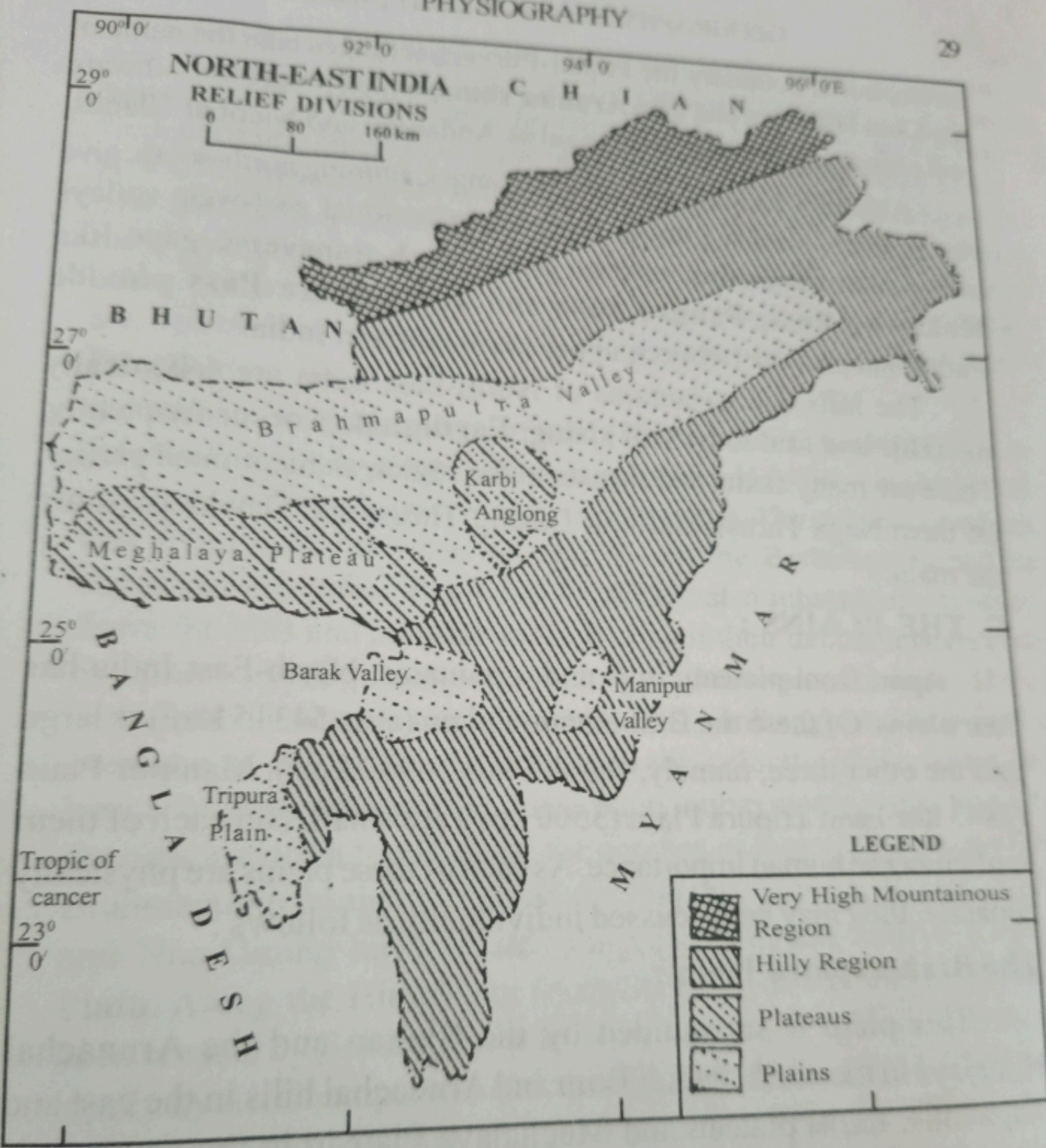
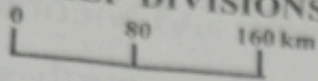


**NORTH-EAST INDIA  
RELIEF DIVISIONS**



**LEGEND**

- Very High Mountainous Region
- Hilly Region
- Plateaus
- Plains

Fig. 4

The ranges continue to occur retaining their north-south alignment in Tripura also. However, they are generally low and the intervening valleys are wide. In fact, there are seven parallel ranges like Jampai Range, Atharamura Range, etc. starting



## Physiographic Division - Arunachal Himalaya -

Extend from Eastern Border of Bhutan to the E. most part of Arunachal Pradesh. Brahmaputra River makes a hairpin bend here and cut across the mountain before flowing into the plains of Assam.

