CHAPTER - II
THE LAND AND PEOPLE

THE LAND:

The Doiyang-Dhansiri Valley lies between 25-26.8 E. and 93-94.5 N. in the south-central region of the State of Assam. Geographically, it is an elongated alluvial plain of the shape of an arch, of which some areas, particularly those adjoining the hills in the south owe their origin to the erosion of the Dhansiri. The valley is flanked by the Naga Hills in the east, the Karbi Anglong hills in the west and the Barail Hills in southwest. It constitutes the present district of Golaghat, part of the district of Karbi Anglong, and the State of Nagaland. Physiographically, the Valley is a secluded territory being surrounded by hills in all directions except in the north where it merges in the Assam Valley (Fig. 1).

The Dhansiri, with its main tributary, the Doiyang forms the principal river system and controls the entire drainage in the region. Being a highly meandering river, it forms, in its lower middle course, a number of ox-bow lakes (beel) and large marshy tracts. It branches out in several waterstreams before it finally merges with the Brahmaputra near present Dhansirimukh. Consequent to this, the Valley develops semi-tarai conditions of wet soil and dense forests. Which however dwindled in recent years due to large scale deforestation.

PHYSIOGRAPHY:

Physiographically, the Doiyang-Dhansiri Valley presents a remarkable geomorphological feature of an undulated landscape. The profile generally consists of elevated land waxing slope, waning slope lowlying areas and terrace, bisected by depressions possibly caused by dead courses of old meanders, beel
MAP OF DOIYANG-DHANSIRI VALLEY
STUDY AREA

INDEX


FIG. 1.
and nalā. Quite often, the topography is found to be pierced by many hillocks in west, south and east. The easternmost extension of the Meghalaya Plateau merges in this Valley by undertaking a gradual northeasterly fall in a series of low irregular hills. In the east, the Meghalaya Plateau forms a part of the North Cachar Hills and then it joins the Naga Hills. The Doiyang-Dhansiri Valley is thus represented by a scattered mountainous physiography.

As the Brahmaputra is highly braided, it tends to form river islands owing to its low gradient. As a result, the Dhansiri which falls into, it develops conspicuous meanders and forms ox-bow lakes and huge marshy tracts. One of the most beautiful and interesting natural reserves of the region is the Kaziranga Wild Life Sanctuary. The foot hills and low fertile plain are heavily wooded with evergreen and semi-evergreen rain forests.

The general topography of the Valley is diversified by the higher level attained by the sub-soil. The subsoil is formed by stiff retentive clay, abounding in iron modules. The entire Valley is intersected by numerous ravines which flow from the hills of the Karbi Anglong and Naga Hills presenting a beautiful landscape. Here the rivers are fast, their beds are rocky and during rain even small streams turn turbulent. Water streams occasionally fall into gorges over deep precipice. One such is the Fatasil Fall found within Nambar Reserve Forest.

The soil is well-suited for cultivation of varieties of crops. Significantly, some parts of the cultivable land are found divided into fragments by multiple grooves known locally as holā and are most suitable for cultivation of wet-rice, and also large paddy fields such as Hamdoi. All these factors seem to have facilitated human settlement in the Valley since ancient period.
Geology:

Structurally, the Doiyang-Dhansiri Valley is mainly of depositional origin. As discussed, the southern part owes its origin to the headward erosion of the river in areas adjoining the hills. The hilly region of Karbi Anglong lying to the west of the Valley is the easternmost extension of the Meghalaya Pleauteau, which is primarily constituted by the rocks of the Pre-Cambrian age consisting of a group of hard crystalline granites, gneisses and Pre-Cambrian rocks, form the base of the Karbi Anglong Hills. Here, the rocks are represented by gneises, schists and granites, having a general northeast-southwest direction of strike foliation. These rocks are folded isoclinally and lineated with a plunge from moderate to steep. The plunge of lineation at places becomes vertical. Folds in the Shillong Series, comprising mostly quartzites with shale, slate and conglomerates, are not frequent. The pre-Tertiary and Tertiary rocks lie almost horizontally except in its southern part.

The Barail range that separates the Valley from the Barak Valley forms a part of North Cachar Hills, and they join Naga Hills. It projects at right angles from the Burmese system and lies almost due east and west. This plateau exhibits very intricate degree of squeezing, for which rocks are found to be faulted and folded. The plateau abounds with the mountain ranges of the Extra Peninsular. Along the Halflong-Disang fault the hills are of the relict type. The Archaean gneissic complex is also found in the north western fringe of North Cachar Hills. It is overlaid by the Shillong series which is younger and mainly of sedimentary origin.

