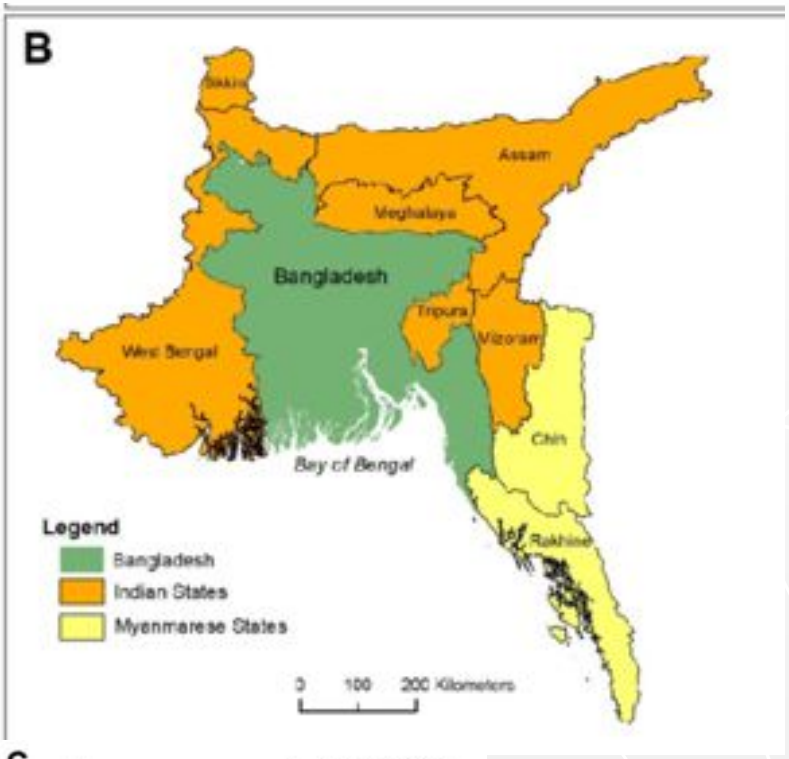
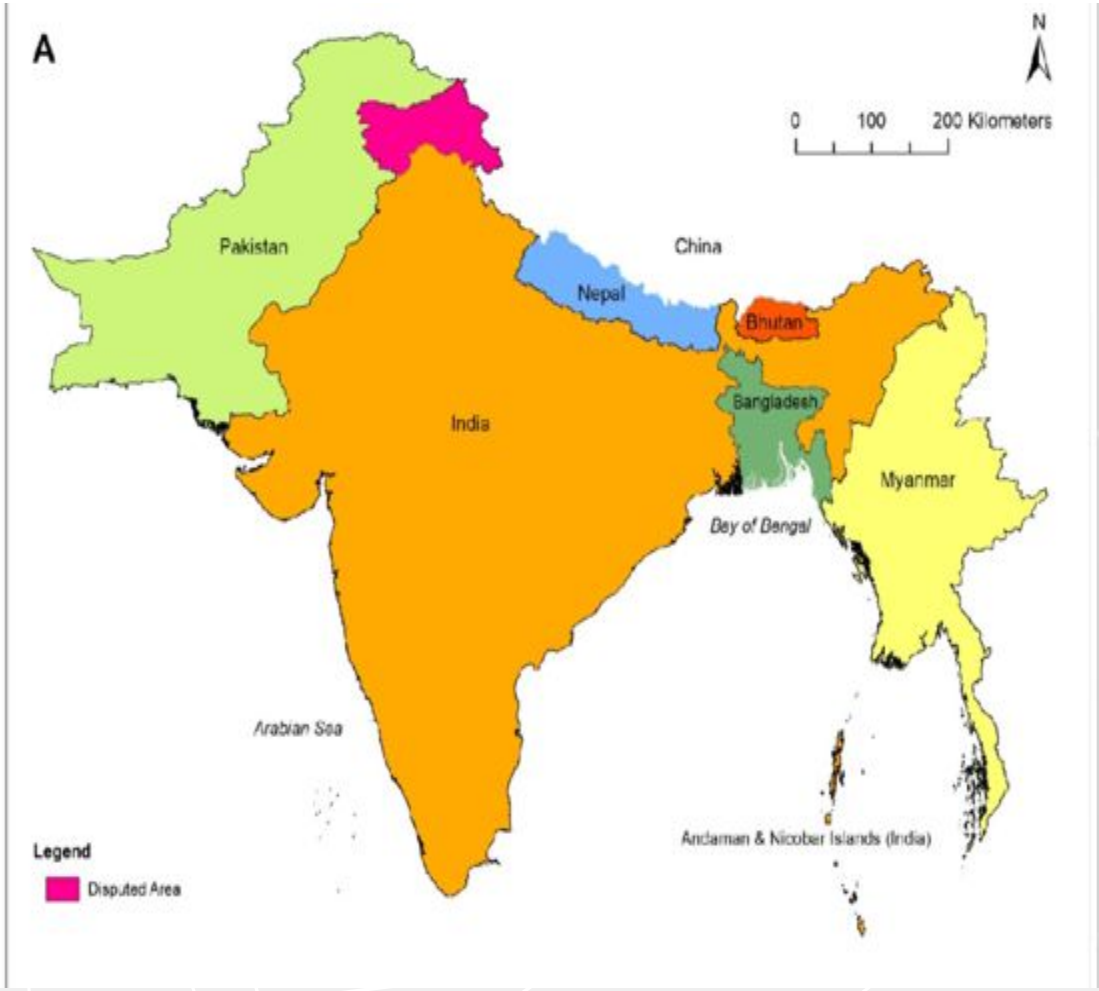
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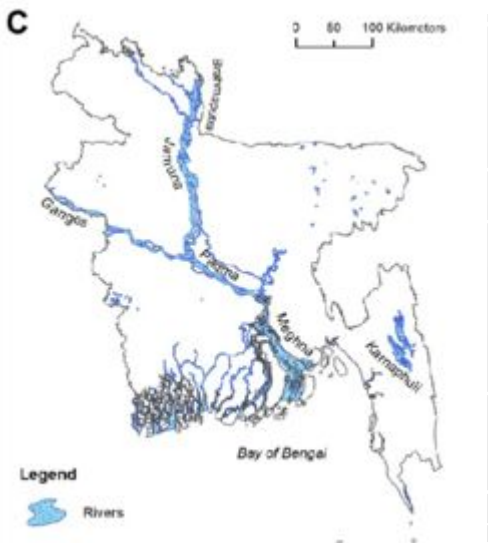
Geology and Geomorphology