Highest Peak - Namcha Barwa ~~775m~~ 7756m  
of Mishimi Hills \*

Kangto 7590m, Kulkangri 7544m, Chomo Lhari 7344m.

The forested lesser Himalayas (1200m-3000m) are interrupted by deep and steep sided river valleys.

No. Siwalik ranges here perhaps eroded by the river. Extremely rugged, highly dissected with limited level space. Southern edge of the region rises from Brahmaputra plain with abrupt slope where as northern edge facing Tibet is comparatively gentle. The region had the great Himalayan region (Above 3000m) are rising above the snowline to about 6000m on the northern border of the region.

Rivers - Nyamjang and Tawang, Dikarog  
Ranganadi, Subansiri



③

Brahmaputra valley - Located between North eastern frontier Hills, Patkai and Naga Hills and the Karbi-Mizhalaya Plateau.

Alluvial plain formed by the deposition of sediments brought by the river Brahmaputra and its numerous tributaries.

Extend - Sadiya in the East, Dhubri in the west  
720 km Long and average 96 km width.

Alluvium of the valley 170.6 M thick

Valley altitudes - Tinsukia 135M, Dibrugarh 104M, Guwahati 51M and Dhubri 34M.

Valley is narrow near Guwahati and wider ~~near~~ at Lakhimpur Dhemaji.

Northern Margin of the valley has abrupt slope near Arunachal Himalaya.

Northern border of the valley has a narrow belt known as Bhabar (Sand Pebbles, Gravel)  
Streams Disappear here

Flood Plain on either side, support series of Swamps and bums, Also seen char

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...the sanctuaries. Beyond the flood plain in the south-bank, there is again a relatively high built up zone with dense settlement, roads, railways, towns and commercial centres as in the north-bank zone. In the eastern part and in Kalong-Kapili plain this zone is wide and extends upto the foothill zone. But in the western part in Kamrup, Goalpara and southern part of Dhubri districts, it is restricted in its spread. Unlike in the north-bank the southern foothill zone bordering the hills and plateaus do not have distinct Tarai and Bhabar strips. There are occasional swamps, marshes and low hillocks in the western part from Lumding region and high grounds supporting tea-gardens and low hillocks in the eastern part east of Dhansiri.

### The Barak Plain :

The Barak Plain is located in the southern part of Assam encircled on the north by the North Cachar hills, on the east by the Manipur hills and on the south by the Mizoram hills. To the west the plain merges with Sylhet Plains of Bangladesh. The plain is, in fact, the headward piedmont part of the Sylhet (Surma-Kushiyara) Plain. The plain is **horse-shoe shaped** with 85 km of east-west extension and 70 km north-south extension near Bangladesh border. The Plain also includes the Jiribam sub-division of Manipur which lies at its apex in the east. The total area of the Barak Plain is 6962 km<sup>2</sup>. The plain is lowlying, its height being 75 m. Near its apex near Jiribam which slopes down slowly to 73 m near Silchar and further to 51 m. near Karimganj.

The hill ranges of both North Cachar in the north and Mizoram in the south are aligned north-south. Hence some detached hillock in



the same alignment as the above can be seen lying scattered in the plain. These are locally known as 'tilas'. They are mostly made of rocks of the tipam (miocene) series. The middle part of the plain, along which the Barak finds its sluggish way westward, is so low lying that the plain assumes a **bowl shape**. A large number of tributaries from the North Cachar hills and Mizoram hills join it rendering the middle part susceptible to frequent floods. Of these rivers, Jiri, Labak, Madhura, Dalu, Jatinga and Larang in the north bank and Sonai, Katakhal, Dhaleswari, Singla and Langai in the south bank are the main. There are numerous **ox-bow lakes** and **swamps** on either side of the extremely meandering course of the Barak.

The three foothill margins of the plain have steep slopes and hillocks. These were earlier covered by thick forests like North Cachar Reserve Forest and Barail R.F. in the north and upper Jiri R.F. and Lower Jiri R.F. Katakhal R.F. Singla R.F. and Badshahtila R.F. in the south bordering Mizoram. A large number of tea gardens of Cachar is located on the higher grounds bordering the foothills.

#### **The Manipur Plain :**

Amidst the extensive hills and ranges of Manipur, there lies a **wheat shaped** plain of immense human importance. This intermontane plain is about 70 km long from Kanglatongbi in the north to Sugnu in the south. Its maximum width at the middle is about 40 km, but as it narrows down to the north and south, the average width works out to be 30 km. The plain has an area of about 1843 km<sup>2</sup>. It is said to be of **lacustrine origin**. The geologists believe that there was an intermontane depression filled by water at what is today the Manipur plain. A headstream of Myittha (a tributary of the Chindwin) through its headward erosion evacuated the water near Sugnu, leaving the deeper parts of the lake floor as smaller lakes and exposing the higher parts bare. The rivers like Nambul, Thoubal, Iril, Imphal, etc. that subsequently flowed over the floor started spreading alluvium, giving rise to the present plain. The plain slopes gradually down from 838 m in the north to 793.5 m in the south at a gradient of 75 cm/km. The **Loktak** and others smaller lakes lying in the southern half of the plain are the remaining vestiges of the original lake.

