Lecture 1
Bangladesh – Geography

Introduction

1. Bangladesh is our motherland and we had to pay a very high price to earn her independence. Three million sons and daughters of this soil had to make supreme sacrifice to present us an independent motherland.

2. On the call of Bangabandhu, the Bengali nation rose against the occupation forces of Pakistan in 1971 and through a bloody struggle of nine months drew the outline of independent Bangladesh on the world map. We are the proud sons and daughters of this soil. We were born and brought-up in this country. But the question remains how much do we know about our motherland. In this course we shall try to put our steps outside our house and would try to explore our motherland from different angles. In today's class we shall mainly talk about the location, boundary, maritime zones, physiography, river system, forest and climate and demography of Bangladesh.

Location

3. Bangladesh officially known as the People's Republic of Bangladesh makes up the eastern and largest portion of the ethno-linguistic region of Bengal. It is situated at the zenith of the Bay of Bengal and is bordered by India, Myanmar and the Bay of Bengal. Bangladesh is separated from Bhutan and Nepal by the thin Siliguri Corridor.

4. Bangladesh extends between 20°34' to 26°38' north latitude and 88°01' to 92°41' east longitude. The tropic of cancer passes almost through the centre of the country.

Area and Boundary

5. **Area**. 147,570 sq km.

6. **Boundaries**. The borders of modern Bangladesh were formed following the Radcliff Line after the partition of India and Pakistan in August 1947. Bangladesh is surrounded by India almost from three sides. She has a small border with Myanmar and Bay of Bengal lies on her south. West Bengal of India on the west; West Bengal, Assam and Meghalaya of India on the north; Indian states of Assam, Tripura and Mizoram on the east, Myanmar on the southeast and Bay of Bengal on the south. The total length of the land border is about 4,413 km, of which

4,142 kilometre (93.9%) is shared with India and the rest 271 kilometre (6%) with Myanmar (Indexmundi.com). The coastline with the Bay of Bengal is 580 km. Limit of territorial water is 12 nautical miles (22.22 km) and the area of the high seas extending to 200 nautical miles (370.40 km) measured from the baselines constitutes the Exclusive Economic Zone (EEZ) (Banglapedia).



Physiography

7. The physiography of Bangladesh is characterized by two distinctive features: a broad deltaic plain and a small hilly region criss-crossed by swiftly flowing rivers. The 580 kilometer deltaic coastline, on the south, is highly irregular and is fissured by many rivers and streams flowing into the Bay of Bengal.

8. Roughly 80 % of the landmass is made up of fertile alluvial lowland. The plain is part of the larger Plain of Bengal, which is sometimes called the Lower Gangetic Plain. Although altitudes up to 105 meters above sea level occur in the northern part of the plain, most elevations are less than 10 meters above sea level; elevations decrease in the coastal south, where the terrain is generally at sea level. With such low elevations and numerous rivers, flooding is a predominant physical feature.

9. The only exceptions to Bangladesh's low elevations are the Chittagong Hill Tracts in the southeast, the Low Hills of Sylhet in the northeast, and highlands in the north and northwest. The Chittagong Hill Tracts constitute the only significant hill system in the country and, in effect, are the western fringe of the north-south mountain ranges of Myanmar and eastern India. At 1,046 meters altitude, the highest elevation in Bangladesh is found at Keokradong, in the southeastern part of the hills.

10. About 67% of Bangladesh's nonurban land is arable. Permanent crops cover only 2%, meadows and pastures cover 4 %, and forests and woodland cover about 16%.

River System

11. The rivers of Bangladesh mark both the physiography of the nation and the life of the people. About 700 in number, these rivers generally flow south.

12. The profusion of rivers can be divided into four major networks.

a. The Jamuna-Brahmaputra Network
b. The second system is the Padma-Ganges Network
c. The third network is the Surma-Meghna system.
d. The Padma-Meghna Network
e. The Karnaphuli.

13. The Jamuna-Brahmaputra is 292 kilometers long and extends from northern Bangladesh to its confluence with the Padma. It originates as the Yarlung Zangbo Jiang in China's Xizang Autonomous Region (Tibet) and flows through India's state of Arunachal Pradesh, where it becomes known as the Brahmaputra ("Son of Brahma"). At the point where the Brahmaputra meets the Tista River in Bangladesh, it becomes known as the Jamuna.



14. The second system is the Padma-Ganges. The 384 kilometer long river extends from the western border with India to its confluence with Meghna River at Chandpur.