Geology of Bangladesh

Bangladesh in Subcontinents:







Administrative Division of Bangladesh:



Geology of Bangladesh:

Relief:

Physically Bangladesh may be classified into **four distinct regions** each having distinguishing characteristics of its own:

1. **Eastern and northern Hilly regions**
2. The **Great table land**
3. **Flood plains** of the Ganges, the Brahmaputra and the Magna River System
4. The **Delta**

Eastern and northern Hilly regions

a. Chottagram and Hill Districts:

- High north-south striking hill ranges occupy **wholly the districts.**
- **Anticlines form** the hills and the **synclines form** the valley.
- **Lowest ranges** generally follow the eastern coast of the Bay of Bengal from Feni River to Naf River, continue southward across the Myanmar Border.
- A **narrow stretch of coastal plain** about **100 km long** and averaging 10km wide, develop due to thrust fault along the western flank of the Sitakund anticline.

- The **highest peak of the westernmost range** reaches an elevation of about **305m** from the sea level at Sitakund.
- **Towards the East**, ranges get higher and slopes steeper until the reach the highest hill range in the east that marks the boundary between Bangladesh and Mayanmar and India.

- All the hill ranges including peaks of Tidu (432m), Keokradung (884m) etc represent the eastern part of great **Basin uplifted during Miocene and Pliocene orogenies.**



b. Lalmai range

- About two miles west of **Cumilla town** is a **Horst uplifted** during **Pleistocene**.
- Highest peak rises over **45m** above sea level.
- Lalmai range covers a very small area measuring **12km long and 2-3 km wide.**



