small, that formed the skjærgaard as one hundred and twenty thousand\(^{26}\).

This Article did not mention anything on taking a single island into account while drawing the straight baselines. Paragraph 2 of Article 10 mentioned that

“The territorial sea of an island is measured in accordance with the provisions of these articles”

That means the island will have its own territorial sea, which indicates that the island will have its own baseline. But it was not cleared in Article 4 whether the baseline of that island would be connected with the baseline of the main land.

According to this Article a coastal State can adopt straight baseline system if there is a fringe of islands is present along the coast in its immediate vicinity. It is understood that the fringe of island should be close enough to be considered for drawing straight baselines. But it did not clarify about the maximum distance of the fringe of islands from the sea shore that would make it eligible to fall in this criterion.

This Article was not explicit about the maximum acceptable length of individual straight line used in straight baselines system. While adopting straight baseline system the States were instructed to take into account the economic interest peculiar to the region and the reality. Though attempt was taken to introduce maximum length of fifteen miles for any individual line but the attempt remained unsuccessful\(^{27}\). It may be mentioned that in *Anglo-Norwegian Fisheries Case* the Court uphold the validity of a line of 44 miles in length\(^{28}\).

\(^{26}\) [1951] *ICJ Rep.* 116 at 127


\(^{28}\) [1951] *ICJ Rep.* 116, Dissenting Opinion of Sir Arnold D. McNair, 167
This article did not mention anything about unstable coasts for the presence of delta and other geographical situation. It also did not mention about the permanent ice shelves, found in part of Arctic and Antarctica. These ice shelves may be of considerable width, and it was uncertain whether the base line would be the outer edge of the shelves or the edge of the land29.


As per United Nations General Assembly Resolution 1307 (XIII) of December 10, 1958, the Second United Nations Conference on the Law of the Sea (UNCLOS II) started in Geneva on 17 March 1960 and continued till 26 April 1960.30 Representatives from eighty-eight States attended the Conference. The principle objective of this conference was to reach a successful conclusion on delimiting the extent of territorial sea on which no unanimous decision could be reach in UNCLO I. But this Conference also remained unsuccessful on adopting resolution on this issue.31


In between 1960 and 1970 forty-six new States, in total, became independent32 and joined the world community of States. These newly independent States did not have any say in the formulation of 1958 Convention. Moreover, in this aforesaid time interval fishing and

31 The final proposal, jointly made by Canada and Untied States, provided for a territorial sea to a maximum of 6 miles, an exclusive fishing zone to a maximum of 6 miles beyond the 6-mile territorial sea, and for a 10-year grace period and for a 10-year grace period for historic fishing in the outer 6 miles. Though the conference’s Committee of the Whole approved the proposal by a majority vote, the proposal could not obtain required two-thirds majority in plenary meeting. See Lawrence Juda, International Law and Ocean Use Management, 1996, pp. 161
marine pollution increased to a great extent which made many coastal States increasingly concerned as they were unable to reduce those problems satisfactorily due to having narrow jurisdictional limits over their coastal sea. During the 1960s the subject of the seabed mining of manganese nodules got a significant attention, which was not even on the agenda of the 1958 and 1960 United Nations Conference on the Law of the Sea. By the early 1970s a new concept, exclusive economic zone (EEZ), emerged and got mass acceptance. All these factors led to widespread support for a review of the whole of the law of the sea.

The first session of UNCLOS III was held in New York in 1973, and worked for next nine years until reaching a convention in 1982. The Conference was divided into three main committees. Committee One dealt with the problem of the legal regime of the deep sea bed. Committee Two dealt with the regimes of the territorial sea and contiguous zone, the continental shelf, exclusive economic zone, the high seas, and fishing and conservation of the living resources of the high seas. Committee Three dealt with the matter of the preservation of the marine environment and scientific research.

During this period representatives from more than 160 sovereign States took part in formulating this convention. Consensus procedure, rather than formal voting, was followed in adopting any final text. The text of the third United Nations Conference on the Law of the Sea was finally adopted on 30 April 1982, and on 10 December 1982 it was opened for signature. Within two years 159 States and other entities signed the Convention. The Convention entered into force on 16 November 1994, and as of July 2005, 148 States ratified the convention and the last State ratified is Burkina Faso (25 January 2005).

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33 From 1960 to 1970 the total marine fish catch increased from an annual level of some 33.6 to 61.4 million metric tons, but the catch, with some notable exceptions, remained dominated by some developed countries. See Lawrence Juda, International Law and Ocean Use Management, 1996, p. 171
34 In a 1956 report to the ILC, Special Rapporteur François expressed the view that ‘The Commission will not have to consider the freedom of States to explore and exploit the subsoil of the high sea outside the continental shelf. The construction of the permanent installations for the purpose in sea areas where the depth exceeds 200 metres is at present impossible, and is likely to remain so for some considerable time’ (See J. P. A. François, “Regime of the High Seas and Regime of the Territorial Sea”, A/CN.4/97, in Yearbook of the Internal Law Commission, 1956, vol. II pp. 1-12 at p. 9).
2.4.a Article 7 of 1982 Convention

1. In localities where the coastline is deeply indented and cut into, or if there is a fringe of islands along the coast in its immediate vicinity, the method of the straight baselines joining appropriate points may be employed in drawing the baseline from which the breadth of the territorial sea is measured.

2. Where because of the presence of a delta and other natural conditions the coastline is highly unstable, the appropriate points may be selected along the furthest seaward extent of the low-water line and, notwithstanding subsequent regression of the low-water line, the straight baselines shall remain effective until changed by the coastal State in accordance with this convention.

3. The drawing of straight baselines must not depart to any appreciable extent from the general direction of the coast, and the sea areas lying within the lines must be sufficiently closely linked to the land domain to be subject to the regime of internal waters.

4. Straight baselines shall not be drawn to and from low-tide elevations, unless light houses or similar installations which are permanently above sea level have been built on them or except in instances where the drawing of baselines to and from such elevations has received general international recognition.

5. Where the method of straight baselines is applicable under paragraph 1, account may be taken, in determining particular baselines, of economic interests peculiar to the region concerned, the reality and the importance of which are clearly evidenced by long usage.
6. The system of straight baselines may not be applied by a State in such a manner as to cut off the territorial sea of another State from the high seas or an exclusive economic zone.

2.4.b Analysis of Article 7

Article 7 includes a paragraph, which deals with highly unstable coast, to article 4 of the Geneva Convention 1958. Otherwise it is more or less same. The included second paragraph authorises to draw straight baselines along the coastline which are highly unstable due to presence of a delta ‘and’ other natural conditions. Here the word ‘and’ indicates that any coastline will be considered highly unstable only when it is a deltaic coastline; other natural conditions alone will not suffice.

Another important feature of this paragraph is that it permits to use base points along the furthest seaward extent of the low-water line, and those points will remain effective even if the coastline retreats. The principal objective of this paragraph is to protect the interest of a State having retreating deltaic coast. Notably, this paragraph does not cater for the State that has a progressing deltaic coast.

According to Article 7 a coastal State should follow five general principles while drawing straight baselines.

I) The line must not depart to any appreciable extent from the general direction of the coast.

II) The sea areas lying landward of the baselines must be sufficiently closely linked to the land domain to be subject to the regime of internal water.

III) A low-tide elevation can not be considered as base point unless it is surmounted by lighthouse or similar permanent installation or the elevation is given general international recognition as base points.
IV) When the adoption of straight baselines system is deemed appropriate the coastal State may take into account the long standing economic interest peculiar to the region.

V) No straight baseline should be drawn in such a way that cut off the territorial sea of another State from the high seas or an exclusive economic zone.

Regarding the first principle the Court, in its judgment in *Anglo-Norwegian Fisheries Case* (1951), noted that the concept “is devoid of any mathematical precision”. It was found that with the solitary exception of Vest fjord the Norwegian straight baseline did not deviate by more than 15° from the general direction of the coast. However, a maximum of 20° has been suggested as general rule. Sometimes the general direction is a relative term as it largely depends on the length of the coastline considered to find out the general direction. Therefore the Court suggested that except in cases of manifest abuse it was inappropriate to examine one sector of the coast alone or to rely on the impressions that a large scale of this sector alone gives.

Though the second principle asserts the close proximity of the landward side water of baseline to the land domain, the International Court of Justice viewed that this idea should be liberally applied along a coast, unusual like that of Norway.

Third principle is about the acceptance of low-tide elevation as base point, though the acceptance depends on existence of permanent installation over it. This criterion has been relaxed for the case of international recognition. This relaxation has been done considering the fact that the International Court of Justice approved two base points situated on the low-tide elevations, having no installation over them, in *Anglo-Norwegian Fisheries Case* (1951). Both of those low-tide elevations were drying rock.

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35 [1951] *ICJ Rep.* 116 at 142
38 [1951] *ICJ Rep.* 116 at 142
39 [1951] *ICJ Rep.* 116 at 133
2.5 State Practices and Some Common Deviations

Though the Law of the Sea Convention 1982 allows some exceptional coasts having some prescribed peculiar characteristics to adopt straight baseline system, so far a good number of States has adopted the straight baseline system to claim their maritime zones. In several cases States have not follow the set criteria of article 7 closely, or in other words many States have liberally implied the rules in drawing the straight baselines. The deviations observed in State practice can be summarised in seven categories.

First, a good number of States have adopted straight baselines system for coasts which are rather straight then deeply cut into. Fig.2.1 shows the straight baselines of Colombia in Caribbean coast. It is evident from the fig that the coast line is not highly indented and cut into, or not having complex configuration. The line drawn between basepoint 5(12°13′08″N, 72°10′50″W) and base point 6(11°20′18″N, 74°12′47″W) is 131 miles long and the coastline between those two points is neither fringed by islands nor highly irregular. Fig. 2.2 shows the deviation in a simple form, that a straight line has been drawn between two cliffs where the coast is not highly indented. In that case, according to the 1982 Convention, the coastal State is prescribed to adopt normal baseline. This type of
deviation is seen in baseline system of, among many other States, Albania, Australia, Myanmar, Colombia, Cuba, Iceland, Ireland, Italy, Mauritania, Senegal and Sweden.\textsuperscript{41} Second type of common deviation is connecting islands, separated by a large distance, with straight lines though they do not form fringe of islands (Fig. 2.2). Sometimes those islands are too far from the mainland, and thus connecting those islands States enclose a large portion of sea as internal water. For example, Iceland, in its South-West coast, has drawn a straight baseline from Surtsey (63°17′7N, 20°36′2W) to Eldeyjardrangur 63°43′8N, 22°59′4W), which is 70 miles in length (Figure 2.4).\textsuperscript{42} Islands near Surtsey

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure22.png}
\caption{Common Deviations}
\end{figure}

\textsuperscript{41} J. R. V. Prescott, ‘Straight and archipelagic baselines’ in G. Blake (ed.), \textit{Maritime Boundaries and Ocean Resources} (London: Croom Helm, 1987), p 41
\textsuperscript{42} This segments were proclaimed on 11 March 1961; it was revised by the law No. 41 of 1 June1979 concerning the Territorial Sea, the Economic Zone and the Continental Shelf. See \textit{The Law of the Sea: Baselines: National Legislation With Illustrative Maps}, 1989, p. 184 and J. R. V. Prescott, ‘Straight and archipelagic baselines’ in G. Blake (ed.), \textit{Maritime Boundaries and Ocean Resources} (London: Croom Helm), 1987, p 44
and islands near Eldeyjardrangur are so apart that it is not justifiable to consider them infringing the coast (Figure 2.3).

**Figure 2.3 Straight baselines drawn along north-west coast of Iceland**

Third form of deviation is that using low-tide elevations having no permanent installations over them. Though the 1982 Convention clearly states that no low-tide elevation can be considered as basepoint unless it has permanent installation over it, some States including Saudi Arabia and Syria has considered some low-tide elevations as basepoints.43

Fourth, straight baselines are drawn in such a way that the sea areas inside the lines are insufficiently closely linked to the land to be subject to the regime of internal waters. A good example of this kind of deviation is Myanmar’s baseline system. Across the Gulf of Martaban it has drawn a straight line, which is 222-mile long, and enclosed a sea area equal to the total area of Denmark (Figure 2.4).44

Fifth, some States have located base points in the sea rather than on the low-water mark. Bangladesh’s baseline is a leading example though its baselines closely follow the ten-

43 See *Limits in the Seas* Nos 20 (1970) and 53 (1973) respectively.
fathom isobath except off Cox’s Bazar. Some States originate their baselines from the boundary line with neighbouring States but those points are located on the sea.

Sixth, some States have drawn their baselines in such way that they have cut off other States territorial sea from the high seas or EEZ, though Article 7 of 1982 Convention strictly prohibits this.

![Figure 2.4: Straight baseline across the Gulf of Martaban](image)

Finally, some States have delimited their territorial sea in such a way it seems that those outer limits of territorial sea are measured from some imaginary straight baselines which were never publicised. Haiti, North Korea and Malaysia have delimited their territorial sea like that. According to Decree of 6 April 1972 the limit of Haitian territorial water has been fixed at 12 miles from the low-water line, but the map (c. 1:5,000,000) accompanied the decree illustrates a polygonal outer limit of the territorial sea. And it is evident that the inner limit of territorial water, obtained by drawing parallel lines to the lines drawn to define the outer limit, the baselines of Haiti, does not follow the low-water line.