The Khuga, Imphal, Nambul, Iril, Thoubal, etc. rivers meet one



another south of Imphal city in the lowlying zone near Loktak and take the name of **Turel Achauba or Manipur river** and gets out of the plain southward at Sugnu Gap. The river is connected with the lake by a channel called Kordark. The channel discharges river water into the lake in winter and takes out lake water in summer.

Manipur plain has a large number of **isolated hillocks** scattered here and there. Of the hillocks Singmeirong, Langthaban, Waithau, Langathel, etc. are the main. Even within the Loktak Lake there is a hillock that stands out as an island, supporting a few fishing villages and attracting tourists for its scenic beauty. Besides, there are **river terraces** in the plain lying in the form of gravel patches besides the river bank, especially near the foothill margins. Such gravel patches can be seen near Sekmai, Kangla, Tongbi, Bisenpur, Thoubal, Sugnu and Chakpikarong. Their presence indicates minor upliftments of the plain in the recent geological period.

The average slope of the plain is not high (75 m/km); further, the southern part is very low and full of lakes and marshes. After heavy and continuous rainfall in the surrounding hills, the enormous quantity of water carried down by the otherwise shallow rivers, overflow the banks and cause flood, especially in the southern part of the plain.

#### **The Tripura Plain :**

The Tripura Plain is a **piedmont one**, lying at the foot of the north-south trending hill ranges extended from Mizoram. The plain has been built up in the western part of Tripura, over an area of about 3500 km<sup>2</sup> due to erosion caused by the headstreams of Manu and Khowai in the north, Titas and Gumti in the west and Muhari and Fenny in the south. This piedmont plains merges with the greater Bangladesh plain in the three sides mentioned; while the eastern part of the state is covered by seven parallel ranges with relatively narrow valley plains in between. The Tripura Plain covering West and South Tripura districts slopes down west and southward from Atharimura Range at a fairly high gradient providing little scope for flood to occur. As any other piedmont plain, it is the product of both degradational and aggradational activities. While the Tertiary hill ranges have been eroded by the hill streams, the sediments so collected have been spread over the surrounding lowlying areas. It is in this process that



the plain has been built up. Below the alluvial cover the plain contains Surma, Tipam and Dupi Tila deposits of sandstone and clay. The Tipam sandstones here bear rich reserves of natural gas and is said to be potentially rich in oil deposits also.

As in the Barak Plain, it has a large number of north-south trending isolated hillocks (tilas) standing amidst alluvial deposits. As the plain is an agglomeration of erosional flats, worn-down hillocks, piedmont terraces and depositional grounds over structural synclines, it is not dead flat.

### IMPORTANT RIVERS OF NE INDIA

- |                  |                     |
|------------------|---------------------|
| 1. Dihang        | 2. Dibang           |
| 3. Lohit         | 4. Na-Dihing        |
| 5. Dibru         | 6. Burhi Dihing     |
| 7. Disang        | 8. Dikhou           |
| 9. Janji         | 10. Teok            |
| 11. Kakadonga    | 12. Dhansiri        |
| 13. Daiyang (A)  | 14. Kolong          |
| 15. Jamuna       | 16. Kapili          |
| 17. Daiyang (B)  | 18. Barapani        |
| 19. Kiling       | 20. Digaru          |
| 21. Kulsi        | 22. Dudhnoi         |
| 23. Krishnai     | 24. Jinary          |
| 25. Jinjiram     | 26. Jiadhol         |
| 27. Subsansiri   | 28. Ranganadi       |
| 29. Dikrang      | 30. Buroi           |
| 31. Bargang      | 32. Jia Bharali     |
| 33. Gabharu      | 34. Panchnoi        |
| 35. Jia Dhansiri | 36. Barnadi         |
| 37. Puthimari    | 38. Baralia         |
| 39. Pagladia     | 40. Kaldia          |
| 41. Pahumara     | 42. Beki            |
| 43. Manas        | 44. Ai              |
| 45. Champamati   | 46. Saralbhanga     |
| 47. Sonkosh      | 48. Godadhar        |
| 49. Gangadhar    | 50. Kherkatia-Luhit |
| 51. Barak        | 52. Jiri            |
| 53. Jatinga      | 54. Sonai           |