15. The third network is the Surma-Meghna system. The Surma originates in the hills of Shillong and Meghalaya of India. The main source is Barak river. On reaching the border with Bangladesh, Barak bifurcates to form Surma and Kushiyara. Surma meets again with Kushiyara and this stream is known as Meghna from Bhairab Bazar. Surma-Meghna, at 669 kilometers by itself the longest river in Bangladesh.

16. When the Padma and Meghna join together, they form the fourth river system--the Padma-Meghna which flows 145 kilometers to the Bay of Bengal.

18. A fifth river system, unconnected to the other four, is the Karnaphuli. Flowing through the region of Chittagong and the Chittagong Hill Tracts, it cuts across the hills and runs rapidly downhill to the west and southwest and then to the sea. The Feni, Karnaphuli, Sangu, and Matamuhari--an aggregate of some 420 kilometers--are the main rivers in the region. The Karnaphuli Reservoir and Karnaphuli Dam are located in this area.

Climate

20. Bangladesh has a tropical monsoon climate characterized by wide seasonal variations in rainfall, high temperatures, and high humidity. Traditionally, there are six seasons in Bangladesh (Banglapedia):

a. **Summer** (Grisma). Comprises Baishakh and Jyaistha (mid-April to mid-June)

b. **The rainy season** (Barsa). Traditionally spreads over Asar and Shraban (mid-June to mid-August).

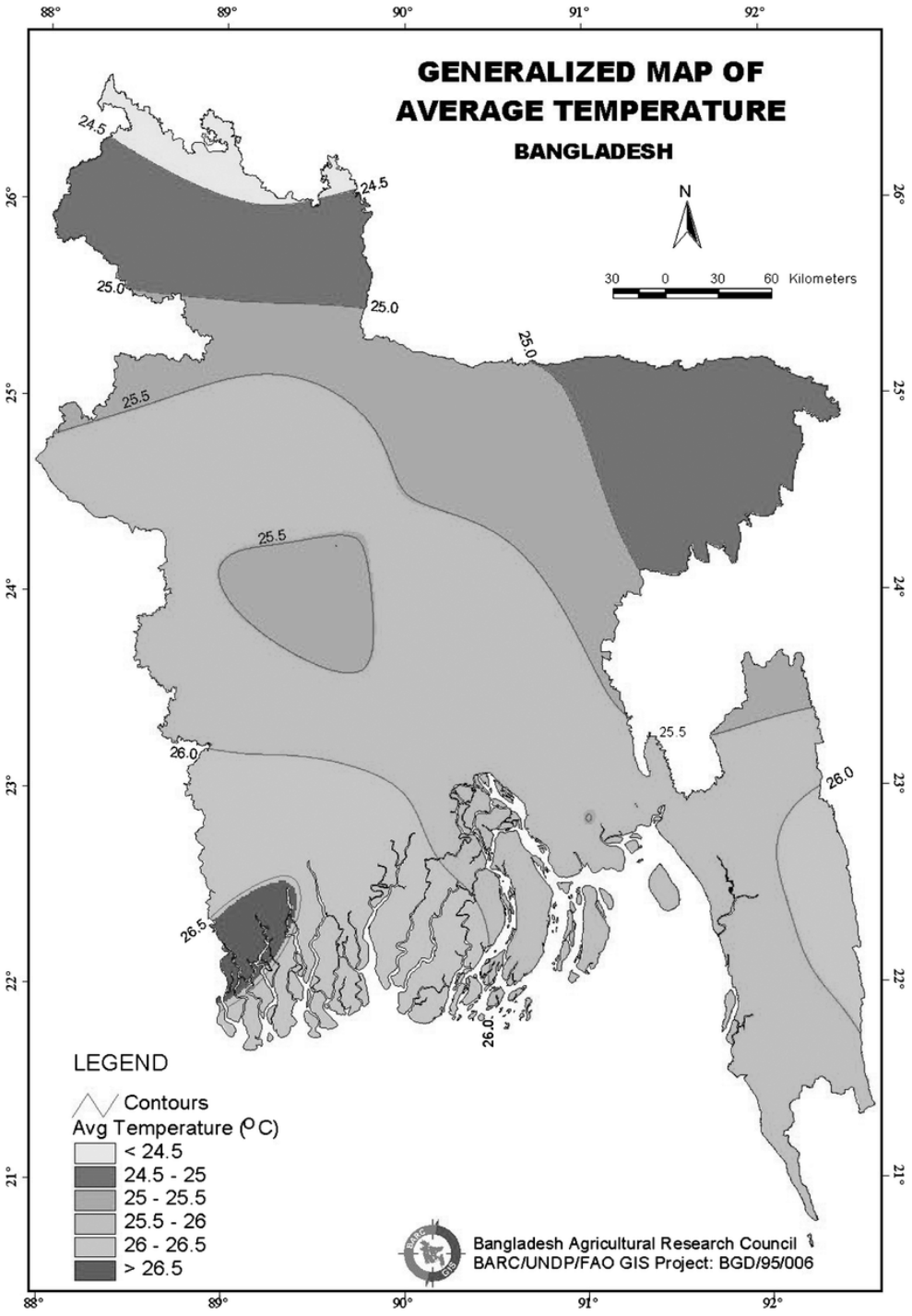
c. **Autumn** (Sharat). Lasts during Bhadra and Ashwin (mid-August to mid-October).