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2.6 Conclusion

The straight baseline system got the recognition first in Anglo-Norwegian Fisheries Case in 1951; since then more then 50 years have passed. This method became a codified provision in Geneva Convention 1958 and then slightly modified in the Law of the Sea Convention 1982. But the objectives have remained the same. The principal objective of formulating this system was to avoid the complexity of coastline to give a simple shape to the baseline so that the outer limits of all other maritime zones get the simple shape as well. The basic criteria to adopt the straight baseline system was- having a coast highly indented or cut into, or having a fringe of islands along the coast, or having a highly unstable deltaic coast. Since the judgment a good number of coastal States has drawn straight baselines along their coast. Among them it is hard to find few coasts that have literally followed the codified provision. State practice shows that most of the coastal States have relied on liberal interpretation of the provision. Certainly, each case has to be analysed on its own merits.47

Under these present circumstances few States are active in making protests against the deviations. Most of the protests are seen made by the US; the European Community are not so frequent protestor; and in most of the cases neighbouring countries are active.48 Presumably these few protest will not be able to halt the evolution of customary international law of the sea. It is not unlikely that the provision will be revised again according to the emerging customary international law and international practices.

47 For getting general idea on national legislations of different States see Baselines: National Legislation with Illustrative Maps, Office for Ocean Affairs and the Law of the Sea (United Nations, New York 1989)
Chapter Three

Bangladesh’s Straight Baseline: 
Geographical, Economic, and Legal Considerations

The imposition of straight baselines must be viewed in light of the decision of the International Court of Justice in the Anglo-Norwegian Fisheries case. In particular, the Court was mostly influenced by the geographical circumstances. In its judgment the Court viewed that “the method of straight baselines, established in the Norwegian system, was imposed by the peculiar geography of the Norwegian coast.” The judgment gave international recognition to a new concept of drawing baseline from which breadths of all other maritime zones are measured. It recognised the separation of baselines from the low-water line of the coast to avoid the complexity in using the low-water line as the datum for projecting maritime limits.

The decision of the International Court is relevant to Bangladesh because the country is criss-crossed by hundreds of rivers which carry huge load of sediments to the Bay of Bengal every year. The combined effect of river load and tidal influence has made the coastal region highly dynamic and the coastline fluctuates back and forth continuously. Considering the dynamic nature of the coastline Bangladesh devised a method of drawing straight baselines on depth criteria. This chapter is focused initially on the unique characteristics of Bangladesh’s coastal region that led Bangladesh to adopt a unique straight baseline method which closely follows the ten fathom isobath. This chapter will also analyse Bangladesh’s straight baselines in light of Article 7(2) of the Law of the Sea Convention 1982.

3.1.1 River System of Bangladesh: An Important Geographical Factor

Bangladesh is basically a land of river, having about 700 rivers including tributaries across it. The total length of these rivers and tributaries is about 24,140 km. Some of

49 [1951] ICJ Rep. 116 at 139
these rivers are amongst world’s largest rivers in terms of length and volume of discharge. All these rivers commonly flow south towards the Bay of Bengal. The whole river system of Bangladesh is basically formed of four river systems:

I. Brahmaputra-Jamuna river system  
II. Ganges-Padma river system  
III. Surma-Meghna river system  
IV. Chittagong region river system

Brahmaputra-Jamuna River System: The Brahmaputra-Jamuna river system originated from ‘Chemayungdung Glacier’ in the Kailash Range of the Himalayas. It enters Bangladesh through north-east of Kurigram district, takes the name Jamuna, flows south until meeting Padma, and then take a south-eastern turn and meets Meghna at Chadpur. The Jamuna is the fourth largest river in the world for average discharge at the mouth.\(^{50}\) Within Bangladesh its total length is 276 km of which Brahmaputra is only 69 km. Width/depth ratio varies from 50:1 to 500:1 for individuals channel and the gradient varies from 0.000077 to 0.00005 (near the confluence of the Padma river)\(^{51}\), higher than any other major rivers in Bangladesh. For that reason Jamuna flows faster and carry coarser sediments than most other rivers in the country.

Dharala, Tista, Karatoya, Atrai are the major tributaries to Jamuna, meet from the west side while the major distributaries including Dhaleshwari, Bongshi, Itchamoti, Kaliganga take off from the east bank. These distributaries strongly influence the discharge of the rivers that flow past Dhaka, the capital of Bangladesh.

Ganges-Padma River System: The Ganges originates in the central Himalayas and flows 2,600 kilometres to the Bay of Bengal. Over the course this great river and its tributaries have formed one of the largest flood plains in the world. In Bangladesh Ganges is commonly known as Padma. It enters Bangladesh through western border in Nawabganj district. It flows in a south-easterly direction, meets the Jamuna at Goalanda Ghat, and

\(^{51}\) Ibid.
further down meets the Meghna at Chadpur. The Mohananda is the only tributaries to the Ganges in Bangladesh. But it has a good number of distributaries such as, Arial Khan, Bhairab, Ichamati, Nabaganga, and Kumar.

During the monsoon the discharge of Ganges rises to 76,000 cumec, while during dry season discharge come down to 15000 cumec\textsuperscript{52}.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{rivers_of_bangladesh.png}
\caption{Rivers of Bangladesh}
\end{figure}

Surma-Meghna River System: This is the longest river system (669 km) in Bangladesh. The Surma originates in the hills of Shillong and Meghalya on India. The river Barak, the main source of Surma, divides into two branches in Assam of India. The northern branch, called Surma, joins Meghna near Kuliachar, and the southern branch joins Meghna near Ajmirigonj. Meghna has two parts: the upper Meghna and the lower Meghna. The upper Meghna is comparatively a small river, flows from Bhairab Bazar to Shaitnol. The lower Meghna is one of the largest rivers on the world, as it is the mouth of the three great

\textsuperscript{52} See www.banglapedia.org
rivers – the Padma, the Jamuna, and the Meghna. The net discharge through this river varies from 10,000 cumec in the dry season to 1,60,000 cumec in the wet season.

The tectonic evolution indicates that the Meghna drainage is younger in comparison to Ganges drainage. As a result the delta of the old Brahmaputra-Meghna River is much smaller if compared to the Ganges delta. From the beginning of the delta due to presence of some small islands the stream divides into two main channels.

Chittagong Region River System: The major rivers of this region are Karnafuli and its tributaries are namely Bakkhali, Sangu, Matamuhuri, Naf, and Feni. The Karnafuli, the principal river of this region, originates in the Lushai Hills of Mizoram (India), flows through Rangamati and discharges into the Bay of Bengal near Patenga. This river is about 131 kilometres long. The port city of Chittagong is at the mouth of these rivers.

3.1.2 The Bengal Delta

The Bengal Delta or the Ganges-Brahmaputra Delta is one of the largest deltas on earth. Sediment load carried by two Himalayan rivers, the Ganges and Brahmaputra, and one non-Himalayan river, Meghna, has formed this delta over millions of years. 60% of Bangladesh’s coastline is formed by this delta.

The Bengal Delta’s formation started about 125 million years ago, though at initial stage the rate of sedimentation was very low. The delta began to take its current shape about 10.5 million years ago as a consequence of major sea level fall that caused considerable erosion of earlier sedimentation. After that, the delta began to take its shape in a steady tide environment. Sedimentation pushed the shore line east and southern-east direction, each new formation started to grow more in seaward direction.
At present the estimated suspended loads of the Ganges and Brahmaputra are $520 \times 10^6$ t/year and $540 \times 10^6$ t/year respectively. The contribution of Meghna to the total load is negligible, only about 1\%\(^{54}\). At the confluence of the Ganges and Brahmaputra 40\% of the suspended sediment is fine sand and 60\% is silt clay\(^{55}\).

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\(^{53}\) Milliman, J.D. Syvitski, J.P.M., (1992). Geomorphic, tectonic control of sediment discharge to the ocean: the importance of small mountainous river. J. Geology 100, 525-544

The lower delta plane of the Ganges Brahmaputra can be divided into three zones. The Meghna estuary region, east of 90°10’ longitude, where the Ganges-Brahmaputra riverine discharge is focused and island/shoal complex accretion is active. Geologically this deltaic plain is very young if compared to other plains. The western lower delta plain, the west of the Haringhata river mouth estuary, is comprised of mangrove vegetated islands and peninsulas. This zone is having the world’s largest mangrove forest, Sunderbans. The forest floor is 0.9-2.1 m above mean sea level, although saline water reaches as far as 100km inland during dry season (September-May) through tidal channels, and occasionally during monsoon (June-September) tidal water inundates Sunderbans. The third region, the central peninsula between the Horinghata river and the Meghna estuary, bears geology similar to Sunderbans, but this area has been cleared for cultivation.

3.1.3 General Features of Coastal Region of Bangladesh

The coastal area of Bangladesh is a mixture of old settlements and new land development. This area faces both erosion and accretion due to its location and shape that faces the tidal surge and sedimentation. Total length of Bangladesh’s coastline is 700 km. This region consists of 19 districts out 64 districts of Bangladesh. This region is characterised by existence of a vast network of rivers; as a result it observes the interaction of huge quantity of fresh and brackish water. The river discharge on the coastline is heavily laden with sediments, both suspended and bed load, which makes the coastline highly dynamic. A good number of islands are also present along the coast. The adjacent sea is very shallow and it bears a submarine canyon, named Swatch of no Ground, in its western part. Total coastal region of Bangladesh is divided into three regions: the eastern region, the central region and the western region.


The eastern coastline is extended from the mouth of river Feni to Badar Mokam, the southern tip of main land. This part is relatively straight, having flat beaches comprise of sand and clay. The most southern point of Bangladesh’s territory is the St. Martin’s Island (Figure 3.3), locally called Narikel Jinjira, a small island in the north-east of Bay of Bengal. It is 9km south of the main land, lies between 92°18’ and 92°21’ East longitudes and 20°34’ and 20°39’ North latitudes. This 7.315 km long island is inhabited by about 3,700 people, mostly fishermen. The south of this island is fringed by a number of small islets ranging from 100 to 500 sq. m. These islets are locally called Cheradia or Siradia, means separated islands. These islets get connected with the main island during the low tide. The coastline of Teknañaf is fairly straight having no indentation or cut into (Figure 3.4), and also having no island along it. Regularity of coastline continues along Cox’s Bazar as well except the northern end which has few islands along it. The principle islands are Maheshkhali and Kutubdia (Figure 3.4). They are separated from the mainland by Maheshkhali and Kutubdia channels respectively. Coastline of Chittagong district (Figure 3.5) is also regular, though is cut twice by two rivers namely Sangu and Karnafuli those discharge water loads in the Bay of Bengal. Chittagong port is situated in the mouth of Karnafuli. The northern part of Chittagong’s coast consists of two islands named Sandwip and Urirchar.

57 Maheshkhali is situated between 21°28’- 21°46’N and 91°50’- 92°00’E. Total area is about 362 sq km having a range of small hills, about 300 feet high, along the centre and its eastern coastline. And its west and northern low-lying coastline is fringed by mangrove forest.
The central region runs from the Tetulia to the Big Feni River estuary and includes the mouth of the Meghna River. The older part, inland section of the delta, in the north, is comparatively high with sandy soils; the lower central parts are subject to extensive flooding in every rainy season. This part is highly dynamic and changing its platform continuously. Most part of the combined flow of Ganges-Brahmaputra-Meghna river system discharges through this low lying area. Three districts are mainly situated in this Meghna estuary; Noakhali, Bhola and Potuakhali. All these three districts consist of a good number of islands. Noakhali district (Figure 3.5) is situated on the left bank of lower Meghna. Main islands under Noakhali district are Char Ramjan, Boyrarchar, Char Piya, Dhalchar, Hatiya and Nizum Dwip. Among these islands Hatiya is the biggest and Nizum Dwip is the farthest towards the sea. Bhola (Figure 3.6) is a district of islands, composed of several islands created in the mouth of lower Meghna. The area where the
island of Bhola is situated is categorised as estuarine floodplains\textsuperscript{58}. This island is very flat; the highest peak is about 3 meters from the sea level. All are relatively new and vulnerable to accretion and river erosion. This district, named after the main island Bhola, surrounded by some other islands named Char Manpura, Char Monika, Char Kukrimukri, Dhalchar, Char Nizam etc. Dhalchar and Char Nizam are the most southern islands of Bhola. Patuakhali district (Figure 3.7) is situated on the west of Bhola, having some islands and some parts in mainland as well. Main islands are Char Kashem, Char Montaz, Rabnabad Islands etc.

\textbf{Figure 3.5} Coastline of Chittagong (Source: \url{www.banglapedia.org})

\textsuperscript{58} Estuarine flood plains, unlike meander floodplains, do not bear meander scars and abandoned channels, gets silt deposits uniformly. They differ from the tidal flood plains in lacking of close network of tidal creeks.
The western region is comprised of Khulna, Shatkhira, Barguna, Bagerhat districts, mostly covered by the world's largest single block mangrove forest Sunderban\textsuperscript{59}. About 200 small islands are situated around this area and almost 400 interconnected tidal rivers, creeks, and canals crisscrossed it. The entire coastline is cut by rivers. Due to the presence of mangrove forest, the coastline in this area is relatively stable.