The Barail Series overlies the Jaintea Series, and extends widely from the Barail foot hills upto the Dhansiri Reserved Forest and finally disappears in Dhansiri Basin. The Tipam series extends north-east along the Dhansiri Valley and corresponds to the four depositional surfaces of lithostratigraphic units designated as Bihora, Hatighuli, Kaziranga and Dhansiri Formations (fig. 2). The Bihora Formation is represented by the highest relict depositional alluvial plain/terrace having 5-12 m. high scarps, the oldest quaternary
formation, unconformably resting over the Pre-cambrian gneisses, schists and granitoids. It comprises highly oxidised and indurated, yellowish, medium to coarse sands overlain by 1-3m. thick reddish yellow silty clay. The Hatighuli Formation exposed in the form of a terrace having 2-4 m. high scarps, comprises moderately oxidised yellowish grey medium to coarse sands underlying a 0.5-2 m. thick pale yellow silty clay. This formation also unconformably overlies the Pre-cambrian gneisses and granitoids in the eastern and western parts of the area, while in the central part, it rests over the Bihora Formation. The Kaziranga and the Dhansiri Formations are exposed in the form of recent composite alluvial plains and present flood plains (and back swamps) respectively. Both the formations are represented by unconsolidated silty, fine to medium sands. The Kaziranga Formation shows signs of incipient oxidation.

The rejuvenation processes responsible for the deposition of Bihora, Hatighuli, Kaziranga and Dhansiri formations in the Valley appear to be both static and dynamic in nature. This resulted in the uplift of the Bihora Surface pari passu with the deposition of Hatighuli.

Similarly, the Kaziranga Formation should have got deposited after the uplift of Hatighuli Surface during Holocene time. The sediments of the Dhansiri Formation which are being brought by the Brahmaputra and its tributaries from late Holocene to present day are the youngest in the Valley. The channel migration patterns of the Brahmaputra and its tributary Dhansiri which have resulted due to climatic and neotectonic activities, are inundating as well as eroding vast stretches of the Valley plains.
## Table

Stratigraphy of Dhansiri Valley.

<table>
<thead>
<tr>
<th>Age</th>
<th>Geomorphic Landforms</th>
<th>Lithological Characters</th>
<th>Geological Formations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Holocene Dhansiri Unit</td>
<td>Active channel bars, point bars back swamps etc.</td>
<td>Channel bar, point bar, back swamp deposits</td>
<td>Dhansiri Formation</td>
</tr>
<tr>
<td>Holocene Kaziranga Unit</td>
<td>Recent composite flood plain with numerous meander scars and scrolls. Palaeochannels and abandoned channel</td>
<td>Grey silty fine-medium sands</td>
<td>Kaziranga Formation</td>
</tr>
<tr>
<td>Holocene Hatighuli to Pleistocene (?)</td>
<td>Raised terrace with 2-4m, high scarps. Highly dissected coarse sands</td>
<td>Moderately oxidised pale yellow medium sands</td>
<td>Hatighuli Formation</td>
</tr>
<tr>
<td>Pleistocene Bihora cane (?) Unit</td>
<td>Raised terrace with 5-12m high scarps</td>
<td>Highly oxidised and Indurated reddish yellow medium to coarse sands.</td>
<td></td>
</tr>
<tr>
<td>----------------------------------</td>
<td>---------------------------------------</td>
<td>---------------------------------------------------------------</td>
<td></td>
</tr>
</tbody>
</table>

**UNCONFORMITY**

| Precambrian Denudational ridges and hills | Gneisses and schists and granitoids | Precambrian Group |

Laterite and lateritic soil of recent age covers the earlier formation at the foot hills of Nagaland. Low grade iron ore and granite weathered clay is found in the entire foot hills of Nagaland. Rockshale of the Disang group slightly metamorphosed, is found in Nagaland. Mineral areas with deposits of limestone and lithomergic clay have been found in North Cachar Hills and Karbi Anglong, which easily yield both pottery clay and fire clay. Clay-mixed iron deposits are found at Dhekial, Betiyon, Kamarbondha, Bossa, Borpathrau and Kacharihat. Iron slags in large scale are found at Rahdhola pathar in Dhekial. The soil in Golaghat region consists of a whitish retentive loam well adapted for the growth of rice.