d. **Late autumn** (Hemanta). The fourth season, covers Kartik and Agrahayan (mid-October to mid-December).

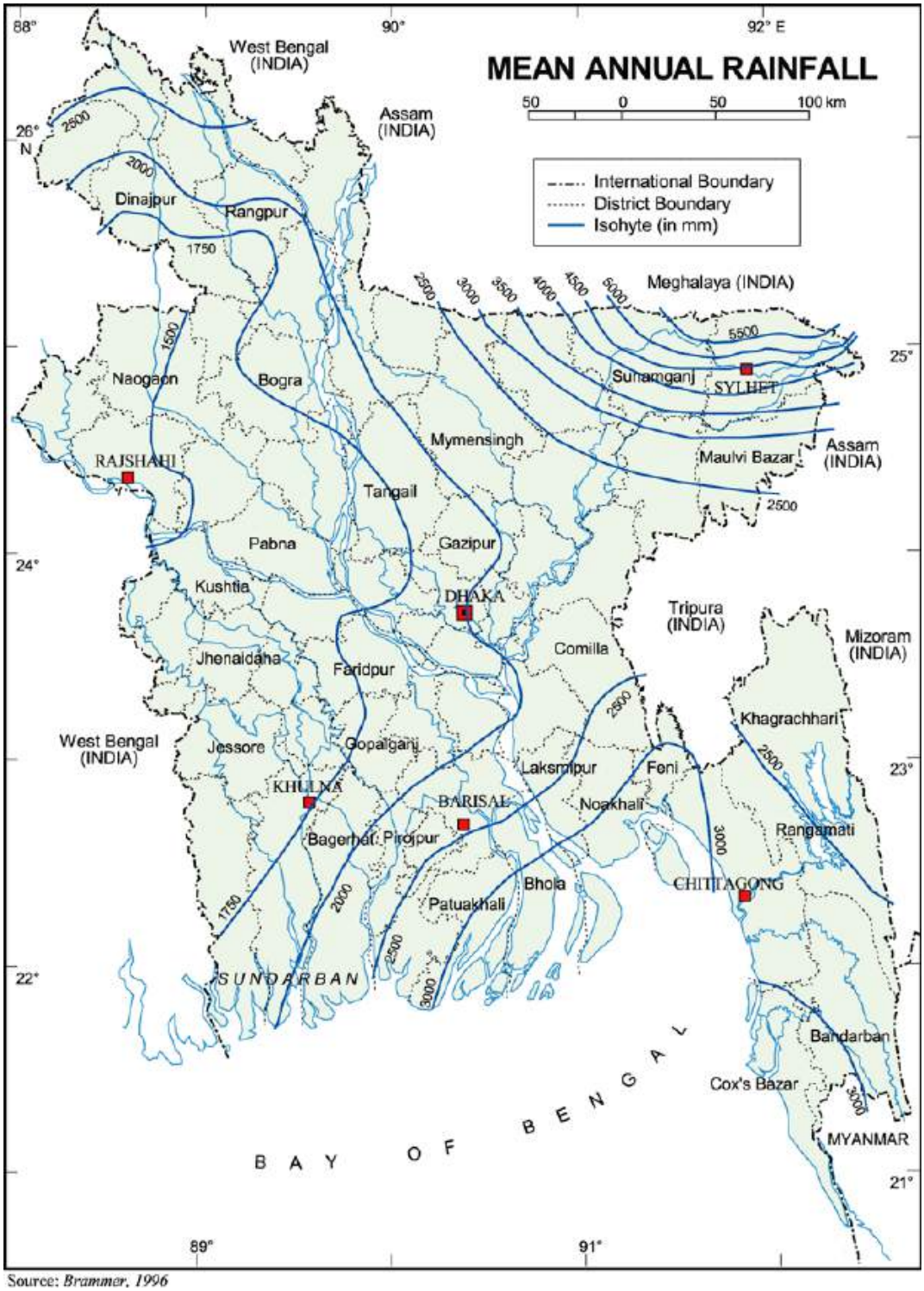
e. **Winter** (Shiit). The fifth season and the colder part of the year. According to the Bangla calendar it spreads over the months of Paus and Magh (mid-December to mid-February).