\textbf{Figure 3.6:} Coastline of Noakhali (Source: www.banglapedia.org)

\textsuperscript{59} Sundarbans is a Bangle word of which ban means forest. Both India and Bangladesh share this forest of which Bangladesh shares 2/3 of it. The Sundarbans was declared as a reserve forest in 1875, and in 1999 UNESCO declared about 32,400 hectares of it as World Heritage Site.
Figure 3.7 Coastline of Bhola (Source: www.banglapedia.org)
Figure 3.8 Coastline of Patuakhali  (Source: www.banglapedia.com)
Figure 3.9: Coastline of Barguna (Source: www.banglapedia.com)
Figure 3.10 Coastline of Bagerhat (Source: www.banglapedia.org)
Figure 3.11 Coastline of Khulna (Source: www.banglapedia.org)
About 20 million people live in the coastal region of Bangladesh and 20% of them earn their livelihood from coastal and marine resources. This area is rich in both renewable and non-renewable resources. The coastal area has recently got international attention because of potential presence of in-shore and off-shore natural gas. Besides natural gas, some other commercially important minerals like Monazite, Zircon and Caesium have been found in sandy beaches along Cox’s Bazar.

Table 1: Bangladesh by Coastal District Households & Population (all in thousand):

<table>
<thead>
<tr>
<th>Coastal Districts</th>
<th>Households</th>
<th>Population</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Khulna</td>
<td>388</td>
<td>1119</td>
<td>1011</td>
<td>2130</td>
<td></td>
</tr>
<tr>
<td>Shatkhira</td>
<td>298</td>
<td>842</td>
<td>817</td>
<td>1660</td>
<td></td>
</tr>
<tr>
<td>Bagerhat</td>
<td>282</td>
<td>761</td>
<td>728</td>
<td>1489</td>
<td></td>
</tr>
<tr>
<td>Pirojpur</td>
<td>209</td>
<td>555</td>
<td>549</td>
<td>1104</td>
<td></td>
</tr>
<tr>
<td>Jhalakati</td>
<td>130</td>
<td>349</td>
<td>345</td>
<td>694</td>
<td></td>
</tr>
<tr>
<td>Barisal</td>
<td>425</td>
<td>1175</td>
<td>1124</td>
<td>2299</td>
<td></td>
</tr>
<tr>
<td>Bhola</td>
<td>273</td>
<td>788</td>
<td>744</td>
<td>1532</td>
<td></td>
</tr>
<tr>
<td>Patuakhali</td>
<td>234</td>
<td>666</td>
<td>657</td>
<td>1323</td>
<td></td>
</tr>
<tr>
<td>Barguna</td>
<td>152</td>
<td>405</td>
<td>400</td>
<td>805</td>
<td></td>
</tr>
<tr>
<td>Lakshmipur</td>
<td>249</td>
<td>699</td>
<td>692</td>
<td>1391</td>
<td></td>
</tr>
<tr>
<td>Noakhali</td>
<td>399</td>
<td>1162</td>
<td>1185</td>
<td>2347</td>
<td></td>
</tr>
<tr>
<td>Feni</td>
<td>194</td>
<td>580</td>
<td>578</td>
<td>1158</td>
<td></td>
</tr>
<tr>
<td>Chittagong</td>
<td>971</td>
<td>3066</td>
<td>2678</td>
<td>5744</td>
<td></td>
</tr>
<tr>
<td>Cox’s Bazar</td>
<td>228</td>
<td>785</td>
<td>717</td>
<td>1502</td>
<td></td>
</tr>
</tbody>
</table>

Source: Population Census, 1991, BBS.

Table 2: Distribution of major livelihood groups

<table>
<thead>
<tr>
<th>Livelihood groups in the coastal zone</th>
<th>Households (year 2001)</th>
<th>Number in million (estimated)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture laborer</td>
<td>1.81</td>
<td>26.4</td>
<td></td>
</tr>
<tr>
<td>Small farmer</td>
<td>1.79</td>
<td>26.1</td>
<td></td>
</tr>
<tr>
<td>Fisher</td>
<td>0.53</td>
<td>7.8</td>
<td></td>
</tr>
<tr>
<td>Urban poor</td>
<td>0.70</td>
<td>10.2</td>
<td></td>
</tr>
<tr>
<td>Total (4 groups)</td>
<td>4.87</td>
<td>70.5</td>
<td></td>
</tr>
<tr>
<td>Total coastal zone</td>
<td>6.86</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Source: BBS, 1999; 2001

The huge river drainage and the profusion of wetlands, marshes, and mangroves increase productivity of near-shore fish species. Around 475 species of fishes are found in this area. Moreover, several species of crabs and 31 species of turtles and tortoises are also found. The marine fisheries contribute to 23 per cent of the total fish catch. The coastal
region also houses several mangrove ecosystems, including the Sundarbans. These mangrove forests are rich in marine and terrestrial flora and fauna.

### 3.1.4 Coastal Erosion and Accretion

The Bengal Delta was always growing horizontally (seaward) and vertically (upward) since its creation; various evidence suggests that the progradation rate was about 80-100 m/year and the sedimentation rate was about 0.5-0.6 cm/year. But in last two centuries the delta grew a little towards the sea and faced severe erosion. The back water effect is considered as one of the basic reason for coastal erosion. Back water effect is generally referred as the retardation of a river out flow by a rise in the level of water at the mouth of the river. Due to rise in sea level brackish water may even start flowing inland, in reverse direction of natural flow. In Bangladesh the back water effect is mainly seen in central coastal region, in the mouth of lower Meghna through which most of river water discharges to the Bay of Bengal. The back water effect may happen for various reasons. In Bangladesh’s coastal region the principle reasons are pointed out as: strong southwest monsoon wind in rainy season, high astronomical tides, and high storm surges. Eventually these are principle reasons for accretion as well. In addition to those reasons sea-level-rise is also considered as one of the important factor that has a long term effect on coastal erosion.

Though during last two centuries the Ganges-Brahmaputra delta did not grow significantly towards sea, but during this period Meghna estuarine delta has changed significantly. Considerable developments occurred mainly in Sandwip and adjacent islands, in Hatiya Island, in Bhola Island, and in the coastline of the Noakhali mainland.

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60 Khalequzzaman M., Environmental Hazards in the Coastal Areas of Bangladesh: Geologic Approach (Summary), *Proceeding of the 3rd International Conference on Natural and Man-made Coastal Hazards held in August 15-20,198, Mexico*, p. 37-42.


63 A number of works has been done on erosion scenario so far. For further reading: Pramanik MAH., 1983, Remote sensing applications to coastal morphological investigations in Bangladesh, Ph D Thesis, Jahangirnagar University, Savar, Dhaka.
The southern part of the Chittagong coastline did not change significantly over the years. Some accretion happened in its northern part due to closure dam on the Fani river. Earlier Sandwip Channel was nearly isolated from the distributaries but now it is tide-dominated, allowing net import of fine sediment. Noakhali coastline has been changed considerably, mainly accreted, over the years. This accretion was increased due to establishment of two crossed dams to hold the accretion. Estimation shows that during the period from 1957 to 1985 Noakhali coastline has been accreted by a land area of 52,000 ha. Besides accretion it also has faces severe erosions as well in some places specially on bankline at the Upper Shahbazpur Channel.

Sandwip is surrounded by East Hatiya Channel, the Sandwip Channel and the Urirchar (Figure 3.6). Available data show that in between 1896 to 1979 the Sandwip Island has been reduced about 50 per cent of its original size due to considerable erosion in north-western part (Table 3). Map comparisons show that erosion accelerated after 1963.

### TABLE 3: Land area in the Meghna Estuary (in sq. km)

<table>
<thead>
<tr>
<th>Year</th>
<th>Map Source</th>
<th>Hatiya</th>
<th>Sandwip</th>
<th>Shabazpur</th>
<th>Manpura</th>
<th>Others</th>
<th>Mainland</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1779</td>
<td>Delta of Ganges (Rennel)</td>
<td>370</td>
<td>479</td>
<td>730</td>
<td>179</td>
<td>150</td>
<td>2789</td>
<td>4697</td>
</tr>
<tr>
<td>1896</td>
<td>Survey of India</td>
<td>469</td>
<td>502</td>
<td>800</td>
<td>39</td>
<td>60</td>
<td>2370</td>
<td>4240</td>
</tr>
<tr>
<td>1945</td>
<td>Survey of India</td>
<td>1070</td>
<td>500</td>
<td>549</td>
<td>70</td>
<td>70</td>
<td>2650</td>
<td>4909</td>
</tr>
<tr>
<td>1959</td>
<td>Aerial Photograph</td>
<td>1030</td>
<td>391</td>
<td>339</td>
<td>80</td>
<td>101</td>
<td>2650</td>
<td>4591</td>
</tr>
<tr>
<td>1973</td>
<td>Landsat-1</td>
<td>399</td>
<td>290</td>
<td>300</td>
<td>119</td>
<td>91</td>
<td>3900</td>
<td>5099</td>
</tr>
<tr>
<td>1976</td>
<td>Landsat-2</td>
<td>399</td>
<td>269</td>
<td>300</td>
<td>130</td>
<td>98</td>
<td>3999</td>
<td>5195</td>
</tr>
<tr>
<td>1979</td>
<td>Landsat-3</td>
<td>370</td>
<td>290</td>
<td>347</td>
<td>119</td>
<td>70</td>
<td>4100</td>
<td>5296</td>
</tr>
</tbody>
</table>

Source: Pramanic 1981

### TABLE 4: Change Detection Study for the period 1960-1984 (in sq. km)

<table>
<thead>
<tr>
<th>Name of Island</th>
<th>Accretion</th>
<th>Erosion</th>
<th>Net Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bhola</td>
<td>80.06</td>
<td>360.76</td>
<td>280.70 (Erosion)</td>
</tr>
<tr>
<td>Hatiya</td>
<td>30.86</td>
<td>108.44</td>
<td>77.58 (Erosion)</td>
</tr>
<tr>
<td>Sandwip</td>
<td>0.0</td>
<td>110.46</td>
<td>110.46 (Erosion)</td>
</tr>
<tr>
<td>Manpura</td>
<td>21.29</td>
<td>99.30</td>
<td>78.02 (Erosion)</td>
</tr>
<tr>
<td>78.45 (Erosion)</td>
<td>78.02</td>
<td>375.65</td>
<td>297.63 (Erosion)</td>
</tr>
</tbody>
</table>

Source: SPARRSO Report, 1987
about 200 m per year in between 1913 and 1963 but increased to 350 m per year after 1963. On the other hand Urirchar has been accreted after 1963 and it grew from 3 sq. km in 1963 to 46 sq. km in 1981.

Hatiya Island is surrounded by the South and West Hatiya Channel and East Shahbazpur Channel (Figure 3.6). According to a report from Bangladesh Space Research and Remote Sensing Organization (SPARRSO) (Table 4) in between 1960 and 1984 Hatiya lost 108.44 sq. km due to accretion and got 30.86 sq. km due to accretion. Another study showed that during 1963-82 the erosion rate in northern tip of Hatiya was about 400m/year.64

Bhola Island is surrounded by Tetulia Channel and the North and East Shahbazpur Channel. Table 4 shows in between stipulated period Bhola lost 360.76 sq. km and gained 80.06 sq. km. On the east side of the island, near the coast of Tozumuddin, the erosion was about 3.5 km in between 1940 to 1963 and about 3 km in between 1963 to 1982.65 Basing on Landsat TM satellite images, scale of 1:100000, it was found that in between 1990 and 1995 erosion was big on the east side and accretion was big on the west and northern part of the island.66

Figure: 3.12 Erosion and accretion on the Island of Bhola between 1963-1982
Source: Siddiqi, p. 146 (modified)

In 1993, SPARRSO undertook a comparative study of accretion and erosion for the entire coast, the Meghna estuary, and two small islands- Srizonee and Char Montaz - and their surroundings. The study period was from 1976 to 1990 and remotely sensed data were used. Table 5 shows the summary of findings of that study. Noticeable aspect is that

64 Siddiki, Masroor-ul-Haq, Uttam, Bir. 1988, Land Erosion and Accretion in the Coastal Area, Bangladesh Centre for Advanced Studies, Dhaka
65 Ibid. p 146
66 Krantoz M., 1999, Coastal Erosion on the Island of Bhola, Bangladesh, Earth Science Centre, Göteborg University, p 27
though the entire coast and the Meghna estuary are relatively stable but the small islands situated in the northern side of the main land are getting larger due to accretion.

**Table 5: Comparative statement of erosion and accretion**

<table>
<thead>
<tr>
<th>Location</th>
<th>Scale</th>
<th>Period</th>
<th>Erosion (sq. km.)</th>
<th>Accretion (sq. km.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire coast</td>
<td>1:500,000</td>
<td>1976-1990</td>
<td>858</td>
<td>808</td>
</tr>
<tr>
<td>The Meghna estuary</td>
<td>1:250,000</td>
<td>1976-1990</td>
<td>764</td>
<td>744</td>
</tr>
<tr>
<td>Srizonee and surroundings</td>
<td>1:50,000</td>
<td>1984-1990</td>
<td>24</td>
<td>58</td>
</tr>
<tr>
<td>Char Montaz and surroundings</td>
<td>1:50,000</td>
<td>1984-1990</td>
<td>5</td>
<td>39</td>
</tr>
</tbody>
</table>

Source: SPARRSO 1993

Significantly all islands, situated in the central region, more specifically in the Meghna estuary, are losing lands in their northern part and growing towards south. Sometimes accretions are much higher than erosion.
3.2.1 Legal Background of Bangladesh’s Straight Baselines

The basic law of Bangladesh, the Constitution, defines the territory of Bangladesh as comprised of:

The territory of the Republic shall comprise-

- The territories which immediately before the proclamation of independence on the 26th day of March, 1971 constituted East Pakistan [and the territories referred to as included territories in the Constitution (Third Amendment) Act, 1974, but excluding the territories referred to as excluded territories in that Act; and]
- such other territories as may become included in Bangladesh.\(^{67}\)

And under the heading ‘Property of the Republic’ it stipulates that:

1. There shall vest in the Republic, in addition to any other land or property lawfully vested-
   - all minerals and other things of value underlying any land of Bangladesh;
   - all lands, minerals and other things of value underlying the ocean within the territorial waters, or the ocean over the continental shelf, of Bangladesh; and
   - any property located in Bangladesh that has no rightful owner.

