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Introduction

Assam is the premier state of North East India. It possesses a very marked individuality and in the broad sense the state is transitional towards High Asia and Indo China. The state of Assam in situated in the northeast corner of India between 24° 3' N and 28° 51' E 89° 51' and 96° 1' meridians of longitude. The state covers an area of 78,438 square kilometres i.e. 2.39 per cent of the total area of India and supports a population of about 27 million accounting for 2.59 per cent of the total population of India. The state is surrounded by two foreign countries namely Bhutan and Bangladesh and seven Indian states like Arunachal Pradesh, Nagaland, Manipur, Mizoram, Tripura, Meghalaya and West Bengal.

The Brahmaputra valley is a well demarcated natural region of Assam in the north and the Barak plain is in the south. Between these two plains there lies a strip of highland formed by the Karbi Anglong Plateau and the North Cachar Hills. The two plains of Assam are the most populous areas of the state while the two hilly areas are thinly populated. Assam is the anglicized form of the name 'Assam' or Asom, which means peerless or unparalled. The term is also interpreted by a section scholars as a formation of the word 'Ahom' the people who migrated to this land in the early thirteenth century and ruled it till the annexation of Assam by the British.

Historical Outline : Assam has a long political history of its own

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Physical Features

Assam is diverse in physical features and the major physiographical components are the senile plateau of Karbi Anglong representing a part of Penninsular India, North Cachar Hills which display the most youthful and highly differentiated relief features and the Brahamaputra and Barak plains present aggradational surfaces. Landmasses from Archaean to Tertiary Origin bear the evidences of the evolutionary history of the earth in Assam and North East India. The Karbi Plateau is a part of Old Gondwanaland of more than 600 million years, the folded hills of North Cachar belongs to Tertiary period and the alluviums are of Quaternary period. The Northeastern region of India including Assam is situated in the merging zone of two tectonic plates, namely the Indo-Australian and Ero-Asian plates. So the entire region is seismically very active.

The present configuration of Assam is mainly the result of upliftment and subsidence of the Meghalaya plateau. The linear Brahamaputra valley is trapped between the Himalayan hills in the north and north-east, Patkai and Naga ranges on the south and southeast, while the plateau of Meghalaya stands on the south. Like the Brahmaputra plain, the Barak plain is also closed on three sides by the Meghalaya plateau, the Barail range, the hills of Manipur and Mizoram. The western side is open and joined with the Ganga plain. The geological formations and the forces of nature are mainly responsible for the formation of different relief features of Assam. On the basis of physical setup, Assam can be divided into four physiographic units :

(1) The Brahamaputra valley or Assam valley

(2) The Karbi Plateau

(3) The North Cachar hills and

(4) The Barak plain or Cachar Plain

1. **The Brahmaputra Valley :** The most prominent physical feature in Assam is the Brahmaputra Valley. This is a great ramp-valley from Dhubri to its blind end beyond Sadiya and extends over 720 km with average breadth of about 80 km.[1] According to geologists, this valley had been developed over the foredeep warped down between the Gondwana block and the advancing Himalayas. Thus the foredeep received deposits during the periods of Recent, Sub-Recent, Tertiary and Quaternary ages. The Brahamaputra valley is fairly wide in the upper part east of the Karbi Anglong district with on average width of 100 kilometres. In the middle part the width is only 55 kilometres where the Karbi plateau protrudes to the bank of the Brahamaputra river and west of it, the valley again widens and the average width becomes 85 kilometres in the western part of the Brahamaputra valley. The general slope of the valley is extremely gentle, falling at an average rate of 12 centimeter per kilometre. Sadiya, situated at the head of the valley has an altitude of 134 metres above sea level, the alltitude of Tezpur, situated in the central part is 78 metres and that of Dhubri located in the westernmost part of the valley in only 30 metres above mean sea level[2]. But the northern margin of the valley is very precipitous with the Himalayas falling abruptly from a height of 500 metes to a mere 150 and the boundary of the valley is rather gentle except in the eastern part bordering Tirap and Naga hills. From both the northern and southern margins the valley plain gradually drops down toward the river Brahmaputra. The Brahmaputra valley is also known as the Assam valley which covers an area of 56194 square kilometres, ie. 72 per cent of the total area of Assam.

The river Brahmaputra divides the valley into two parts: the north bank plain and the south bank plain. In the margins of the north bank plain all along the foothills of the Himalayas there is a narrow zone of coarse alluvial debris known as Bhabar Belt. This belt in boardered southward by a narrow flat plain of semi-tarai character that supports talk grasses. To the south of it and at about equal distances from the Brhamaputra river to the south and the fool hills of the Himalaya to the north lies the strip of alluvial plain from east to west which is not only the most densely populated plain but also supports the rice fields. South of the densely populated belt

1. Spack, OH. K. 1957, India and Pakistan, Methuen & Co. Ltd., London, P. 553
2. Administrative Report of Assam, 1911-12, Part II, P.5

with National Highways and railway lines there lies on active flood plain of the Brahmaputra with a series of swamps and beels.