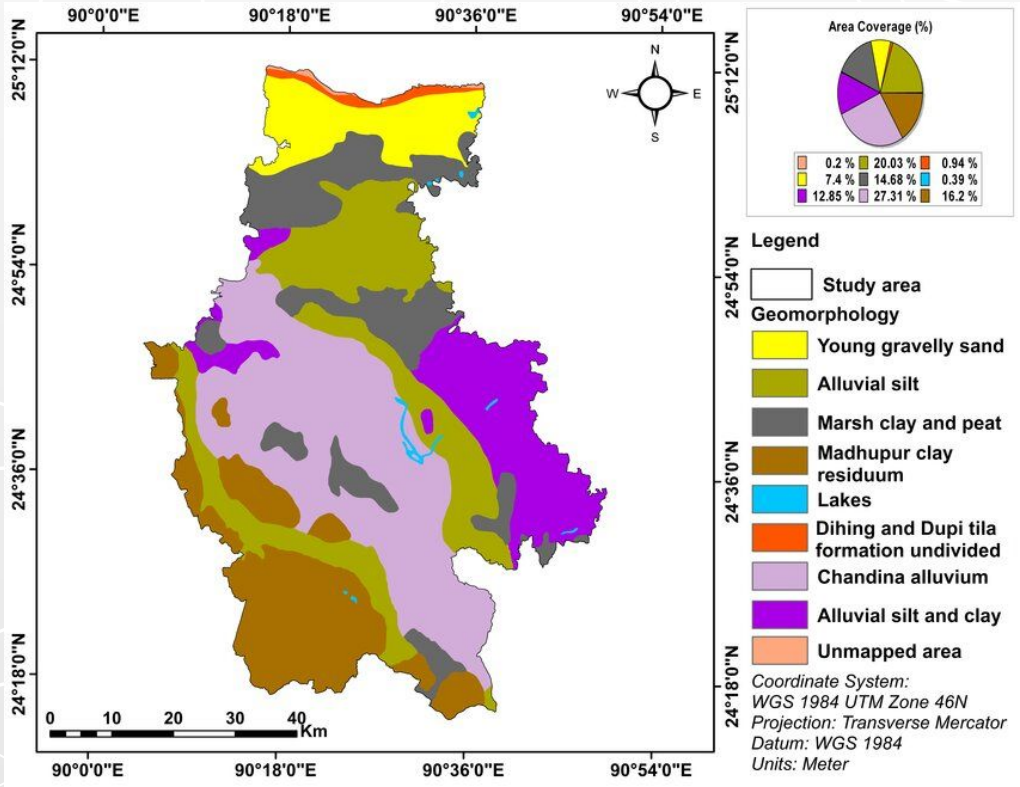
c. Hill Ranges of North-Eastern Sylhet District

- Some of hill ranges of the Chottogram and Hill tracts districts **continue northward across Indian state of Tripura** and form the hill ranges of north-eastern Sylhet region.
- These hill ranges attains a much lower elevation and slope more gently than their continuation in Chottagram and Hill Tracts districts.
- Most of these ranges have more or less the same geological history as that of the ranges of Chottagram and Hill tracts.



Hill along the narrow frontier strip of Mymensigh districts:

- Narrow strip of discontinuous low hill ranges extend from Jaflong to the Jumuna in the west.
- Jaflong hill attains a maximum height of 61m above sea level, with an elevation of hills decreasing westward.



The Table Land:

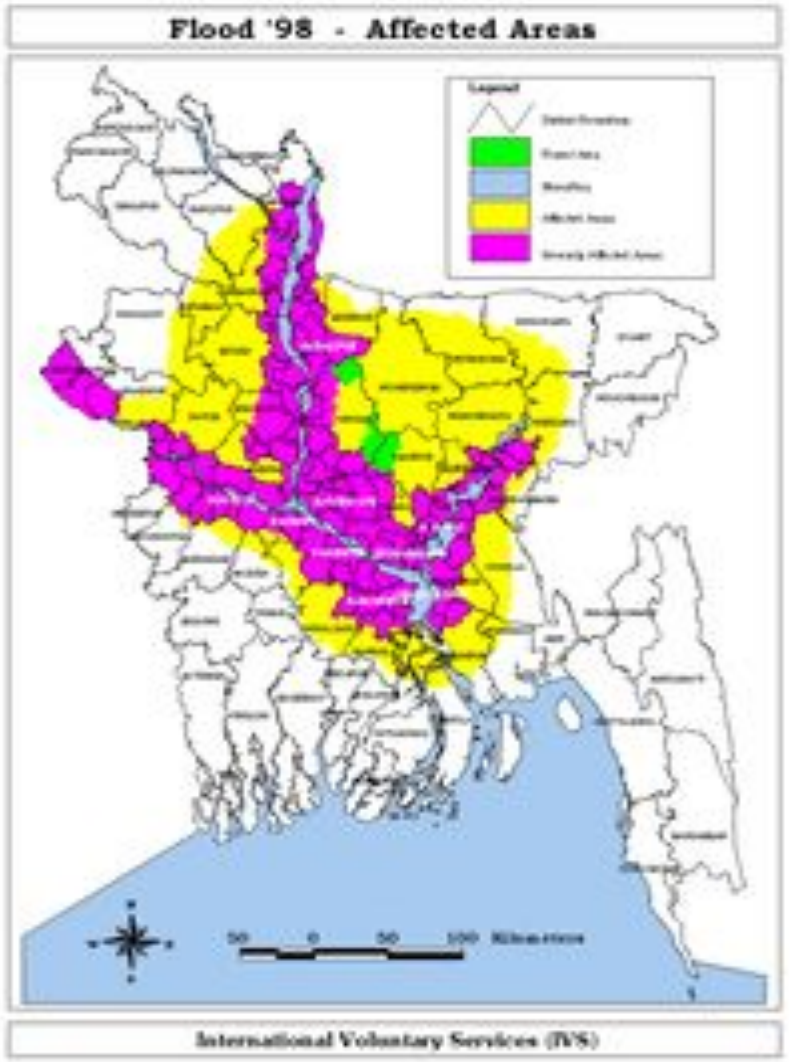
- Great Table Land **extends from the Lalmai Hills of Cumilla district and the marginal low hills of the districts of Chottogram and Sylhet** in the east through Dhaka and Rajshahi divisions to the west Bengal of India.

- **Barind Tract**, **Madhupur Garh**, and **Lalmai** and **marginal hills of Chottogram and Sylhet districts.**

- Table Land **covers an area of 10%** of Bangladesh.

- **Average elevation** of Table land is most likely to be more than **17m** above sea level.