2. Parliament may from time to time by law provide for the determination of the boundaries of the territory of Bangladesh and of the territorial waters and the continental shelf of Bangladesh.\(^{68}\)

Through clause 2 the Constitution confers the law-making authority regarding determination of boundaries of the territorial waters and the continental shelf of Bangladesh to the Parliament. In 1974 it passed a law, ‘Territorial Waters and Maritime Zones Act, 1974’ (see Annex I) under that clause. This law allowed the Government to declare its maritime zones through gazette notification. Section 3 of this Act deals with territorial waters of Bangladesh, and provides:

> "3. (1) The Government may, by notification in the official Gazette, declare the limits of the sea beyond the land territory and internal waters of Bangladesh which shall be the territorial waters of Bangladesh specifying in the notification the baseline:

\begin{itemize}
  \item [(a)] from which such limits shall be measured; and
\end{itemize}

\(^{67}\) Article 2, Part I, The Territory of the Republic, The Constitution of the Peoples Republic of Bangladesh

\(^{68}\) Ibid, Article 143, Part XI, Miscellaneous.
(b) the waters on the land ward side of which shall form part of the internal waters of Bangladesh.

(2) Where a single island, rock or a composite group thereof constituting the part of the territory of Bangladesh is situated seawards from the main coast of baseline, territorial water shall extend to the limits declared by notification under sub-section (1) measured from the low waterline along the coast of such island, rock or composite group.”

Under the power conferred by sub-section (1) of section 3 of the Territorial Waters and Maritime Zones Act, 1974 the Ministry of Foreign Affairs of Bangladesh issued a gazette notification69 to declare the limit of its territorial water and economic zone. In this notification the Government declared its baselines through specifying eight baseline points which are to be connected successively. The notification sets out those points as:

<table>
<thead>
<tr>
<th>Baseline point</th>
<th>Geographical Coordinates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Latitude</td>
</tr>
<tr>
<td>No. 1</td>
<td>21°12′00″N</td>
</tr>
<tr>
<td>No. 2</td>
<td>21°15′00″N</td>
</tr>
<tr>
<td>No. 3</td>
<td>21°29′00″N</td>
</tr>
<tr>
<td>No. 4</td>
<td>21°21′00″N</td>
</tr>
<tr>
<td>No. 5</td>
<td>21°11′00″N</td>
</tr>
<tr>
<td>No. 6</td>
<td>21°07′30″N</td>
</tr>
<tr>
<td>No. 7</td>
<td>21°10′00″N</td>
</tr>
<tr>
<td>No. 8</td>
<td>20°21′45″N</td>
</tr>
</tbody>
</table>

---

69 Notification No. LT-1/3/74 of the Ministry of Foreign Affairs, Dacca, of 13 April 1974, see Annex II.
3.2.2 Bangladesh’s Proposals in the Third United Nations Conference on the Law of the Sea in Respect of Drawing Straight Baselines along Deltaic Coasts:

In 1958 as Bangladesh did not exist as an independent state and consequently it did not participate in the negotiations on the Geneva Convention on the Law of the Sea. As explained in chapter 1, Bangladesh gained its independence in 1971 and became a member of United Nations General Assembly (UNGA) on 17 September 1974. Significantly, it participated in the Drafting Committee of UNCLOS III at the very first session, before getting membership of UNGA, and subsequently played an active part in the negotiation of the draft convention.

---

**Figure 3.13:** Straight baselines of Bangladesh (Source: Atlas of Straight Baselines, Part 1, Edited by Francalanci et al.)

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70 See www.un.org
On 03 July 1974, Bangladesh made its proposal on drawing straight baselines along deltaic coast for the first time to the Second Committee of UNCLOS III in Caracas emphasizing unstable characteristics of its coast. The proposal was as follows:

“In localities where no stable low-water line exists along the coast due to continual process of alluvion and sedimentation and where the seas adjacent to the coast are so shallow as to be non-navigable by other than small boats and pertain to the character of inland waters, baseline shall be drawn linking appropriate points on the sea adjacent to the coast not exceeding the 10 fathom line.”71

This proposal, taking base points on specific isobath, was not accepted by the Committee. Later, Bangladesh submitted an informal position paper putting forward a revised proposal which read as follows:

“The localities where the coast line is deeply indented and cut into or there is a fringe of islands along the coast in its immediate vicinity or if the water adjacent to the coast is marked by continual process of alluvion and sedimentation creating a highly unstable low water line the method of straight baselines joining appropriate points on the coast or the coastal waters may be employed in drawing the baseline from which the breadth of territorial sea is measured.”72

Again, the Committee did not adopt the revised proposal. At the third session (1975), the revised form of original provision was re-drafted as follows:

“In localities where the coastline is deeply indented and cut into, or if there is a fringe of islands along the coast in its immediate vicinity, the method of straight baselines joining appropriate points may be employed in drawing the baselines from which the breadth of the territorial sea is measured. Where because of the presence of a delta or other natural conditions the coastline is highly unstable, the appropriate points may be selected along the furthest seaward extent of the low-water line, notwithstanding subsequent regression of the low-water line, such

72 See Platzöder IV, p. 179
baselines shall remain effective until changed by the coastal State in accordance with the present Convention.”

Though Bangladesh consecutively categorised its coast as highly unstable due to presence of various factors the Committee viewed that all this factors are seen in all deltaic coasts. However, the committee partly accepted Bangladesh’s proposal by admitting the validity of drawing straight baselines along delta coasts. Notably, the above mentioned consolidated text used the phrase “because of the presence of a delta or other natural conditions the coastline is highly unstable” which made the presence of delta flexible by using the conjugation “or”.

At the fourth session (1976) another revision was made to the provision, reading:

“1. In localities where the coastline is deeply indented and cut into, or if there is a fringe of islands along the coast in its immediate vicinity, the method of straight baselines joining appropriate points may be employed in drawing the baselines from which the breadth of the territorial sea is measured.

2. Where because of the presence of a delta and other natural conditions the coastline is highly unstable, the appropriate points may be selected along the furthest seaward extent of the low-water line, notwithstanding subsequent regression of the low-water line, such baselines shall remain effective until changed by the coastal State in accordance with the present Convention.”

It is evident that two revisions were made to the earlier text; the single paragraph had been divided into two and the connective word “or” had been changed to “and”, which made the presence of a delta must to qualify a coast to be highly unstable.

At the sixth session (1977) Bangladesh proposed following revision of paragraph 2:

---

73 UN Documents, A/CONF.62/WP.8/Part II (ISNT, 1974), article 6, IV Official Records 152,153 (Chairman, Second Committee).
74 UN Documents, A/CONF.62/WP.8/Rev I/Part II (RSNT, 1976), article 6, V Official Records 151,154 (Chairman, Second Committee).
“2. Where because of the presence of a delta and other natural conditions, the waters adjacent to the coast are marked by continual fluvial erosion and sedimentation creating a highly unstable baseline, the baseline may be delimited by a straight line or series of straight lines connecting appropriate points of such adjacent coastal waters.” 75

This proposal was not accepted by the committee. Again at the seventh session (1978) Bangladesh proposed a revision of paragraph as follows:

“Where most part of a coastline of a State is constituted by a continuous process of sedimentation and fluvial deposits rendering the low-water line highly unstable, the method of a straight baseline joining appropriate points may be employed along the furthest seaward extent of sedimentary delta in drawing the baseline from which the breadth of the territorial sea is measured.” 76

This also was not accepted. Finally on 28 April 1982 the representative of Bangladesh to the Third United Nations Conference on the Law of the Sea, Mr. A. K. H. Morshed, submitted a letter addressing the chairmen on behalf of the Government of Bangladesh to reassert Bangladesh’s position in respect of drawing baselines. Following is excerpt from that letter:

“---- the unique configuration of its coastline associated with peculiar geomorphological and geological conditions obtaining off-shore—conditions that lead to a highly fluctuating low-water mark and areas of shallow water so unstable and variable as not to be amenable to conventional charting. Except for the channels leading to the two riverine ports of Chalna and Chittagong, the off-shore area has not historically been navigable and that situation continues to remain so. These consideration have a manifest impact on the drawing of the baseline in an area where the waters immediately off-shore have a closer affinity to the land than to the ocean.

76 See Platzöder V, p. 11.
In this background, Bangladesh proposed a formulation based upon depth criteria and bathymetric factors which in the circumstances of the case mark the limits of navigation and charting. When the Bangladesh proposal was originally made, it received substantial and favourable support from a large number of delegations and it is our estimate that such support still exists. It is in this background that the Bangladesh Government considers that article 7 of the draft convention (A/CONF.62/L.78)\textsuperscript{77} cannot preclude the founding of its baseline on depth criteria and bathymetric factors.----”

(Signed) A. K. H. Morshed

Bangladesh ratified the convention on 27 July 2001 (Annex III) mentioning at para 10 that:

“The Government of Bangladesh intends to undertake a comprehensive review of existing domestic laws and regulations with a view to harmonizing them with the provisions of the Convention.”

3.2.3 Analysis of Bangladesh’s Proposals

On 3 July 1974, in the 27th meeting of the second session of the conference, Bangladesh representative to the conference, Mr. Chowdhury, said that:

“—the straight baseline method took into account the diversity of facts and the geographical peculiarities of the coasts of littoral States, and it therefore conceded that straight baselines might be drawn following the depth method. Considerable support of that position was to be found in the Anglo-Norwegian Fisheries Case, where the ICJ had observed that a State must be allowed the latitude necessary to adapt its delimitation to practical needs and local requirements.”\textsuperscript{78}

Through the judgment of the Anglo-Norwegian Fisheries case the straight baseline method for the first time got the international recognition. The judgment broke the

\textsuperscript{77} UN Documents, A/CONF.62/.78 (Draft Convention 1981), article 7, XV Official Record, pp. 172,178

\textsuperscript{78} UN Documents, I Official Record (1974), p. 102, para. 54
rigidity of using the low-water line of a coastal State as its baseline and permitted to use straight lines when certain geographical consideration applied. Thus the Court authorised the coastal state to categorise the water on the landward side of the baseline as its internal water even if they don’t bear the general characteristics of internal water. The Judgment also authorised the use of low-tide elevations, having no permanent installations over them, as basepoints.  

79 In making this judgment the Court considered the close dependence of the territorial sea upon the land domain and viewed that the coastal State must be allowed the latitude necessary in order to be able to adapt its delimitation to practical needs and local requirement. 80 The Court’s principle consideration was the unusual geographical configuration of Norwegian coast.

Presumably Bangladesh’s interpretation on the baseline was that as the Court approved a new system of baseline that does not need to stick with the coastline always in every sinusitis. The Court authorised Norway to draw straight lines from one peak to another of its highly indented coast, from mainland to an island situated in a fringe, island to island in that fringe, and from island of that fringe to mainland, and thus the Court permitted Norway to enjoy the right on internal waters over waters lie between those islands and the main land, irrespective of their navigability. In this case the Court considered the proximity of those waters to the main land. The Court viewed that

“Along the coast are situated comparatively shallow banks, veritable under-water terraces which constitute fishing grounds where fish are particularly abundant; these grounds were known to Norwegian fishermen and exploited by them from time immemorial. In these barren regions the inhabitants of the coastal zone derive their livelihood essentially from fishing.”

81

And as regard of historic waters the Courts opinion was as follows:

79 Article 7 of Law of the Sea Convention 1982 permits to use low-tide elevations, having no permanent installations over them, under criteria of international recognition, and in case of Norway it was the recognition by the ICJ given through its judgment.

80 [1951] ICJ Rep. 116 at 133

81 Ibid, pp 127-128
“By “historic waters” are usually meant waters which are treated as internal waters but which would not have that character were it not for the existence of an historic title.”82

The Representative of Bangladesh in his speech in the 27th meeting of the Second Committee explained that Bangladesh is a coastal State with over a thousand miles of heavily indented coastline and numerous offshore islands, and the sea and its resources provides it with an essential lifeline. He further explains that Bangladesh is also a fishing nation, and a great many of its people—entire communities in some offshore island areas—depended solely on fishing for their livelihood.83 It can be understood from the explanation that the primary objective was to compare the coastal scenario of Bangladesh to that of Norway and make the coastline of Bangladesh eligible for drawing straight baselines along it. In this regard it can be mentioned that article 4(1) of Geneva Convention 1958 is not clear in defining the basepoints to be connected to draw straight baselines which mentions that “---the method of straight baselines joining appropriate points may be employed in drawing the baseline---”. It does not specify the positions-on land or on water-of basepoints. The judgment advised to select basepoints considering geographical characteristics, economic interest, historic entitlements, and local needs. Basing upon these considerations Bangladesh was of the view that article 4(1) did not cater the practical needs of Bangladesh. According to it the suitable method that may cater the need is the method of drawing straight baselines on depth criteria.