The Doiyang-Dhansiri Valley is also noted for hot water springs. Two of such hot-springs exist in Nambor Reserved Forest, one at Gelipung near Kachariholo about 15 Km.to the north of Borpathar and covers an area of about 1 acre, the other is at Garampani (29X22m) by the side of National Highway No. 39. Salt spring exists westward on the banks of the Dhansiri at Sunkar.
DRAINAGE:

The Brahmaputra, the principal river of Assam, originates at Tamchod Khambas Chorton in the Chemayung glacier, near the source of the Karnali in Tibet, at an elevation of about 5150m and it takes the name of Tsangpo, running a course of nearly 1600 Kms. in Tibet. It enters Arunachal Pradesh in a southwesterly direction, and is joined by the Dibong from the north and the Lohit from the east at a point near Sadiya. From here it takes the name Brahmaputra. This mighty water stream divides the almond shaped Assam Valley of 725 Km. into two parts-northern and southern. The Brahmaputra, in its middle course, is met by the Dhansiri at Bogiduar Chapori, generally called Dhansirimukh in Golaghat District. Its flow is sluggish and often forms almond shaped banks, Guwahati, Tezpur Goalpara Dhubri are situated on its banks. Beyond Dhubri, the river turns southward round the spurs of Garo hills and then enters the plain of Bangladesh. It joins Padma, a branch of Ganga, before emptying into the Bay of Bengal.

THE DHANSIRI:

The name Dhansiri appears to be a sanskritised form of some native term, as indicated by its suffix Siri, popularly called Siri. Siri is also found as a suffix to another river e.g. the Dilsiri (the ancient name of Kakodonga) of this region. Most probably, Dhansiri was named by adding Dhan (meaning "wealth") to suffix Siri. This was possibly done to signify the fertility of the as well as the richness of the region for its mineral wealth, particularly iron. The entire expanse of territory between the Dhansiri and the Dilsiri is rich in iron slags. The common occurrence of the waste of smelted iron slags is indicative of the natural richness of this region.

It may be noted that the name 'Dhansiri' was given to it by outsiders or non-Kacharis. Because, the native Kacharis call this river Dima (Dima = "water", mā = "great" or "mother") meaning "mother river". A section of the
Kacharis i.e. the Dimásā Kacharis claim themselves to be as the sons (sā) of the river Dimā (and hence the word) Dimasā. It may be recalled that Di or Doi is a native Bodo-Kachari term for "water", and occurs as prefixes to several rivers names in Assam.

The Dhansiri is a southern tributary of the Brahmaputra and is considerably large. It rises from the northern flank of Thingubam peak about 6128 m. above the sea level. In North Cachar Hills District, the river flows northeasterly, forming the natural boundary between Nagaland and Assam. It then takes a slight turn towards north west and flows by the side of villages of Kaladisa, Watidisa and Sonapur. At Sonapur this river turns north and forms the natural boundary between the districts of Golaghat, Karbi Anglong and the State of Nagaland. By taking a slight turn it enters Nagaland and touches Dimapur. The river again touches Karbi Anglong district at Bokajan and reaches Nambor Reserve Forest from where, by an easterly course reaches Kamargaon. Advancing further near to Golaghat it is met by its principal tributary, the Doiyang. The confluence is called 'Duinoimukh' and is located to the southwest of Golaghat town. Beyond Golaghat, the river takes a northwesterly direction and, flowing further by taking a number of braided courses, falls at the Brahmaputra. Dhansiri covers a total distance of 352 Kms with a catchment area of 1220.98 Sq.Kms. The river was earlier navigable for boats with a capacity upto four tons or above, for about nine months in a year. The river trade carried on by Dhansiri river consists of the export of cotton, lac, and Indian rubber brought down from Naga hills and North Cachar.

THE DOIYANG:

The Doiyang is the principal tributary of the Dhansiri. Its uppermost course lies at mount Zapvo of the Naga hills. It flows north to the region inhabited by the Sema Nagas who call it Tapu, and after turning west and south, emerges from the hills inhabited by Lotha Naga. The river enters the
plains in the southern part of Golaghat District at a place called Sarupani. Descending the plain, the river flows to the north through Kasomari pathan. Among the hills the bed of the river is pebbly and rocky, but in the plain it is sandy. It carries a large number of smooth stones of blackish colour identified as shale of Disang sediments of lower Tertiary - upper Cretaceous Age (Supra).