The south bank plain of the valley is a bit different from that of the north bank plain. This plain is narrow and uneven in its outline. There is a series of terraces along the foothills of the Patkai and the Naga hills. These terraces are replaced by a series of swamps and beels in the foothills of the Meghalaya plateau. Such areas provide ideal sites for reserved forests including wildlife sanctuaries. The central plain of the south bank lies to the north of the foothill terraces and swamy belt. This built up plain is the most desely settled plain with rice fields, vegetables and tea gardens. The flood plain which lies south of the Brahmaputra river is highly irregular. The monotony of the flood plains of the valley is broken by occasional hillocks and river levees on both the banks of the Brahmaputra. The river Brahmaputra is highly braided due to its low gradient and as a result, there are a large number of Chars and riverain islands in the bed of the Brahmaputra Majuli, which is situated at the bed of the Brahmaputra river between 26° 45' and 27° 15' latitudes and 93°39' and 94° 35E' longitudes, is one of the largest river islands of the world. But it is not a Char island. The present Majuli island was an integral part of the then Sibsagar district in the 17th century. It was created as a river island only during the first half of the 18th century due to southward shifting of the Brahmaputra river by way of eroding the northern most curve of the Dhansiri river. Such erosion process is still going on in the area of the island of 645 square kilometres. This Majuli island is, at present, a civil administrative sub-division of Jorhat district. It may be noted that some important embayments are seen along the entire foothills of the south bank plain of the Brahmaputra valley. These embayments are created partly by the headward erosion and largely through subsequent deposition by the South Bank tributaries of the Brahmaputra river, Burhi Dihing, Disang, Dhickhow, Janji, Dhansiri, Kapili, Diguru, Kulsi, Dudhnai, Krishnai, Jinijiram etc. Such embayments are also found along the foothills of the north bank plain of the Brahmaputra valley.

2. The Karbi Plateau : The Karbi plateau is geologically the outlier of the Meghalaya plateau. It lies to the east of the Meghalaya plateau and structurally the whole area is a continuation of the plateau of Meghalaya. It is mentioned earlier that the Karbi plateau projects northward upto the bank of the Brahamaputra river making

constriction to the Brahamaputra valley. This plateau of Assam is almost separated from the Meghalaya by the erosional activities of the river Kopili and its tributaries. The Karbi plateau covers the whole Karbi Anglong district of Assam.

The topography of the plateau is senile and the height of the central part is about 1400 metres. This part is composed of metamorphosed crystalline rocks of pre-Cambrian origin. The eastern part is made up sedimentary rocks like limestone, sandstone, sale etc. of upper Mesozoic age. The hills mostly follow south-west to northeast trend and the ridges are not sharp. Generally the plateau area slopes towards the north the Kapili valley divides the Karbi plateau into two unequal parts. The eastern hilly part covers the entire Diphu and Bokajan administrative sub-division of the Karbi Anglong district. This part is dome shaped and the whole area is roughly double the size of the western counterpart. The other part (western part) of the Karbi plateau is continuous to the Meghalaya plateau and it covers the Hamren sub-division of the Karbi Anglong district. This part presents a rugged topography and is highly dissected by the Kapili and its tributaries. The total area of the Karbi Plateau is about 7000 square kilometres.

3. **North Cachar Hills :** To the south of the Karbi plateau lies the young folded ranges of North Cachar Hills representing the Himalayas in Assam. These Young Folded hills cover the whole North Cachar Hills district of Assam. The North Cachar Hills are the extension of the Barail ranges of Nagaland. These ranges terminate at the river Kapili, to the west of which lie the Precambrian ranges of the Meghalaya plateau. Infact, the Barail group of ranges act as a bridge between the Archaean group of Meghalaya Plateau with the Tertiary group of the hills of Nagaland. The average altitude of the region is about 1600 m and the Mahadeo peak (1953 m) is the highest point of the North Cachar Hills The North Cachar Hills have been dissected by the Kapili and Dhansiri river systems. The main source of the Dhansiri river lies in the Barail range which divides the district topographically into two parts, the northern part falls under the catchment area of the Brahamaputra basin and the southern part is under the Barak basin.