Bangladesh made its first proposal of modification of article 4 basing its arguments on some unusual geographic characteristics of its coastal region those did not covered by the aforesaid article, which were as follows:

- it does not have any stable water line
- it sees continual process of alluvion and sedimentation
- the seas adjacent to the coast are too shallow
- the seas adjacent to the coast are non navigable by other than small boats
- the seas adjacent to the coast bears the characteristics of internal water.

82 Ibid, p 130
83 UN Documents, I Official Record (1974), p. 102, para. 52
Due to heavy monsoon rainfall, cyclonic storms, and tidal surges coastal region see the severe erosion in some parts. But on the other hand the coastal region gets huge sediments from the discharges of hundreds of rivers. As a result in some parts it grows towards the sea as well. As discussed earlier, this erosion and accretion have made the coastline highly unstable that makes it impossible to draw a stable low-water line along the coast. The coastal region also consists of a large number of temporary, semi-permanent and permanent islands called chars. These temporary islands are emerging and submerging frequently. The table below shows a scenario of the coastal region which explains that in between 1973 and 1987 saw the erosion of 11 islands, but their elevations was not lost totally, resulting in making the coastal sea shallow and non-

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mainland</td>
<td>19,498</td>
<td>19,996</td>
<td>498 (accretion)</td>
</tr>
<tr>
<td>Chars/islands</td>
<td>3,534</td>
<td>3,338</td>
<td>196 (erosion)</td>
</tr>
<tr>
<td>No. of chars/islands</td>
<td>50</td>
<td>39</td>
<td>11 (loss)</td>
</tr>
</tbody>
</table>

Source: Pramanik 1988

navigable. In addition to that the adjacent sea to the coastal region gets huge continuous loads of sediment that forms mud banks across the area which make navigation impossible without demarcation. The navigation channels through mud banks change their course so frequently that it is really hard to demark accordingly. Bangladesh argued that due to presence of these situations its coastal seas are non-navigable by other than small boats.

It was clearly evident that the situations prevailing in the coastal region of Bangladesh were non-comparable to those of the Norwegian coast where all formations were static and remained unchanged for a long time, excepting the presence of high indentions in the coastline and presence of fringe of islands. Even these common characteristics are also different in their nature as the highly indented coastline of Bangladesh and adjacent
islands are frequently changing their shapes and positions.\textsuperscript{84} Therefore, Bangladesh viewed that article 4 of Geneva Convention 1958, which mostly took the views of the Anglo-Norwegian Fisheries Case, could not be appropriate for Bangladesh’s coastline. Alternatively, it made a liberal interpretation of ‘appropriate points’ mentioned in Article 4 and taking basepoints in coastal waters, which it thought to be in complete conformity with local needs, might help to solve the situation.

In view of the above considerations Bangladesh proposed a new method of drawing straight baselines by selecting basepoints on depth criteria. It seems that one of the main objectives of proposing this method was to encompass the adjacent sea waters as internal waters as it was of the opinion that those waters had the resembling characteristics of internal water. Another important objective was to draw stable baselines, independent of mobility of coastline.

The first proposal made by Bangladesh was precise in nature as it clearly stated that the basepoints should not cross the ten-fathom\textsuperscript{85} line. But the Committee was not fully convinced by the Bangladesh’s proposal though it agreed on adoption of straight baseline system in deltaic coast; it did not agree on the proposed method of selecting points in the sea on specific isobath. But Bangladesh’s next proposals were not so specific, as it mentioned ‘—the method of the straight baseline joining appropriate points on the coast or coastal waters may be employed—’\textsuperscript{86}. In this proposal the appropriate points were said to be taken in coastal waters but no specification was made regarding their positions, for example the maximum distance of those points from the coastline. So, through this proposal Bangladesh was actually proposing a method where coastal states would be given liberty to choose its basepoints in the coastal sea upon its own discretion. As it was not accepted Bangladesh proposed another proposal, slightly modified, which had more flexible wording, as it said ‘the baseline may be delimited by a straight line or series of straight lines’. Through this Bangladesh was proposing for drawing a single baseline

\textsuperscript{85} 1 fathom= 1.8288 meter
\textsuperscript{86} Supra 23
taking terminus points at two ends of the coastline, disregarding the length of the line and the general direction of the coast.

In its final proposal Bangladesh mentioned to take basepoints on the farthest seaward extent of the sedimentary delta. Presumably the basic objective behind that was to avoid the phrasing of ‘appropriate points in the coastal sea’ to make its proposal inline with the basic idea of straight baseline method.

Finally in the letter of 1982, two days before the adoption of the convention, the representative of Bangladesh mentioned that the draft article dealing with straight baseline method did not preclude the proposal that Bangladesh made during the conference. This time the representative returned to the first proposal that deals with the method based upon depth criteria and bathymetric factors. In this regard he mentioned that the proposal received and favourable support from a large number of delegations when it was first made, though this claim was not supported by India and Myanmar.

3.2.4 Neighbouring Countries’ Responses:

In response of Bangladesh Government’s reassertion of its position in respect of the drawing of baselines through the letter dated 28 April 1982 the representative from India expressed his view through a letter dated 30 April 1982 addressed to the president of the Conference; following is an excerpt from his letter:

“….

2. --- The proposal concerning the drawing of baselines in the deltaic area referred to in the aforementioned letter by the representative of Bangladesh was made as an informal suggestion with respect to the content of paragraph 2 of article 7 of the informal composite negotiating text at the seventh session of the Conference held at Geneva from 28 March to 19 May 1978. Their proposal would have allowed the establishment of straight baselines joining basepoints at sea rather than basepoints located along the coastline. With reference to their suggestion, and the claim that it had substantial support, I, as representative of India at the
Conference, had made the following statement at 104th plenary meeting on 18 May 1978:

“54. … the informal suggestion made by Bangladesh with respect to the content of paragraph 2 of article 7 (C.2/Informal meeting/6) would have the effect of establishing a new rule of international law, under which a coastal State would be able to establish straight baselines from basepoints at sea, and would therefore require wide acceptance by the international community before it could come into force. As his delegation has stated at an informal meeting of the Committee on 28 April, such a suggestion must be considered in the light of the distance from the coastline of the basepoints for the future baselines; the effect which the new baselines would have on the general direction of the coastline; the possibility that the baselines would be used in fixing the outer limits of the territorial sea or exclusive economic zone, or maritime boundaries with neighbouring coastal States; and the effects on navigation in the enclosed internal waters. It is therefore gratified that Bangladesh was willing to discuss its suggestion with the other States interested in the matter and to raise it again at the Conference’s next session. That attitude on the part of Bangladesh showed that its suggestion could not be regarded as having already obtained the substantial support to which reference was made in subparagraph 2 of paragraph 9 of document A/CONF.62/L.28.”

3. The suggestion of Bangladesh was not discussed with India after the aforementioned statement, nor has the Bangladesh suggestion been raised at the Conference since 1978, except at the present session and particularly in the form of the letter dated 28 April 1982, referred to at the outset.

4. In view of the above, it will not be correct to say that article 7 of the draft convention (A/CONF.62/L.28) cannot preclude the founding of a baseline on

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87 “Issues on which the degree of support for a particular formula or provision is so widespread and substantial as to offer a reasonable prospect of a consensus being reached”. See UN Documents, IX Official Records, p. 183
depth criteria and bathymetric factors, as stated by the representative of Bangladesh.

5. Article 7, paragraph 2, of the draft convention reads as follows:

“2. Where because of the presence of a delta and other natural conditions the coastline is highly unstable, the appropriate points may be selected along the furthest seaward extent of the low-water line and, notwithstanding subsequent regression of the low-water line, the straight baselines shall remain effective until changed by the coastal state in accordance with this convention.”

......88

In its response India did not mention or argued on the validity of Bangladesh’s proposal of taking basepoints in sea rather than on land. India mainly focussed their arguments on the claim that Bangladesh’s proposal got substantial support. Its view was that Bangladesh made its suggestion in an informal meeting only, but the issue was not discussed with other willing States. Therefore according to India’s view, the suggestion could not be considered as having substantial support and accordingly no consensus was reached on the proposed method. So, India viewed that, it is not justifiable to say that the provision did not preclude the suggestion made by Bangladesh which was not widely discussed and no consensus was reached on this issue.

Burma (now Myanmar89), the other neighbouring State of Bangladesh, responded to the reassertion made by Bangladesh on the same day through a letter dated 30 April 1982 addressed to the President of the Conference. Following is an excerpt from the letter of the representative of Burma to the Conference:

“ In his letter dated 28 April 1982 addressed to you and circulated to all delegations in document A/CONF.62/L.140 of the same date, the representative of Bangladesh asserts

89 In 1989 the name Burma has officially been changed into Myanmar.
that his delegation’s proposal concerning the establishment of a straight baselines system on the depth criteria and bathymetric factors had received, and continues to enjoy “substantial and favourable support from a large number of delegations” and further that his Government considers that “article 7 of the draft convention (A/CONF.62/L.28) cannot preclude the founding of its baselines” on such a basis.

In this connection, my delegation is of the view that the above-mentioned assertions are not borne out by the history of negotiations on the proposal at the Conference, particularly in the broadly representative informal negotiating group on baselines established during the third session. Nor are they supported by the text of article 7, paragraph 2 of the draft convention embodying the results of the said negotiations, which specifies in precise and unambiguous terms the fundamental rule that straight baselines may be drawn only from land-point to land-point, not from sea-point to sea-point.”

Myanmar clearly rejected the claim made by the representative of Bangladesh. It also gave its opinion in negative on Bangladesh’s proposal of taking basepoints on depth criteria.

3.2.5 Article 7 (2) and Bangladesh’s Straight Baselines

The Geneva Convention 1958 considered two types of coasts, which are highly indented and cut into or having fringe of islands along it, as qualifying for the adoption of the straight baseline method. In addition to those article 7(2) has considered unstable deltaic coast to adopt the same method. Article 7(2) can be divided into three parts. The first part deals with the prerequisites which are:

(a) A delta and other natural conditions have to be present in the coastal region
(b) The coastline has to be highly unstable

In other sense ‘a’ can be considered as the cause of ‘b’. The provision clearly states that the presence of a delta is mandatory but is not sufficient for adoption of the straight baseline method. Besides, other natural conditions must be present to justify the adoption. But the paragraph is not clear in defining other natural conditions. Presumably these are
the conditions commonly seen in a deltaic coast. And the second requirement is that the coast has to be highly unstable. Here the phrase ‘highly unstable’ is not well understood, as it is not clear upon which criteria the coast will be considered highly unstable. The perimeter to identify a coast highly unstable is also not clear. It is understood that a highly unstable coast will be considered for straight baseline method only when the coast is so because of presence of a delta and other natural conditions.

The second part deals with selection of basepoints. In this regard the paragraph stipulates that ‘the appropriate points may be selected along the furthest seaward extent of the low water line’. The word ‘appropriate’ is a vague word as it is not certain upon which criteria a point will be considered as appropriate; whether upon geographic reality or upon practical needs and historic perspectives. The third part is the most important part, which stipulates that ‘notwithstanding subsequent regression of the low-water line, the straight baselines shall remain effective until changed by the coastal State’. One thing is clear from the above wording that the provision is only applicable for regressing coast, or applicable for

Figure 3.14 Different stages of straight baselines in a retreating deltaic coast

90 Unstable character of a coast commonly refers to tectonic movement, but here it can be understood that it refers to rapid change in the outline of the coast. For further reading see McDonald. C., and Prescott. V., Baselines along Unstable Coasts: An Interpretation of Article 7(2), Department of Geography, University of Melbourne.

91 This provision does not cover the unstable coast that is so because of presence of ice shelves along it.
eroding or retreating delta. Advancing delta is not considered, presumably from the perspective that the claim will advance seaward accordingly and the concerned coastal State’s claim are not in stake in that case. This provision allows the coastal State to keep its baselines in their earlier positions when the coastline retreats. That means after the regression of the low-water line some basepoints of the straight baselines will be in the coastal water rather than on the land. Figure 3.11 shows the general understanding of article 7(2). And those baselines will remain effective until the coastal State changes them accordingly. Here changing or revising the baselines is quite flexible as there is no time limit within which the baselines are to be revised. It is quite natural that the coastal State will try to keep baselines in their original position for longer period. Again if the coastal State has to revise immediately after the recession of the coast in accordance with this article, then the State will gain little benefit from this provision.

Figure 3.15. Bangladesh’s straight baselines

Bangladesh proclaimed straight baselines with basepoints corresponding closely to the ten-fathom line on 13 April 1974. Total number of basepoints is eight and total length is

92 Supra 21
Approximate lengths of each of base lines are respectively 10 miles, 24 miles, 20 miles, 36 miles, 31 miles, 47 miles, and 53 miles. All baselines are 16 to 30 miles from the coastline (see figure 3.10). Bangladesh made its proclamation regarding its straight baselines just before the commencement of the third Conference on the Law of the Sea. The proclamation was not in line with the method of drawing straight baselines prescribed by the 1958 Geneva Convention. Bangladesh was of the view that the relevant article 4 of the aforesaid convention did not cover the characteristics of Bangladesh’s coastline and did not cater the practical needs of a State having such coasts like Bangladesh. As article 4 was adopted almost verbatim from the judgment of the Anglo-Norwegian fisheries case it mostly covered the situation of a coast having characteristics similar to the coast of Norway. But Bangladesh’s coast is totally different from the coast of Norway. From this aspect Bangladesh believed that due to presence of peculiar geographic conditions in its coast it would be permitted to draw straight baselines on depth criteria to meet the local needs. It was presumably confident in the outcome of the negotiations resumed on drawing straight baselines in a highly unstable deltaic coast. But the outcome did not support the depth criteria.