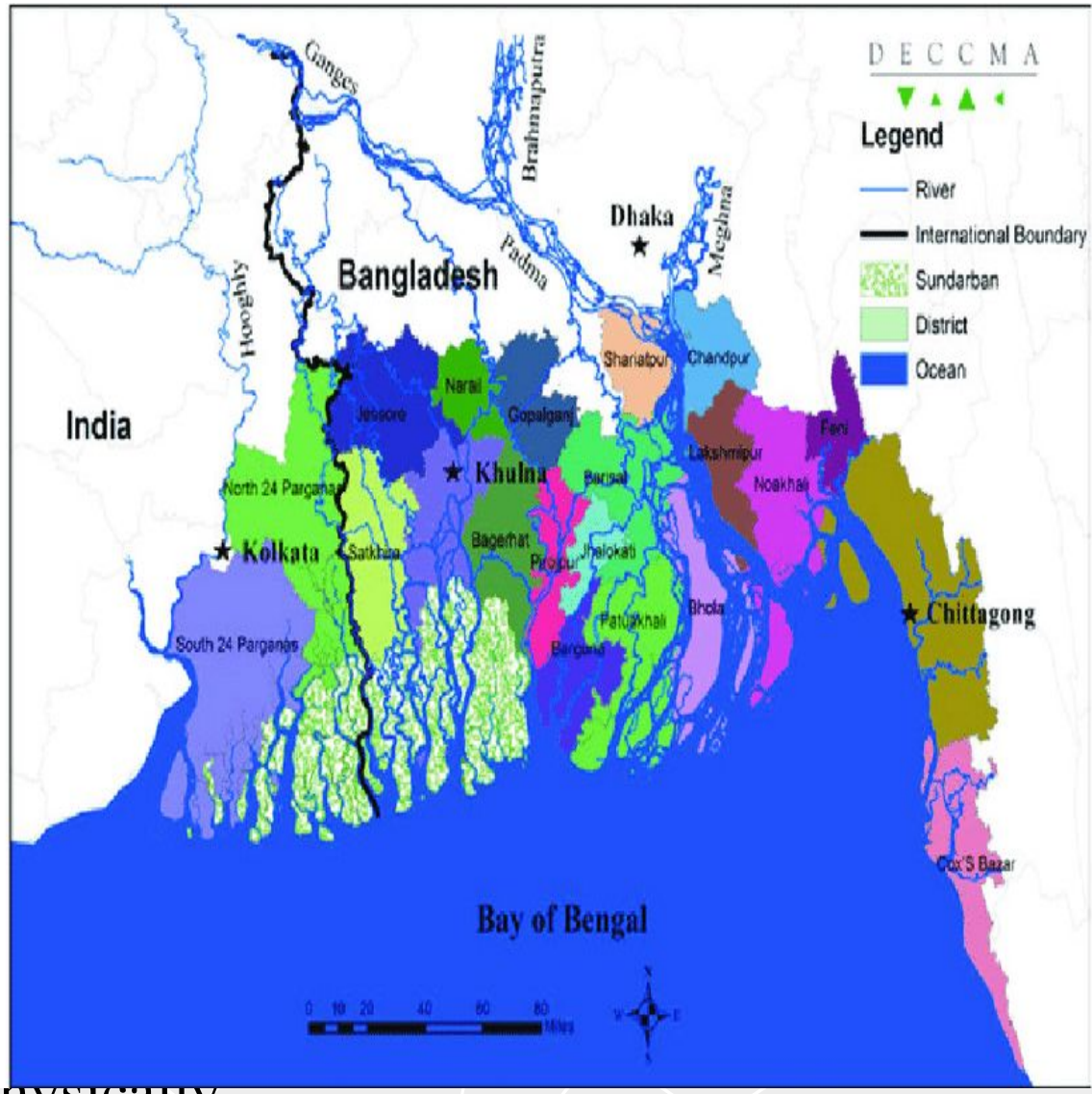
Flood Plains of the Ganges, the Brahmaputra and Meghna River system.



- Flood plain cove **approximately 40% of Bangladesh**.
- Ganges builds up, by far, the **largest area of delta**.
- Jumuna and Brahmaputra with their tributaries constitute the largest flood plains of Bangladesh.
- Meghna including its upper reaches, the Surma builds up flood plain covering Sylhet and part of Cumilla districts.
- **Elevation ranges from 4m to 15m**, rapidly increases at northern end of Dinajpur.

Delta:

- **Forms by combination** of Ganges Delta, Old-Brahmaputra-Meghna Delta, and Ganges-Jamuna – Megna Delta.
- Ganges-Jamuna-Megna Delta is the **largest in the world**, yet it remains practically unexplored geologically, geomorphologically and geophysically.



- In Bangladesh portion of Delta alone occupies about 18000 square miles, about **32% of land including rivers**.