At its middle course, the Doiyang is joined by the Rengmapani, Lengtajan, Zalu and Siju, all having their upper courses at Barail Range. The Doiyang falls into the Dhansiri at Duinoimukh, to the west of Oating at about 12 Km to the southwest of Golaghat town. It is 200 Km long and its total catchment area is 7224 Sq. Km.

The Doiyang is a turbulent river and gets tremendous momentum during monsoon, and causes serious changes in its extreme sinusoidal course. Its dead meandering courses are known as Mora Doiyang. The Doiyang was probably once an independent stream and was more dominating than the Dhansiri in ancient times, for which the region retained the name of Doiyang which the Ahoms applied for administrative division of lower Doiyang Dhansiri Valley during mediaeval period.

The Doiyang in remote times was possibly flowing via the present Singijan channel flowing in the east of Ferkating. Its present course via the Dhansiri might be of recent origin emerging possibly under geological pressure.

**Other Tributaries:**

**The Diphu:** The Diphu arises from the Barail ranges and flows in northern direction forming a natural boundary between Nagaland and the southwestern part of Golaghat. It continues to flow in this direction and meets the Dhansiri at a point a few kilometers to the north of Dimapur.
The Chungajan: The Chungajan originates at the Barail Ranges and flows in the northwesterly direction. In the plain it is called the Dighali. Continuing its course further northwest, it gets the name of Chungajan and falls at Dhansiri near Bokajan.

The Nambor: The Nambor rises at the Singhasan Hills at 1357.5 M height from sea level. It is, therefore, a fast flowing river and its beds are rocky, and it develops a number of waterfalls. Of these, Fatasil is well-known.

The Thorajan: The Thorajan rises from the hilly ranges of Karbi Anglong, and flows in the northeasterly direction and falls at the Dhansiri near Kamargaon.

The Koliyoni: The Koliyoni originates in the Karbi Anglong Hills and flows in the northerly directions across the hilly tracts of Karbi Anglong and meets the Dhansiri near Kamargaon. Both the banks of this river have extensive forests.

The Deopani: The Deopani has its source in the hill range of Karbi Anglong, and empties itself into the Difalu at Gotonga. Formerly it was navigable."

Of the several other minor tributaries mention may be made of the Kalpani Nola, the Bordikharu, the Horaghati, the Chalabor Nola and the Deothar.
OTHER RIVERS:

The Difoloo: It rises on the northern flank of Karbi Anglong and flows in westerly direction, and crossing the southern Brahmaputra plain through the district of Nagaon to unite with the Brahmaputra. Several minor streams flowing down from the hills of Karbi Anglong join this river.

The Ghiladhari: It rises in the Naga Hills and flows through the ferruginous soil of southeastern Golaghat, known as Bossa-Doiyang, and falls at the Kakodonga. The total length of the river is about 30 Km. The bank of this river consists of very firm soil and the bottom is formed of sand.

The Kakadonga: As said above, the Kakadonga was formerly known as Dilsiri. Its suffix 'donga' appears to be derived from Austric term 'dong' meaning water channel. Kakadonga rises in the Naga Hills and flows in northerly direction, forming the natural boundary of Golaghat and Jorhat districts. It takes a little westerly turn near Negheriting before joining the Brahmaputra.

The Dholi: The Dholi rises from the Naga hills and flows through the region of Pokamura and falls in the Kakodonga.

The Loadong: It is a small stream that emerges from Rahdholapukhuri near Dhekial. It flows through Rahdhol pathar and crosses National Highway No. 37 near Dergaon and falls at Gelabil. Enormous quantity of smelted iron slags are found around its source at Rahdholapathar. It is almost certain that large scale extraction of iron seem to have connected its source with ground water, which flow out in a stream called loādong (infra).
Floods and Earthquake:

Both the rivers Dhansiri and Doiyang with their tributaries, carry tremendous volume of water and silt discharge during rains. The channels are then chocked up with detritus, and active erosion of the banks diminishes the water holding capacity. These hydrological conditions naturally result in the swelling of the rivers, causing flood and tend to change their courses.47

The great earthquakes of 1548, 1596, 1642, 1663, 1786, 1839, 1840, 1841, 1842, 1843, 1869, 1887, 1930 and 1950,48 had greatly disturbed the river beds in Assam and increased the intensity of flood. Large scale land slides of river banks in their hilly courses and subsequent transportation of tremendous volume of detritas into river beds resulted in shallowing the river beds, and as a result during monsoon the rivers inundate their valleys and leave behind thick deposits of alluvium, making the country fertile.