Delta is not just a depositional land forms that protrude from the coast. According to Wright a delta is: “Subaerial and subaqueous accumulations of river-derived sediment deposited at the coast when a stream decelerates by entering and interacting with a larger receiving body of water.” As seen in figure Bengal delta is a combination of subaerial delta and a huge area of subaqueous delta submerged under coastal seas. Presumably, Bangladesh would have anticipated the emergence of the submerged delta above see level on the form of accretions to the mainland, islands or low-tide elevations. However, the delta was equated with a shoal in its submerged state. Bangladesh argued that the

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94 The Bangladesh Observer (Dhaka), 9 May 1977, Editorial.
95 Wright. L., “Deltas,” in The Encyclopaedia of Beaches and Coastal Environments, ed. M. L. Schwartz (Pennsylvania: Hutchinson Ross, 1982), pp. 358-368. Also see see McDonald. C., and Prescott. V., Baselines along Unstable Coasts: An Interpretation of Article 7(2), Department of Geography, University of Melbourne
96 Jayewardene H., The Regime of Islands in International Law, Publication on Ocean Development, Vol. 15 (Leiden, Boston: M. Nijhoff), 1990
provision ignored the submerged sedimentary delta which is a natural prolongation of estuarine delta.

![Satellite Image of Bangladesh’s Coastline](image)

**Figure 3.16:** Satellite Image of Bangladesh’s Coastline

The coastline can be unstable by advancing or retreating or doing both. Bangladesh’s coastline manifests all. Basing on this unstable characteristic of its coastline Bangladesh tried to device a method of drawing stable baselines those do not need to be revised with the shift of coastline each time. It was an attempt to cover the fluctuation of coastline within the proclaimed baseline. On the other hand article 7 deals with only retreating coast and permits the coastal State to keep its baselines in their original positions for an uncertain period, and certainly during that period some or all of the basepoints will be in the sea.

The words “the appropriate points” used in this paragraph are supposed to be related with the similar words used in paragraph 7(1). According to first paragraph of article 7...
appropriate points are to be taken at the peaks of indentions; at islands and low-tide elevations- having permanent installations over them- situated in a fringe of islands. But in case of deltaic coast the selection of appropriate points is ambiguous if the coast is not like the coast described in first paragraph. If paragraph 7(2) is considered as subordinate to paragraph 7(1) then the retreating deltaic coast has to be highly indented or has to have a fringe of islands. Now, if the deltaic coast is highly indented or fringed by a number of islands then the necessity of second paragraph is not clear as straight baselines can be drawn in that deltaic coast under first paragraph. The only benefit given to the retreating coast is that the baselines will remain in their original position until further rearrangement. This benefit also means nothing if the coast is fringed by islands and straight baselines are independent of coasts, drawn from one island to another. On the other hand, if the retreating deltaic coast is neither highly indented nor fringed by islands then this paragraph can not give any protection to the interest of that coast, which is against the objective of inclusion of this paragraph.

For instance, let us consider that this paragraph is applicable for both normal deltaic coast and highly indented deltaic coast. Then the important issue is what points will be the appropriate points to draw straight baselines. The proposition in this case is the furthest seaward extent of the low-water line of that deltaic coast. It is easy to determine if the low water line does not find any low-tide elevation along its course. But, if the deltaic coast bears a low-tide elevation which is not situated in fringe of island and has no permanent installation over it then the wording of this paragraph is inadequate to cover the situation. Geographically that low-tide elevation is a part of natural prolongation of that delta.

Another important fact is that in a deltaic coast new islands emerge due to accumulation of sediment carried by the river. In the same time it also lose islands due to presence of different natural conditions, as mentioned earlier in this chapter. As a result it is hard to fix stable basepoints as well as stable baselines. This paragraph does not cover this problem as well. More specifically, the provision coveres only the unstable characteristics of the coastline, not the unstable characteristics of the coastal seas and the
geographical needs. Bangladesh’s proposal and the existing baselines are drawn considering unstable characteristics of the shoreline as well as of the coastal sea.

3.3 Conclusion

Bangladesh is geographically a disadvantaged State, having a convex highly indented unstable coastline and shallow non navigable coastal sea; while its big adjacent neighbour, India, is in advantageous position with much longer concave coastline. This geographical reality confers the shape of baselines a great importance in delimiting maritime zones, which eventually affects the opening of Bangladesh’s maritime zones to high seas.

It is quite clear that Article 7(2) was adopted to cover the geomorphological realities of a deltaic coast with the specific case of the Ganges-Brahmaputra River delta in mind.97 Bangladesh took the initiative to include a provision that will protect the interest of coastal states having deltaic coast. The proposal was to draw baselines following a certain depth contour to cover all unusual characteristics of the coast. The main objective of the proposed method was to obtain stable baselines in a highly unstable coast. Bangladesh based its proposal on the view that the International Court of Justice opined to give coastal State necessary latitude while drawing baselines to cover the practical requirements and local needs.

Though the geomorphological characteristics of a deltaic coast is totally different from that of Norwegian coast, the proposal was introduced in a Article that was originated to cater the needs of a coast that is similar to the coast of Norway. For example, a deltaic coast may not have low-tide elevations but will have high submerged elevations of coastal sea bed that can be hazardous for coastal navigation; moreover no natural formation on coastal sea bed is stable, which will ultimately worsen the geographical stability of the coastal area. In hindsight, it could be argued that it would have been better that this type of situation was covered by a different paragraph in the convention.

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In particular, the second paragraph as subordinate to the first paragraph actually diminishes its clarity as a legal norm.

Though Bangladesh declared its straight baselines much before enactment of the Law of the Sea Convention 1982, present situation suggests that it is the only deltaic coastal State that, more or less, tried to follow the spirit of Article 7(2). Though the article precludes something to protect the interest of geographically disadvantaged retreating delta, it is beyond doubt that Article 7(2) does not preclude what Bangladesh actually proposed. Bangladesh, in some sense, was quite unfortunate that it could not muster sufficient support for its proposal despite the fact that it had considerable merit and had the potential to receive a considerable amount of consensus from other delegations. Bangladesh was unlucky also in the sense that some other States like Norway, the Bahamas, and Malaysia succeeded to incorporate some provisions in the Convention for their implicit benefit, but in case of Bangladesh it was not. In short, the provisions in the Convention failed to deliver Bangladesh the relief it requested. But at the same time it has pointed that one leading international law authority, Mr. M. Habibur Rahman, has argued that that the provisions in the Convention do not prohibit adopting the method of drawing straight baselines on depth criteria; rather it can be said that the conventional rule permits to take basepoints on the low-water line of the coast.

State practice on straight baselines varies enormously (Roach, churchil, Soons). Indeed, a recent review of state practice reveals that deviations from the prescribed method are common. Instead of strictly following the prescribed method most of the States have given much emphasis on local needs and economic interests while assessing their baselines. As stated previously, State practice supports the view that the legal norms set out in Article 7 are not binding rules of customary international law.

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98 McDonald. C., and Prescott. V., *Baselines along Unstable Coasts: An Interpretation of Article 7(2)*, Department of Geography, University of Melbourne
99 Supra 48
100 Supra 52
101 Rahman. H., Delimitation of Maritime Boundaries, Department of Law, Rajshahi University, p. 283
Chapter Four

Article 76 and Bangladesh’s Straight Baselines

Beyond its geographical entity the continental shelf has got the recognition of legal entity by the Law of the Sea Convention 1982; which declares the legal right of a coastal State to claim a portion of the extended continental shelf of its own to extract the riches the shelf possess. The regime of the continental shelf has been set out by Part VI (articles 76 to 85) and Annex II of the Convention (together with Annex II of the Final Act). The regime covers, among others, the legal definition of continental shelf and the methods to be followed to delineate the outer limit of it. Baseline is one of the important factors of delineation of the outer limit of the continental margin. This chapter deals with definition of continental shelf, formulas and constraints concerned to delineation of the outer limit of the shelf as prescribed in Article 76. This chapter also discusses the geographic characteristics of Bangladesh’s continental shelf. Finally it deals with the significance of Bangladesh’s baselines in delineating the outer limit of its legal continental shelf.

4.1 The continental shelf according to article 76 of the LOSC

4.1.A Definition:
Article 76, definition of the continental shelf, comprising 10 paragraphs, mostly deals with the delineation of outer limit of the continental shelf. Among those paragraphs 1 and 3 provide the legal definition of the continental shelf. According to paragraph 1, a coastal State’s continental shelf includes the seabed and subsoil of the natural prolongation of the submarine areas extends beyond the territorial sea. Disregarding the position of the outer edge of the continental margin, a coastal State can claim a distance of 200 nm from its baselines as its continental shelf. If the outer edge of the continental margin extends beyond that limit, the State can increase its claim accordingly but not beyond the limit described in this article.
Paragraph 3 defines the continental margin of a coastal State as consisting of the seabed and subsoil of the shelf, slope and rise\textsuperscript{102}, but not deep ocean floor with its oceanic ridges or the subsoil thereof.

It is evident that in every situation a coastal State can claim a legal continental shelf up to a distance of 200 nm from its baselines, which means it disregards whether the continental shelf geographically reaches that extent. So the legal definition of a coastal State’s continental shelf includes the deep ocean floor if it is situated within 200 nm limit (Figure 4.1). In other cases where the outer edge of the continental margin extends beyond the 200 nm limit, coastal States may include the deep ocean floor with its oceanic ridges or the subsoil thereof as part of their continental shelves.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure4.1.png}
\caption{Legal continental shelf of a coastal State according to article 76 (1) when the outer edge of the continental margin does not extend beyond 200 nm from the baseline.}
\end{figure}

\textsuperscript{102} According to geologic description made by the International Hydrographic Organization (IHO) “Continental slope” is the part of the continental margin that lies between the shelf and the rise. The gradients are usually greater than 1.5 degrees. “Continental rise” is that part of the continental margin lying between the continental slope and the deep ocean floor. It usually has a gradient of 0.5 degrees. See International Hydrographic Organization, \textit{A Manual of Technical Aspects of the United Nations Convention on the Law of the Sea-1982}, Special Publication. No. 51 (1990), at 4, 12-13.
4.1.B Delineation:
If the outer limit of the continental margin does not extend beyond 200 nm from the baselines, the delineation of the continental shelf is quite simple; the outer limit of the continental shelf will be the line(s) which run parallel to the baseline(s) keeping a distance of 200 nm. But when the continental margin reaches beyond 200nm and a coastal State wishes to avail itself of an extended continental shelf, it is required to follow the delineation criteria set forth in article 76.

Formula
Paragraph 4 of article 76 reads as follows:

(a) For the purposes of this convention, the coastal State shall establish the outer edge of the continental margin wherever the margin extends beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured, by either:

(i) a line delineated in accordance with paragraph 7 by reference to the outermost fixed points at each of which the thickness of sedimentary rocks is at least 1 per cent of the shortest distance from such points to the foot of the continental slope; or

(ii) a line delineated in accordance with paragraph 7 by reference to fixed points not more than 60 nautical miles from the foot of the continental slope.

(b) In the absence of evidence to the contrary, the foot of the continental slope shall be determined as the point of maximum change in the gradient at its base.

This paragraph enumerates two separate formulas to be followed by the coastal States as they delineate the outer limits of the continental margin. These two formulas can be named as “the sediment thickness formula” and “the distance formula”.

The sediment thickness formula, commonly referred to as the ‘Irish formula’ developed by P. R. Gardiner, an Irish geologist, to ensure the extended sovereign rights of a coastal
State to a major portion of the continental rise where significant hydrocarbon resources were expected to exist. The basic idea behind this formula is that a coastal State may take fixed points on the continental rise as the outermost point of its continental shelf in which points the sediment thickness is at least 1% of the shortest distance from such points to the foot of the continental slope (Figure 4.2). The formula is:

$$ b \geq \frac{d}{100} $$

where, $b$ – the sediment thickness, and $d$ – the shortest distance of the point from the foot of the continental slope.

It is generally predicted that

$$ b \propto \frac{1}{d} $$

that is, the sediment thickness decreases with the increase in the distance of a point from the foot of the continental slope. This means that the furthest permissible point is a point where $b = d/100$ (point B in figure 4.2).

Figure 4.2  Illustration of sediment thickness formula
The distance formula, also known as the *Hedberg formula*\textsuperscript{103}, named after an American geologist Hollis Hedberg, is simpler as no measurement of sediment thickness is required to delineate the outer limit of the continental margin. The idea is that the coastal State may fix some points on the continental rise to draw the delineating line of the outer limit which are 60 nm away from the foot of the continental slope (figure 4.3). Thus, the delimiting lines drawn following this formula run parallel to the foot-line of the continental slope.

![Figure 4.3 The distance formula](image)

Though these two formulas give different outcomes, in one aspect they show similarity. Both of the formulas use the foot of the continental slope as the base points from where the distances of the points on the continental rise are measured. So, in delineating the outer limit of the continental shelf, the first step is locating the foot of the continental slope. According to article 76 paragraph 4(b) the foot of the continental slope at its base is the point where the change of gradient is maximum. Normally the maximum change in

gradient happens at the base of the continental slope where the continental slope and the continental rise join\textsuperscript{104}. But the aforesaid paragraph also mentions that the method for determining the foot of the continental slope applies “in the absence of evidence to the contrary”. Thus the paragraph admits that there may be some situation where the foot of the slope does not exist, or cannot be found, as a physiographic feature within the base region\textsuperscript{105}.