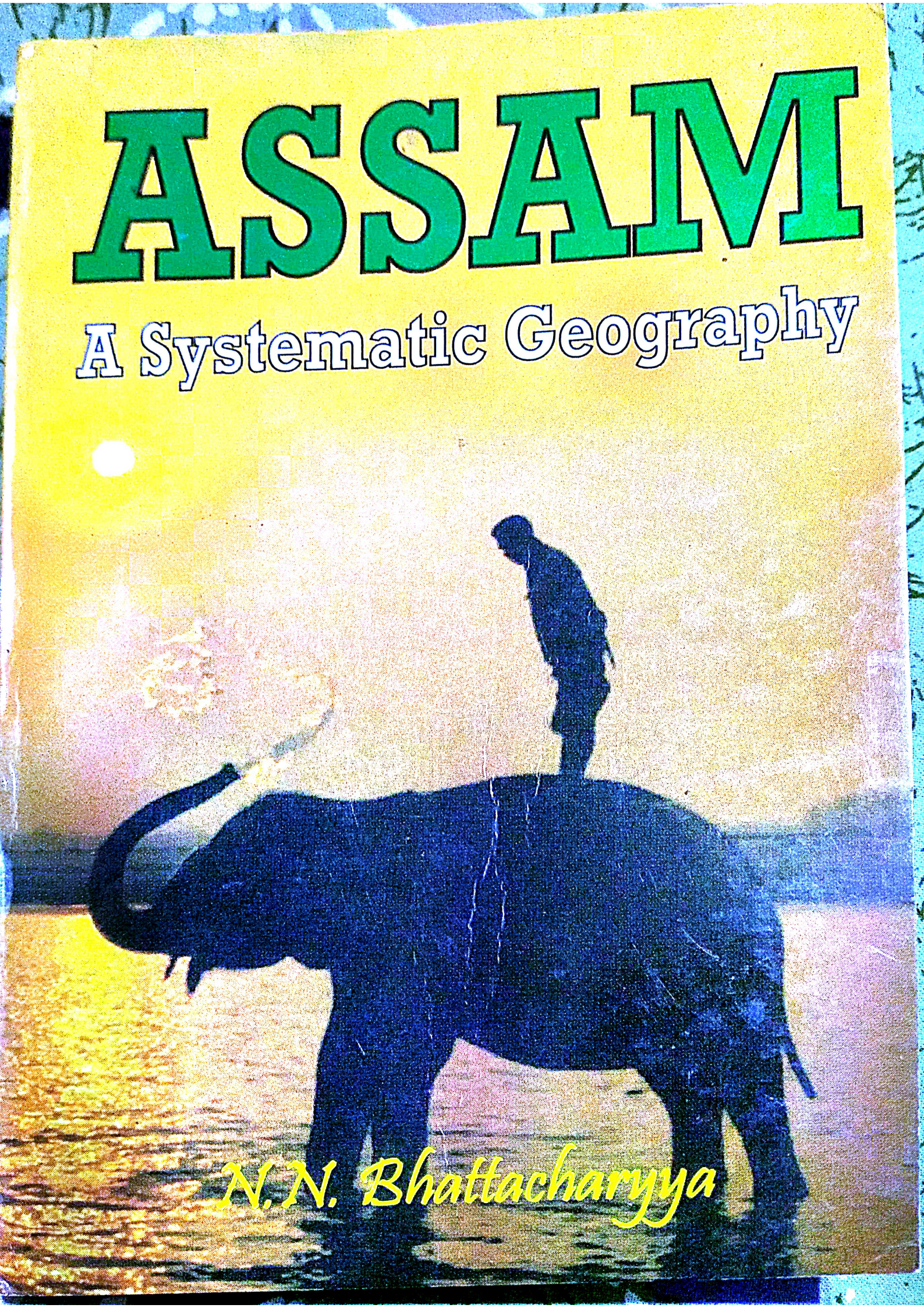
4. **The Barak Plain :** The Barak is the second largest river in Assam and North East India and the Barak plain is created by the aggradational and degradational activities of this river system. The

area of this plain is about 7000 Square kilometres. It is surrounded by the hills on three sides and the western side is open and joins with the plain of Bangladesh. The river Barak flows through the middle part of the plain sluggishly in meandering course forming series of swamps and ox-bow lakes. The flood waters accumulate in the depression giving rise to many marshes which dot the country side.

The northern part of the plain is bounded by the North Cachar and Jaintia hills. The average width of this part varies from 6 km to 11 km with hill peaks ranging between 900 m to 1200 m in height. The Bhuban Pahar lies on the southern side of the Barak river. This ranges is a continuation of the Mizo range which runs from south to north with varying height of 213 to 305 metres. The Rangti Pahar acts as the watershed between the rivers Dhaleswar and Sonai. The other important hill ranges of the southern part of Barak plain are the Tipam range with a height ranging from 30 to 150 metres, and the Sidheswar hills with a height of 183-610 metres, Thus the Barak plain is piedmont in nature and presents a mosaic of isolated low hillocks locally known as *tillas*, These *tillas* rise abruptly from the alluvial ground of the plain. The hills and *tillas* are coverd with forests or tea plantations.

ASSAM

A Systematic Geography



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