Passes and Routes:

The Doiyang-Dhansiri Valley has been connected with the rest of India and South East Asia by a number of routes. It is believed that the Indian king Samunda, who was ruling in upper Burma in A.D. 105 must have proceeded thither through this region.49

Pemberton gives the account of a route from Manipur to Jorhat via the Doiyang-Dhansiri Valley.50 At the Naga village of Chumokhuti, it bifurcates—one goes to the Moohong village in North Cachar Hills and the other over the bed of Dhansiri to the Sariyahjan Nallah. At Sariyahjan Nallah another route is approached by from Moohong. The travelling distance of both the routes, from their point of divergence to the mouth of Sariyahjan Nallah is 70 Km. in distance.
From Sariyahjan Nallah to Borphalung (Borpathar) the distance is 44 Km, and can be reached through the sandy bed of the Dhansiri river. From Borphalung (Borpathar) to Nogora village, on the right bank of river Doiyang, the distance is 210 Km. From Nogora to Jorhat the distance is 50 Km.

The total distance from Sengmee in Manipur to Jorhat is 355 Km. By the circuit of Moohong the distance is 412 Km which is opted while proceeding from Moohong to Biswanath, Raha choki or Guwahati.

Another route commences at Segonmang village in the Manipur Valley to Nogora, continues up to valley of Eeril nullah, Sagonmang summit of the central ridge at Kaboome, and reaches Barak Valley from the junction of Beereme and Rengma rivers. The remaining portion of the route to Nogora is 100 Km and passes over the beds of Doiyang and Rengma rivers. Along the right bank of the Doiyang, the path continues to Nogora, wherefrom it leads to Jorhat.

The *Shung-shu* (A.D. 420-79) mentions that a king of the Kapili valley in Assam sent an embassy to China, thus indicating the existence of an ancient route to China, and perhaps this was the Assam-Burma route. Assam's link with the rest of India is wide open. The route lies through the alluvial tract of the Brahmaputra Valley and passes through the plain of the Ganges.

The Ahom king Suhummung mobilized a large army against the Kachars in A.D. 1531. Marching up the Dhansiri, this army via places like Nika, and Dengnut and finally reached Dimapur. During the Ahom rule, the Dhodor Ali connected the Valley with the Ahom capital at Garhgaon. This road starts from Kamargaon and runs southwest to Golaghat and, turning east, runs unto the Dilli beyond Sapekhati covering a distance of 192 Km. Other important roads were from Golaghat to Negheriting, Golaghat to Wokha and Golaghat to Dimapur.

There existed two routes viz: The Dhansiri Route and the Kapili Route. The Dhansiri route started from Sala and, ascending the valley of Dhansiri, reached the fort on Dijoa Hill, covering a distance of 170 Km from Sala. The
route is as follows: Sala to Naga Choki, on to Deopani, to Dilao fort, to Kakajan, to Tin Muri and finally to Samaguting. The Kapili route lies via Raha and the valley of Kapili. Both Dhansiri and Kapili routes leading to Maibong in North Cachar were under the control of Ahom kings during the mediaeval period. King Rudra Singha (1696-1714) sent an army of 37,000 men under the Borbarua to Maibong by the Dhansiri Valley, while another army of 3400 was sent under the Pani Phukan via Raha and Kapili valley. The Borbarua started from Sala in 1706, and proceeding by Dhansiri route, reached Samaguting fort on Dijoa hill, 150 Km. from Sala.57

The Ahoms had control of the route leading to Doiyang-Dhansiri Valley. The route was via Kardoiguri, Katoha Samaguting, Demera, Gelemu, Jatragarh hill. Doiyang fort, Baila hill, Mahur Hill, and Maibong.58 Existence of these passess indicates possible human migration across the Doiyang-Dhansiri Valley since ancient times.

The Climate:

The Doiyang-Dhansiri Valley, being an elongated territory expanding southward like an arch from the Brahmaputra Valley, ideally represents the climate characteristics of the Brahmaputra Valley. The Brahmaputra Valley in this region is the widest.