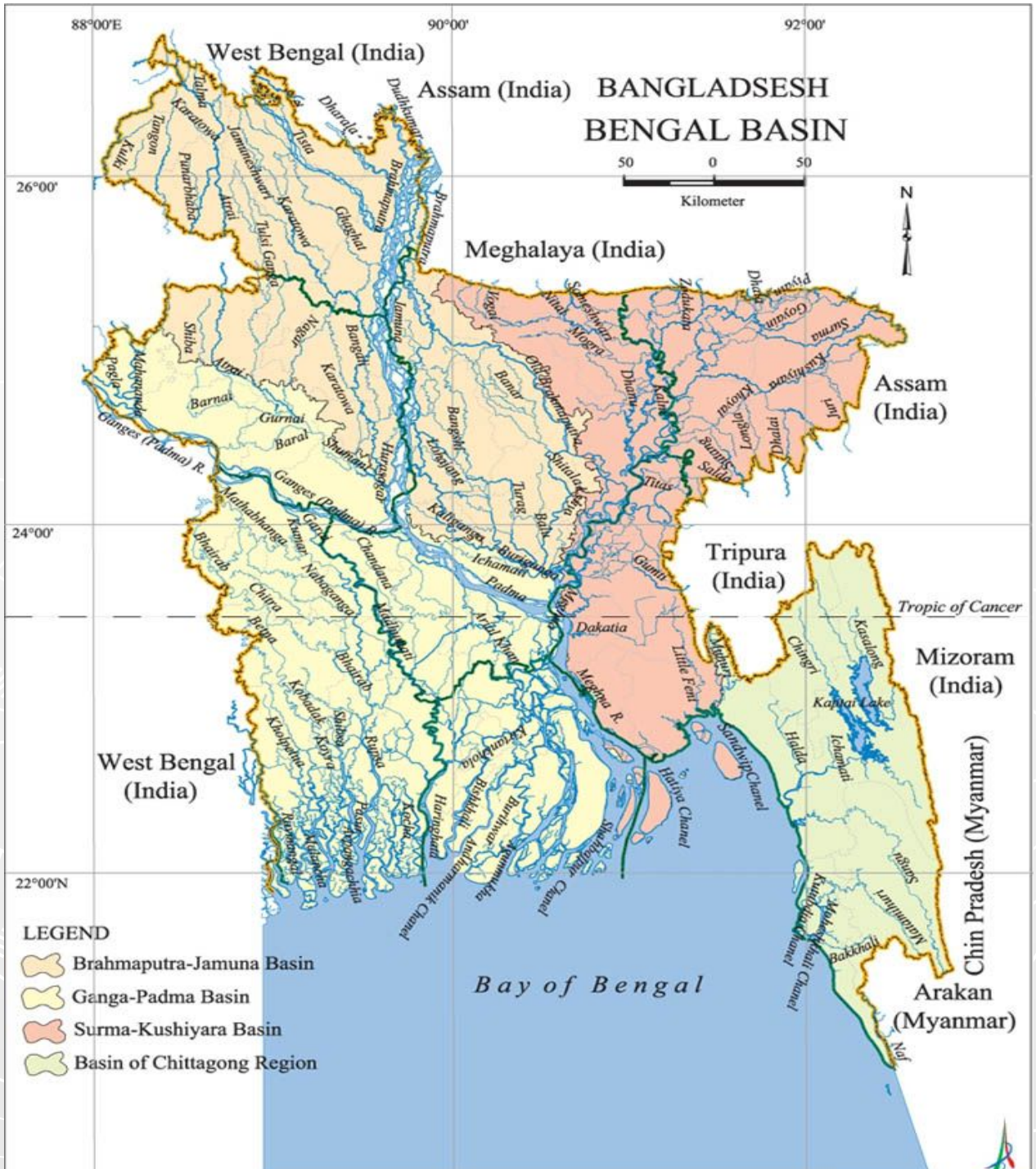
Drainage System:

- Ganges, Brahmaputra-Jumuna, Surma-Meghna and Padma and their tributaries are the arteries of drainage system.

- Karnaphuly, Sangu, Matamuhuri and Naf along with their feeding channels drain the water of the high hill ranges.