Evidence to the contrary is not well understood\textsuperscript{106}. General prediction is that the intention of that phrasing was to allow separation of oceanic and continental crusts, which would require geological and geophysical evidence.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{continental_margin.png}
\caption{Geographical understanding of continental margin.}
\end{figure}

\textsuperscript{104} In paragraph 5.4.5 of the CLCS Guidelines the Commission defines the base of the continental slope as a region where the lower part of the slope merges into the top of the continental rise, or into the top of the deep ocean floor where a continental rise does not exist.

\textsuperscript{105} CLCS Guidelines suggests that in this case the CLCS will want to examine the results of the search for the foot of the slope as maximum change in gradient.

\textsuperscript{106} Paragraph 6.3.1 of the CLCS Guidelines states: “Evidence to the contrary to the general rule in article 76, paragraph 4(b), is interpreted by the Commission as a provision designed to allow coastal States to use the best geological and geophysical evidence available to them to locate the foot of the continental slope at its base when the geomorphological evidence given by the maximum change in the gradient does not or cannot locate reliably the foot of the continental slope.”
**Constraints:**

Paragraph 5 of article 76 mentions:

The fixed points comprising the line of the outer limits of the continental shelf on the seabed, drawn in accordance with paragraph 4 (a)(i) and (ii), either shall not exceed 350 nautical miles from the baselines from which the breadth of the territorial sea is measured or shall not exceed 100 nautical miles from the 2,500 metre isobath, which is a line connecting the depth of 2,500 metres.

Paragraph 5 provides two criteria for constraining the outer margin of coastal States’ continental shelves.

**Constraint ‘A’:** This criterion is solely based on distance. It restricts the outer limit of the continental shelf to a distance of 350 nm from the baselines (Figure 4.5). This criterion disregards the geographical formation of the continental shelf, though it depends on the situation emerging due to following the formulae mentioned in paragraph 4. That means, this constraint will be effective only when either the sediment thickness formula line or the distance formula line crosses the limit fixed by this constraint. In that case, the delineation line may follow the line of constraint ‘A’ if it covers more area than the line of constraint ‘B’; but it must leave the formula line.

![Figure 4.5 Constraint ‘A’: Maximum permissible outer limit of the continental shelf is 350 nm from the baseline.](image-url)
**Constraint B:** The second criterion is based on depth and distances both. This criterion restricts the outer limit of coastal States’ continental shelves to a distance of 100 nm from the 2500 metre isobath (Figure 4.6). It means that, coastal States’ continental shelves must not cross the line of constraint ‘B’ even if either of the formula lines crosses the constraint line, unless the line of constraint ‘A’ covers more area than the area covered by the line of constraint ‘B’.

![Figure 4.6 Constraint ‘B’: the maximum permissible outer limit of the continental shelf is 100 nm from 2500 m isobath line](image)

Though the paragraph establishes two constraints for restraining the outer limits of the continental shelf, the coastal States can choose to apply either one or both to delineate the outer limit of its extended continental shelf hereby deriving maximum benefit. In other words, coastal State may apply the first criterion in some parts and the second in other parts, they are not bound to apply a single criterion for the whole delineation.

Figure 4.7 shows a plain view of delineation of outer limit of the legal continental shelf. Dotted line ‘a’ is the 2500 meter isobath line, and ‘b’ is the foot of the continental shelf. Line ‘c’ connects the points where the sediment thickness is 1% of the distance from the foot of the continental slope. Line’d’ is 60 nm away from the foot of the continental slope, line ‘e’ is at a distance of 200nm from the baselines. Line ‘f’ and line ‘g’ are
respectively 100nm away from the 2500metres isobath line and 350 nm away from the baselines. According to paragraph 4 of article 76, the line at a distance of 200 nm away from the baseline will be the legal outer limit of the continental margin wherever the outer limit of the continental margin does not reach beyond 200nm. In the figure, this situation is represented by segment AB, where both line ‘c’ and line’d’ are inside the 200nm line. In segment BC, the delineating line follows line’d’ as it gives the maximum benefit to the coastal State. In segment CD, the delineating line leaves line’d’ and follows line ‘c’ as the State has the liberty to choose either of the lines. Following the line ‘c’ the delineation line stops at point ‘D’ as this is the farthest permissible point, and beyond that point it will cross the constraint ‘B’ line. One factor is noteworthy: the delineation line has already crossed the limit of 350 nm from the baseline, but as coastal Sates are allowed to chose either of the two options it is presumable that the State will choose line ‘f’ in this situation. So, from point D to E the line follows line ‘f’. Then, from point E the line may follow either line ‘f’ or line ‘g’, but line ‘g’ serves best in this situation. From F to G, it follows the formula line ‘c’ and from G to H it follows the formula line ‘d’.

Figure 4.7  Delineation of outer limit of the continental shelf
4.1.C Correlation of delineation of continental shelf with Baselines

The baselines of a coastal State play a significant role in delineating all maritime claims; except for continental shelf, all other maritime claims are measured only from the baseline. While delineating the continental shelf, measuring the limit from the baselines is one of the options that a coastal State may employ. Even though, baselines are a key factor in delineating the legal outer limit of the continental shelf.

The basic requirement being in a position to declare an extended continental shelf is that the geographical outer limit of the continental margin has to extend beyond 200nm from the baselines. So, if the natural prolongation of the continental shelf does not cross the limit of 200nm the legal outer limit of the continental shelf will run parallel to the baseline. In that case, the characteristics of the delineating line fully depend on the characteristics of the baselines.

When the natural prolongation of the land mass reaches beyond 200nm, the delineation line becomes relatively independent of the shape and position of baselines. Both of the two formulas use the geographical characteristics of the continental shelf instead of baselines. Both formulas use the foot of the slope of the continental slope as the basepoint from which to determine the furthest point of the legal continental shelf.

However, one of the two constraint formulas stipulates that the outer limit of the continental shelf shall not cross the 350nm limit from the baselines. But this constraint can also be bypassed if the other constraint covers more area inside; that is, if the 2500metres isobath ± 100nm line is wider than the 350nm line. In such a situation it is quite normal for the coastal State to use the second constraint instead of first, so as to derive a maximum benefit of the situation.
4.2 The Geographical Characteristics of Bangladesh’s Continental Shelf

The Bengal basin, which today incorporates the majority of Bangladesh and part of eastern India, was created during the late Mesozoic (ca. 125 Ma) as the continental landmass of the Gondwana fragmented (Lindsay, 1991). Subsequent convergence and collision of the Indian and Eurasian plates resulted in formation of the Himalayan ranges which is the major source of sediment to the Bay of Bengal. The uplift of the Himalayas and their erosion resulted in the development of the Bengal fan over the Bay of Bengal ocean floor.

Figure 4.9 The Bengal Fan (Source: Curray, 93)
The Bengal Fan is the largest submarine fan in the world. It has an area approximately $2.8 - 3.0 \times 10^6 \text{ km}^2$, not including the Nicobar Fan, and its length is between 2800 and 3000 km. Its maximum width is 1430 km at 15°N and the narrowest part is 830 km at 6°N. Depth at its apex and its distal end are 1400 m and almost 5000m, respectively. The fan volume is about $12.5 \times 10^6 \text{ km}^3$, and the mass of the sediments and metasediments in the fan is about $2.88 \times 10^{16} \text{ t}$. Though the Fan is relatively smooth when viewed as a whole, it is marked by a series of channels or fan valleys that are open for various distances along the length of the fan. Based on the gradients of the central ‘active’ valley, and of the fan surface, the fan is divided into three divisions, namely the upper fan, the middle fan, and the lower fan. The average valley gradient in the upper fan is about 2.39 m/km and the fan gradient is about 5.7 m/km. In the middle fan, the average gradients of

both fan and fan valley are about 1.68 m/km, and the valleys are smaller in cross-sectional area. In lower fan, the average gradient is below 1 m/km. The boundaries between the upper, middle, and lower fan are approximately 2250 m and 2900 m contours, respectively. The size, morphology, and structure of the fan valleys on the upper fan show significant difference with those of the middle and lower fan regions.

Figure 4.11 Physiographic diagram of the Bay of Bengal (Source: Curray et al, 03)

The Bengal shelf forms the northeastern end of the Bay of Bengal. It lies between the estuary of the world’s largest river system (in terms of sediment discharge) and the world’s largest deep sea fan. Major physiographic features of the shelf off the Ganges-
Brahmaputra river mouths are broad, shallow, flat shoals extending about 100 km offshore (inner shelf) to the 20m isobath, a submarine delta front with a gradient of 0.20° to 0.27° between 20m to 80m water depth (middle shelf), and a flat peneplane between water depths of 80m down to the shelf break at about 150m (outer shelf). In the west the submarine delta is bounded by the steep and up to 1000m deep canyon ‘Swatch of No Ground’ which sharply incises the shelf at a distance of 130 km from the shelf edge. In the east the delta is bounded by a shallow depression ‘Hatia Trough’ paralleling the Chittagong coast.

The Swatch of No Ground is the only active submarine canyon in the present submarine drainage system of the Bay of Bengal and the Bengal Fan, though in the past some other
submarine canyons also cut into this shelf. The Swatch on No Ground indents the shelf to within 30km of the present coastline, and the canyon head is about 100km east of the Ganges-Brahmaputra river mouth - the principal source of sediments to the Bengal basin. Change in relative position of Canyon head and river mouth occurred during the geologic past, but the present position has been prevailing for at least last 200 years\textsuperscript{108}. Since then, a subaqueous delta front has developed on the eastern shelf, prograding at a rate of \(\sim 15\text{ma}^{-1}\) or more\textsuperscript{109}.

The Ganges-Brahmaputra river discharges huge amounts of sediments onto the eastern Bengal shelf, where tide and storm driven processes distribute the sediments to major depositional areas on the shelf. A sediment budget, calculated on the basis of geochronological and geophysical investigations, shows the following partitioning of the sediment load estimated to be 1 billion tons at river gauging station \(\sim 300\) km inland of the coast\textsuperscript{110}:

a) 30-39\% is sequestered landward of the ocean in the huge river flood plain\textsuperscript{111};

b) 21\% is deposited in the topset beds of the subaqueous delta near the river mouth\textsuperscript{112}, and seaward progradation of the subaqueous delta front incorporates 20\% of the river load\textsuperscript{113}; and

c) the remaining 20-29\% probably reaches the Swatch of No Ground\textsuperscript{114}.

The width of the continental shelf off the coast of Bangladesh varies considerably. Between Hiron Point and the Swatch of No Ground, the continental shelf is less


\textsuperscript{110} Milliman, J.D., Syvitski, P.M., 1992. Geomorphic/tectonic control of sediment discharge to the ocean: the importance of small mountainous rivers. \textit{Journal of Geology} 100, 524-544.


than 100 km while off the coast of Cox’s Bazar it is more than 250 km. Most of the continental shelf of Bangladesh is covered by silt and clay. The eastern continental margin off shore of Chittagong, Cox’s Bazar, and Teknaf behaves like a convergent continental margin where the Indian Plate subducted under the Burmese Plate and a foreland type of basin formed west of the present day suture line. These plates are tectonically quite active. On the other hand, the south coast continental margin of Bangladesh behaves like a Passive Continental Margin, which is tectonically less active.

4.3 Significance of Bangladesh’s Baselines in Delineating the Outer Limit of its Continental Shelf

From the definition we know the baseline is the line from which coastal State’s maritime zones are measured. The outer limit of the territorial sea and EEZ are strictly measured from the baseline, and for that reason the delineating line of the outer limit of those zones run parallel to the baselines. But in case of delineating the outer limit of the continental shelf States can choose from the options provided for in article 72 of the LOSC so as to gain the maximum benefit of the geographic reality.

The question of delineating the outer limit of the continental shelf arises only when the natural prolongation of the continental shelf crosses the 200 nm limit measured from the base line. Otherwise, the legal continental shelf of a coastal State covers the same area as the economic zone does. In such cases the shape and position of baselines play key role as distances of all points of the delineating line are measured from the baselines.

Natural prolongation of Bangladesh’s continental shelf reaches far beyond the limit of 200 nm, for which Bangladesh needs to follow the set criteria enumerated in article 76 while delineating the outer limit of its legal continental shelf. Among the four criteria that a coastal State should follow, only one deals with baselines, i.e. the outer limit of the continental shelf shall not reach beyond 350 nm from the baseline. And the article also provides an alternate option which permits a State to extend its continental shelf up to 100 nm from the 2500m isobath line.
It is clear that the position of the baseline is significant only when the line of constraint ‘A’ intersects the line of constraint ‘B’ or covers more area. From the figures of Bangladesh’s continental shelf it can be seen that the 2500 m isobath line is too far from the shoreline and also from the existing baseline. It is also evident that the constraint ‘A’ line is within the area covered by the constraint ‘B’ line whether the distances are measured from the shoreline or proposed baselines. As the second constraint gives Bangladesh maximum benefit and covers the maximum area, it is quite clear that Bangladesh will adopt the second constraint in whole delineation. For that reason it can be inferred that the delineation line of the outer limit of the continental shelf will not be dependent on its baselines.