The Shillong Plateau has a rain shadow effect over the Valley and also surrounding Brahmaputra Valley. Therefore, the Doiyang Dhansiri Valley in particular and Assam Valley in general form an integral part of the South East Asiatic Monsoon land. However, its peculiar orography plays a dominant role in causing the local weather phenomenon and its climatic individuality of the humid mesothermal type. The Assam Valley falling within the Southwest monsoonal regime, receives a mean annual rainfall of 1184 mm. Mean annual rainfall received at different stations in the Dhansiri river basin during 1970-1990 is as follows.59
Stations Mean Annual Rainfall (mm) Station Mean Annual Rainfall (mm)
1 Borchapori T.E. 695 9 Negheriting T.E. 1481
2 Murphuloni T.E. 1317 10 Golaghat T.E. 1146
3 Naharoni T.E. 1131 11 Rengma T.E. 1680
4 Badulipara T.E. 1228 12 Bhagawan T.E. 1303
5 Karunating T.E. 1445 13 Mokrong T.E. 1793
6 Borjan T.E. 746 14 Jalukie T.E. 1400
7 Chatajan T.E. 856 15 Tseminyu T.E. 1350
8 Rangamati T.E. 1594 16 Sarupathar T.E. 1122

The general climatic condition of the Assam valley and the Doiyang-Dhansiri Valley for the last 50 (40 + 10) years showed muggy conditions characterised by high humidity and moderate temperature (Fig. 3).

It is from October that the intensity of rainfall decreases sharply along with a gradual fall in temperature, which finally renders the month of December very cold. Drizzles and light showers commence from March, which gradually intensify into heavy showers of the monsoon ending by October. The wind direction is mainly north-eastern with a speed between 1 and 19 km per hour.

The climate of Assam Valley has thus been considerably influenced by the rainy season and on the basis of a short dry period and low temperature, the climate can be broadly classified into three main seasons:

1) The Spring - Summer
2) The Rainy Season, and
3) The Winter
FIG. 3: THE COMPOSITE CLIMOGRAF OF THE ASSAM VALLEY FOR FIFTY YEARS (1932 TO 1982). IT ALSO PRESENT TEMPERATURE RELATIVE HUMIDITY (RH) AND PRECIPITATION FOR EIGHT YEARS (1982 TO 1990) WITH REFERENCE TO DOIYANG-DHANSIRI VALLEY IN ASSAM.
From mid-February to March is the transitional period that lies between the winter and the rainy season. In this period the field temperature rises from the winter temperature of $17^\circ C \pm 2^\circ C$ to $22^\circ C \pm 3^\circ C$. The relative atmospheric humidity decreases from the winter humidity of $75 \pm 5$ per cent to $64 \pm 5$ per cent. The characteristic of this season is the low precipitation of 53 cm in the form of drizzles with one or two occasional showers.

In the Assam Valley the rainy season happens to be the longest, beginning from the early April and ending with the retreating monsoon in October. The average monthly rainfall is as high as 219 cm. The mean atmospheric temperature prevailing throughout this season is $28^\circ C \pm 3^\circ C$ with an average relative humidity of $78 \pm 5$ percent. The characteristics of this long rainy season are cloudy skies with irregular showers in conjunction with the increase in the atmospheric temperature and relative humidity.

On the basis of the intensity of the precipitation this long rainy season of the Assam valley is divisible into three distinct sub seasons:

This is a transitional period between the comparatively dry spring summer and wet monsoon. The pre-monsoon is considerably short as it covers only March and April. The average monthly rainfall during pre-monsoon is 200 cm. The mean environmental temperature is $27 \pm 2^\circ C$ and relative atmospheric humidity is $70 \pm 5$ per cent. A gradual rise in temperature is usually noticeable towards the end of this sub season. Though the weather remains nearly rainless for most of the period of this sub season, yet occasional hail storms and heavy showers are not uncommon.

The monsoon begins by the later half of May and continues through August after which it starts retreating. This is obviously the long sub-season of the Valley. The environmental temperature has a tendency to rise up to $34 \pm 3^\circ C$ but it gradually starts declining after June due to the heavy rains. Therefore warm, cloudy and highly humid weather is characteristic of this sub-season. The heavy rainfall is mostly associated with the high speed of wind and infrequent storms. The incessant rains continue for weeks and results
in floods in the low-lying areas. In this sub season, the average monthly precipitation is as high as 286-290 cm and the mean temperature records 29±2°C with an atmospheric relative humidity of 82±5 percent. The monsoon retreats during the months of September and October.