f. **The spring (**Basanta**)**. The last of the seasons occurs between winter and summer, spreads over the Bangla months Phalgun and Chaitra (mid-February to mid-April).

21. However, three seasons are generally recognized: a hot summer from March to June; a hot, humid and rainy monsoon season from June to November; and a warm-hot, dry winter from December to February. April is the hottest month in the country when the mean temperature ranges from 27°C to 31°C. Average temperature in January varies from 17°C to 21°C in the coastal areas. Temperature map of Bangladesh is given below:



22. Heavy rainfall is characteristic of Bangladesh. About 80 % of Bangladesh's rain falls during the monsoon season. North-eastern part gets the maximum rainfall which gradually decreases towards the west. Map showing average rainfall:



Source: *Brammer, 1996*

Forests

27. Bangladesh hosts four major types of forests:

    a. Hill forests (mixed-evergreen forest)

    b. Saal forest (deciduous forest)

c. Mangrove forest (natural mangrove)
d. Mangrove plantation

28. Two other types of forest also contain substantial biodiversity of the country:

a. Freshwater swamp forests
b. Homestead forest

Many of these forests are protected by laws in Bangladesh.

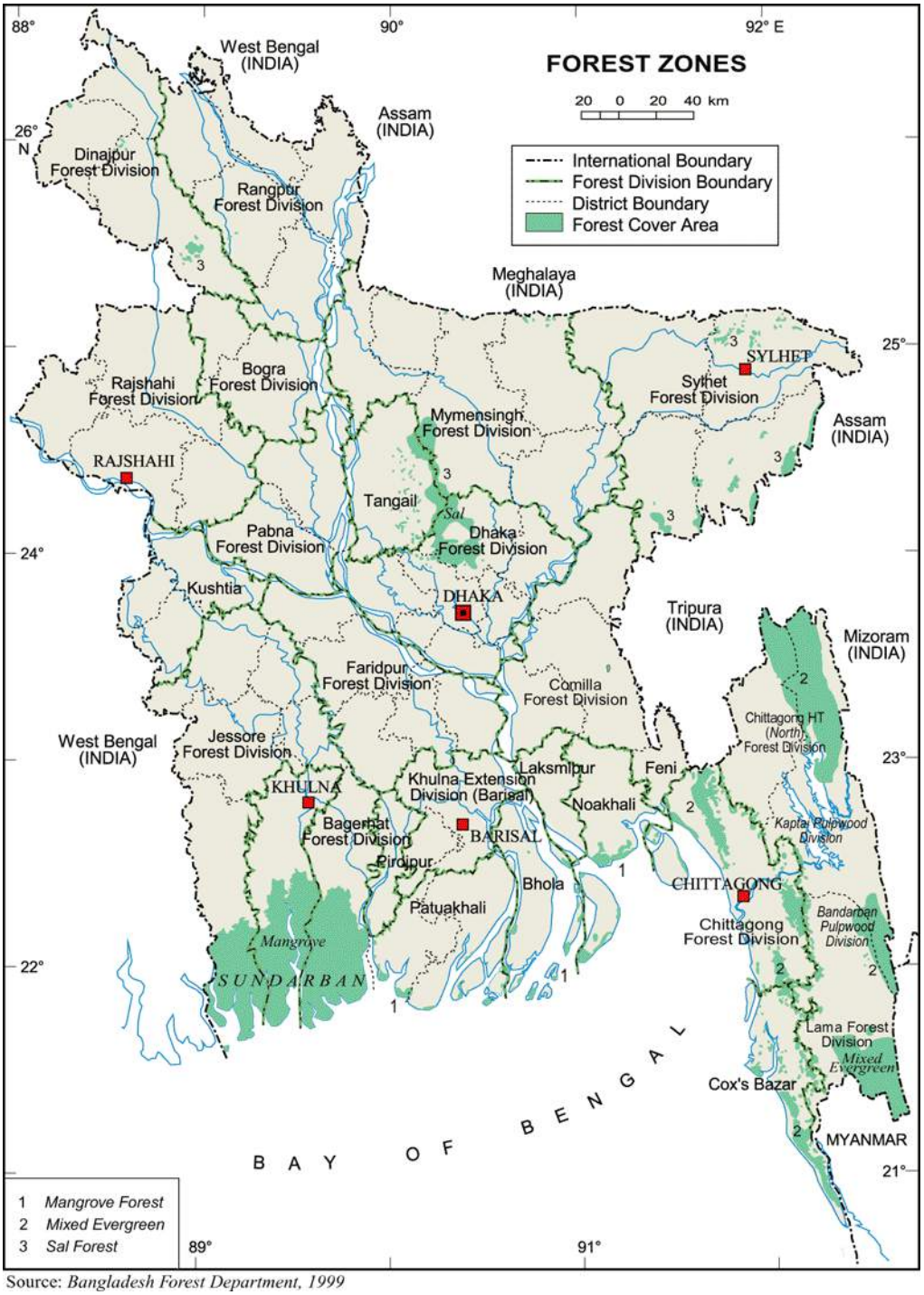
28. **Hill forests (mixed-evergreen forests)**. Hill forests are mostly mixed-evergreen forests which cover 680,000 hectares of land and mostly situated in the northeast and southeast parts of Bangladesh. Evergreen plants dominate the mixed-evergreen forests; however, deciduous plants are quite common and abundant.