Figure 4.13 Equidistant lines drawn in the coastal sea of Bangladesh to delimit its maritime zones (Source: Prescot, 2005).
But when the question of delimitation arises the baselines do have significant role. Bangladesh is situated on the tip of the concave north coast of Bay of Bengal which geographically puts Bangladesh in a disadvantageous position. The equidistant lines those are drawn to delimit the maritime boundaries with adjacent neighbors form a cone, and boundaries with Myanmar and India meet at a tri-junction near 19°5′ N and 90°05′ E which is only 167 nm from the most seaward point of Bangladesh\(^\text{115}\). That means the delimitation lines meet within the permissible EEZ of Bangladesh, closing the opening of Bangladesh’s coast to high seas. The important question is how much Bangladesh will get if the equidistant lines are drawn considering the existing straight baselines of Bangladesh. The answer is not so optimistic, because this will also end in a cone. The junction point will shift little south giving little more of the continental shelf. But it is clear that the equidistant lines leave little room to apply article 76 in delineating Bangladesh’s continental shelf.

### 4.4 Conclusion

Delineation of the outer limit of a coastal State’s continental shelf depends mostly on the geographic nature of the coast. The natural prolongation of Bangladesh’s land mass reaches far beyond of 200 nm limit which qualifies it to claim an extended continental shelf. This situation should lead Bangladesh to prefer to select the constraint ‘B’ as it offers more area for Bangladesh. Though Bangladesh’s proposed baselines are a few miles seaward from the coastline, it does not help in any part of the delineation line to select constraint ‘B’. But for the case of delimitation of maritime zones with neighbouring States, the position and shape of baselines play an important role. Geographic location and the shape of Bangladesh’s coastline suggest that equidistant lines can not be the proper method of delimitation; because this method deprives Bangladesh from the extended continental shelf, which is natural prolongation of its delta. Bangladesh argues for a method based on equitable solution that will consider the geographical characteristics and practical needs of the States, and in devising such method baselines will certainly play significant role.

Chapter Five

Final Comments

Bangladesh, one of the most densely populated countries in the world, has a huge population of more than one hundred and forty millions residing on its meager land area. Its economy is based on agriculture with most of the population engaged in agriculture for their livelihoods. It is quite clear that to improve the overall condition of the present economy of Bangladesh diversification, of products is needed, and it has to reduce its dependency on agriculture. On the other hand, the sea is rich with many minerals, living and nonliving resources, in addition to fishes. A resource poor country with a huge population, Bangladesh must make the most of whatever resources it is able to lay claim to within its geographical boundary.

Bangladesh has already claimed its maritime zones measuring from its proposed straight baselines; but it could not reach any agreement with its neighbours on the matter of delimitation, consequently no delimitation lines exist. As Bangladesh’s proposed baselines are not approved by its neighbouring States, it is also not possible to move forward with delimitation issues bypassing the baseline issues. As a result, the claims of Bangladesh remain only claims; Bangladesh can not exploit the full potential of its maritime area.

Recent satellite images of the continental shelf of India and Bangladesh in the Bay of Bengal have raised hopes of emergence of new land in the sea. Bangladesh is hopeful of emergence of huge area from its coastal sea. It has also tried to get foreign assistance for land reclamation due to the fast depletion of agricultural land in the country. Both Bangladesh and India are eager to get their respective stakes from the emerged land. Bangladesh opines that every year it looses a huge land area due to river erosion; the sediments reaches the Bay of Bengal are mostly eroded land of Bangladesh. It also opines that India does not have the continental shelf that develops with the kind of accretion that
takes place along the Bangladesh coastline. On the other hand, India claims that the sea is continuously devouring its land shoreline. Although both parties have met several times in attempts to resolve maritime boundary issues, no agreements have been reached thus far.

South Talpatty Island is another important issue in maritime delimitation between Bangladesh and India. Both Bangladesh and India claim sovereignty over the island lying on the border between the two States. It emerged more than two decades ago, but the matter of sovereignty remained unresolved. The island remains a no-mans land and is uninhabited. Reaching a resolution on the Talpatty issue is extremely vital; otherwise it is not possible to reach any agreement on delimitation issues. Moreover, the island generates its own territorial sea, exclusive economic zone, and continental shelf. With regard to the baselines, the island is located inside the baselines of Bangladesh; the first basepoint is miles away from it towards the sea. Thus, the position of the island will not create any difference in Bangladesh’s claim over territorial sea and exclusive economic zone unless the basepoint is repositioned on the island. But the island will certainly affect the delimitation of continental shelf, as it generates a continental shelf of its own.

The lines of equidistance to delimit the maritime boundaries of Bangladesh, India, and Myanmar may be equitable in regard of the water column; but there is no justifiable reason why Bangladesh will not be entitled to the natural prolongation of the Ganges delta, while most of the sediment loads supplied to the Bengal Basin are carried by Ganges-Brahmaputra river and discharges through Bangladesh. Therefore, Bangladesh and its neighbouring countries must find an equitable solution which is not based on equidistant lines but on the geographical reality.

To formulate such solutions Bangladesh first needs to resolve the baseline issue with its neighbours. Though Bangladesh has proposed basepoints which reflect the geographical reality of the coastal region and the emergence of new land, it will not help in delimitation negotiations with its neighbours unless they approve the basepoints. State practice regarding baseline issues shows large variance and State practice supports the
view that the legal norms set out in article 7 are not binding rules of customary international law. But it is also clear that Bangladesh has to take extensive initiatives to get the approval of its neighbours on baseline issues if it wishes to reach a quick solution of the present situation.
ANNEX I

(Source: National Legislation - DOALOS/OLA - United Nations)


An act to provide for the declaration of the territorial waters and maritime zones.

Whereas clause (2) of Article 143 of the Constitution provides that Parliament may, from time to time, by law provide for the determination of the territorial waters and the continental shelf of Bangladesh;

And whereas it is necessary to provide for the declaration of the territorial waters, continental shelf and other maritime zones and for matter ancillary thereto;

It is hereby enacted as follows:

Short title

1. This Act may be called the Territorial Waters and Maritime Zones Act, 1974.

Definitions

2. In this Act, unless there is anything repugnant to the subject or context:

(a) "conservation zone" means a conservation zone established under section 6;

(b) "contiguous zone" means the zone of the high seas declared by section 4 to be the contiguous zone of Bangladesh;

(c) "continental shelf" means the continental shelf of Bangladesh referred to in section 7;

(d) "economic zone" means the zone of the high seas declared under section 5 to be the economic zone of Bangladesh;

(e) "territorial waters" means the limits of sea declared under section 3 to be the territorial waters of Bangladesh.

Territorial waters

3. (1) The Government may, by notification in the official Gazette, declare the limits of the sea beyond the land territory and internal waters of Bangladesh which shall be the territorial waters of Bangladesh specifying in the notification the baseline:

(a) from which such limits shall be measured; and

(b) the waters on the landward side of which shall form part of the internal waters of Bangladesh.

(2) Where a single island, rock or a composite group thereof constituting the part of the territory of Bangladesh is situated seawards from the main coast or baseline, territorial waters shall extend to the limits declared by notification under sub-section (1) measured from the low waterline along the coast of such island, rock or composite group.

(3) The Sovereignty of the Republic extends to the territorial waters as well as to the air space over and the
bed and subsoil of, such waters.

(4) No foreign ship shall, unless it enjoys the right of the innocent passage, pass through the territorial waters.

(5) Foreign ship having the right of innocent passage through the territorial waters shall, while exercising such right, observe the laws and rules in force in Bangladesh.

(6) The Government may, by notification in the official Gazette, suspend, in the specified areas of the territorial waters, the innocent passage of any ship if it is of opinion that such suspension is necessary for the security of the Republic.

(7) No foreign warship shall pass through the territorial waters except with the previous permission of the Government.

(8) The Government may take such steps as may be necessary:

(a) to prevent the passage through the territorial waters of any foreign ship having no right of innocent passage;

(b) to prevent and punish the contravention of any law or rule in force in Bangladesh by any foreign ship exercising the right of innocent passage;

(c) to prevent the passage of any foreign warship without previous permission of Government; and

(d) to prevent and punish any activity which is prejudicial to the security or interest of the Republic.

Explanation - In this section "warship" includes any surface or sub-surface vessel or craft which is or may be used for the purpose of naval warfare.

Contiguous zone

4. (1) The zone of the high seas contiguous to the territorial waters and extending seawards to a line six nautical miles measured from the outer limits of the territorial waters is hereby declared to be the contiguous zone of Bangladesh.

(2) The Government may exercise such powers and take such measures in or in respect of the contiguous zone as it may consider necessary to prevent and punish the contravention of, and attempt to contravene, any law or regulation in force in Bangladesh relating to:

(a) the security of the Republic;

(b) the immigration and sanitation; and

(c) customs and other fiscal matters.

Economic zone

5. (1) The Government may, by notification in the official Gazette, declare any zone of the high seas adjacent to the territorial waters to be the economic zone of Bangladesh specifying therein the limits of such zone.

(2) All natural resources within the economic zone, both living and non-living, on or under the seabed and sub-soil or on the water surface or within the water column shall vest exclusively in the Republic.

(3) Nothing in sub-section (2) shall be deemed to affect fishing within the economic zone by a citizen of
Bangladesh who uses for the purpose vessels which are not mechanically propelled.

**Conservation zone**

6. The Government may, with a view to the maintenance of the productivity of the living resources of the sea, by notification in the official Gazette, establish conservation zones in such areas of the sea adjacent to the territorial waters as may be specified in the notification and may take such conservation measures in any zone so established as it may deem appropriate for the purpose including measures to protect the living resources of the sea from indiscriminate exploitation, depletion or destruction.

**Continental shelf**

7. (1) The continental shelf of Bangladesh comprises:

(a) the seabed and subsoil of the submarine areas adjacent to the coast of Bangladesh but beyond the limits of the territorial waters up to the outer limits of the continental margin bordering on the ocean basin or abyssal floor; and

(b) the seabed and subsoil of the analogous submarine areas adjacent to the coasts of any island, rock or any composite group thereof constituting part of the territory of Bangladesh.

(2) Subject to sub-section (1), the Government may, by notification in the official Gazette, specify the limits thereof.

(3) No person shall, except under and in accordance with the terms of, a licence or permission granted by Government explore or exploit any resources of the continental shelf or carry out any search or excavation or conduct any research within the limits of the continental shelf.

Provided that no such licence or permission shall be necessary for fishing by a citizen of Bangladesh who uses for the purpose vessels which are not mechanically propelled.

*Explanation:* Resources of the continental shelf include mineral and other non-living resources together with living organisms belonging to sedentary species, that is to say, organisms which at the harvestable stage, either are immobile on or under the seabed or are unable to move except in constant physical contact with the seabed or the subsoil.

(4) The Government may construct, maintain or operate within the continental shelf installations and other devices necessary for the exploration and exploitation of its resources.

**Control of pollution**

8. The Government may, with a view to preventing and controlling marine pollution and preserving the quality and ecological balance in the marine environment in the high seas adjacent to the territorial waters, take such measures as it may deem appropriate for the purpose.

**Power to make rules**

9. (1) The Government may make rules for carrying out the purposes of this Act.

(2) In particular and without prejudice to the generality of the foregoing power, such rules may provide -

(a) for the regulation of the conduct of any person in or upon the territorial waters, contiguous zone, economic zone, conservation zone and continental shelf;
(b) for measures to protect, use and exploit the resources of the economic zone;

(c) for conservation measures to protect the living resources of the sea;

(d) for measures regulating the exploration and exploitation of resources within the continental shelf;

(e) for measures designed to prevent and control of marine pollution of the high seas.

(3) In making any rule under this section the Government may provide that a contravention of the rule shall be punishable with imprisonment which may extend to one year or with fine which may extend to five thousand takas.
ANNEX II
(Source: National Legislation - DOALOS/OLA - United Nations)

Notification No. LT - I/3/74 of the
Ministry of Foreign Affairs, Dacca, of 13 April 1974

No. LT-I/3/74 - In exercise of the powers conferred by sub-section (1) of section 3 of the Territorial Waters and Maritime Zones Act, 1974 (Act No. XXVI of 1974), and in supersession of any previous declaration on the subject, the Government is pleased to declare that the limits of the sea specified in paragraph 2 beyond the land territory and internal waters of Bangladesh shall be the territorial waters of Bangladesh.

2. The limits of the sea referred to in paragraph 1 shall be twelve nautical miles measured seaward and the baselines set out in paragraph 3 so that each point of the outer limit of the sea to the nearest point inward on the baselines is twelve nautical miles.

3. The baselines from which territorial waters shall be measured seaward are the straight lines linking successively the baseline points set out below:

<table>
<thead>
<tr>
<th>Baseline Point</th>
<th>Geographical Co-ordinates Baseline</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 1</td>
<td>21° 12'00&quot; N. 89° 06'45&quot; E.</td>
</tr>
<tr>
<td>No. 2</td>
<td>21° 15'00&quot; N. 89° 16'00&quot; E.</td>
</tr>
<tr>
<td>No. 3</td>
<td>21° 29'00&quot; N. 89° 36'00&quot; E.</td>
</tr>
<tr>
<td>No. 4</td>
<td>21° 21'00&quot; N. 89° 55'00&quot; E.</td>
</tr>
<tr>
<td>No. 5</td>
<td>21° 11'00&quot; N. 90° 33'00&quot; E.</td>
</tr>
<tr>
<td>No. 6</td>
<td>21° 07'30&quot; N. 91° 06'00&quot; E.</td>
</tr>
<tr>
<td>No. 7</td>
<td>21° 10'00&quot; N. 91° 56'00&quot; E.</td>
</tr>
<tr>
<td>No. 8</td>
<td>20° 21'45&quot; N. 92° 17'30&quot; E.</td>
</tr>
</tbody>
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