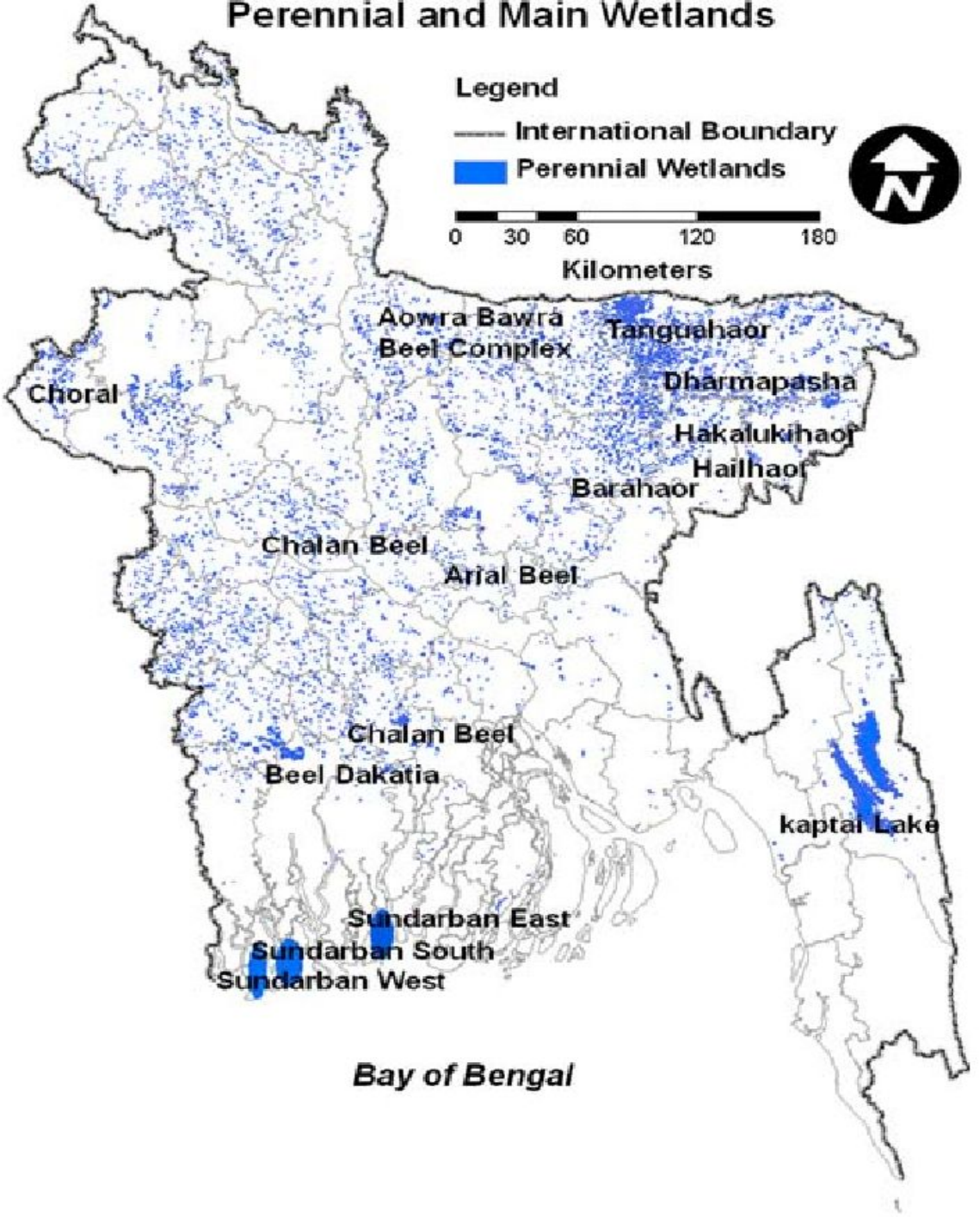
Drainages of the Ganges, the Brahmaputra and Meghna River system:

- **The Ganges**
- **The Brahmaputra-Jamuna**
- **The Surma-Meghna**
- **Drainages of the eastern most hill-range which parallel the eastern coast of the bay of Bengal.**


BANGLADSESH
BENGAL BASIN
88°00'E
90°00'
92°00'
26°00'
24°00'
22°00'N
50 0 50
Kilometer
N
West Bengal (India)
Assam (India)
Meghalaya (India)
Assam (India)
Tripura (India)
Mizoram (India)
West Bengal (India)
Chin Pradesh (Myanmar)
Arakan (Myanmar)
Tropic of Cancer
Bay of Bengal
Ganges (Padma) R.
Dakatia
Hatiya Chanel
Sandwip Chanel
Kaptai Lake
LEGEND
Brahmaputra-Jamuna Basin
Ganga-Padma Basin
Surma-Kushiyara Basin
Basin of Chittagong Region

The Swamps:

- Flood plains and Delta are studded with cluster of swamps both big and small known as Haor and Bill.
- In the central Sylhet lowland occur large swamps such as Hakaluki groups of Haors etc.
- Chalan Bill system constitute the largest swampy areas in Rajshahi division.
-


Perennial and Main Wetlands
Legend
International Boundary
Perennial Wetlands
0 30 60 120 180
Kilometers
N
Aowra Bawra
Beel Complex
Tanguahaor
Dharmapasha
Choral
Hakalukihaor
Hailhaor
Barahaor
Chalan Beel
Arial Beel
Chalan Beel
Beel Dakatia
kaptai Lake
Sundarban East
Sundarban South
Sundarban West
Bay of Bengal

Thanks