23. **Saal Forests (deciduous forests)**. The Saal forest or moist deciduous forests of Bangladesh cover roughly about 120,000 hectares, which is about 0.81% land of the country. The central part of the country has the largest single mass of deciduous forest.

23. **Natural Mangrove Forests and Mangrove Plantation**. The mangrove forests cover an area of 801,700 hectares along the coast of the Bay of Bengal. Out of the total coastal forest, 601,700 hectares are natural mangroves, the Sundarbans—the single largest chunk of productive mangrove forest of the world—and 200,000 hectares are coastal plantations. The Sundarbans harbors 334 species of plants and 269 species of wild vertebrates.

24. **Freshwater Swamp Forests**. This type of forest is situated in the lowlands of the northeastern region of Bangladesh. Freshwater swamp forest consists of flood-tolerant evergreen trees of about 10–12 m in height.

25. **Homestead Forest**. There are approximately 25.53 million homestead forests in Bangladesh to fulfil the basic needs of the householders such as fruits, vegetables, other foods, and timbers. Planting native fruits and timber trees and bamboos near homesteads is a traditional land use practice in Bangladesh; however, amount of this forest is declining at an alarming rate due to various reasons.



Source: *Bangladesh Forest Department, 1999*

Demography

28. **Ethnic Identities**. 98% of the Bangladesh population are ethnic Bengalis with the remaining 2% made up from small ethnic groups and Biharis. People of small ethnic groups reside in Chattogram Hill Tracts and in northern and north-eastern part of Bangladesh. There are 11 Small Ethnic Tribe in Chattogram Hill Tracts: Chakma, Marma, Tripura, Tanchangya, Kuki, Bawm, Khumi, Mro, Lushai, Khiang, and Pankhu.

The Mymensingh region is home to a large Garo population, while North Bengal has a large population of Santals.

29. **Religion**. Bangladesh although a secular country, Muslims cover 89.1% of the population. Hindu with 10%, and other religions make up the remaining 0.9% of the population that primarily includes Buddhist and Christian.

Geo-Strategic Implications

30. Following are the geo-strategic implications for Bangladesh:

a. Proximity to Himalayas facilitates maintaining favourable condition to support enough rainfall and also supplies huge amount of sediments through the GBM river system.

b. The tropic of cancer passes through Bangladesh. The country being located on the sub-tropical region receives enough sunshine throughout the year (2800 hrs).

c. Easy maritime connections provide her extra importance in world affairs and she gets additional advantage in export and import.

d. The country is located in the Indo-gangetic plain. It offers her high level of land fertility and high productivity in agriculture.

e. However, the geo-strategic location also makes her prone to cyclone, flood, river bank erosion and salinity.