The rainfall sharply decreases to an average monthly fall of 140m. The environmental temperature gradually declines to 27 ± 2°C, although the relative atmospheric humidity remains higher at 82 ± 5. In the last phase of this sub season the temperature further falls to 25 ± 2°C and mist and fog starts appearing.

The winter season begins by November and continue upto January. The mean monthly temperature records nearly 20°C±2°C and the relative atmospheric humidity remains normally high at 77 ± 5 percent. The winter season also experiences occasional rainfall due to west monsoon (an average monthly fall of 12 cm) which brings down the temperature sometimes to 7 ± 2°C. January is the coldest month of the year as it experiences a mean temperature of 12 ±3° C. The cols season is characterised by the daily appearance of heavy fogs or dense vapours, having a tendency mostly to occupy the southern side of the Brahmaputra Valley.

The dominant factors that control the climate of the Assam Valley in particular are (a) the orography (b) the alternating pressure cells of the North West India and the Bay of Bengal (c) the predominant maritime tropical air mass (d) the soving periodic western disturbances and (e) the local mountain and valley winds. Besides these five important controls, the sub tropical locations, extensive water bodies, local depressions and the extensive forest areas play important roles in shaping the variable weather conditions. Medium temperature and high humidity are the characteristics of the Assam valley that imposed a muggy climate in general.

As such, the climate of Assam and the Doiyang-Dhansiri Valley has been found to be mostly influenced by the sub tropical muggy climate.
People:

The Doiyang-Dhansiri Valley lies close to the proximity of hilly regions. From immemorial past the Valley served as a cradle both for hill and plain people. As a result an inter-mixture of heterogenous racial texture is found reflected in its ethnic structure.

J.P. Mills and S.K. Chatterjee note the traces of Negrito or Negroids in some tradition and physiognomy of the Nagas. The tree motifs carved in megalithic remains at Dimapur and Kasomaripathar which seem to be the representation of the Negrito belief associated with the cult of ficus tree, indicate early movement of Negrito people to the Doiyang-Dhansiri Valley. (infra)

It seems possible that some primitive Austrics migrated to the Valley in distant past, as far as indicated by the Austro-Asiatic language elements such as don, doni found in the river names of the Valley.

Thus the Negrito, followed by the primitive Austric speakers are believed to be the earliest inhabitants of this valley, who were later on driven to their present mountaneous regions by the Tibeto-Burman people, mostly represented by the Kacharis.

The Tibeto-Burmans, who migrated to the Valley during subsequent period, seem to have been represented mostly by the Kacharis, as indicated by the river names with prefix di or doi. River names such as Doiyang, Doigrung, Dima, Dilsiri of this region suggest Kachari domination in Doiyang-Dhansiri Valley for a long period of time. The earliest reference to the Kachari domination in this valley is noticed in the term dibrumukbadab, found in the Nagajori Khanikargaon Fragmentary Stone Inscription Hamdoi, a large paddy field in Golaghat, and Dimapur, i.e. the city built on the bank of Dima i.e. Dhansiri, indicate long association of the Kacharis in the Doiyang-Dhansiri Valley.
The physiognomical differences such as short and stout stature with pot-belly occurred in stone sculptures may indicate native physiognomical texture of the Kacharis inhabiting the Valley. This factor, it seems, may provide for the Mongoloid origin of the inhabitants, who had affinities with the tribes of south-west China having short stature. These tribes were welded into a race under Brahmanical influence, while sections of them seem to have continued their ancestral belief, such as tree-worship etc.

The Kacharis who were long back Hinduised, normally dwell on low spurs of hills, foot hills and on alluvial plains, are an active, peaceful and industrious people. Large Kachari villages are now found in Kasomaripathar, Kamargaon, Titabor, Borhola, Dergaon, Dimapur and other areas in the Valley.

Discovery of inscribed Brahmi characters at Duboron (pl.18A) affords definite information as to the presence of Indo-Aryans in the Valley in the A.D. 200-300 (infra).

It seems probable that, brahmanical religion was expanded to the non-aryan tribes of the Valley. Aborigional elements of blood sacrifices were possibly absorbed into brahmanical fold to encourage the process of conversion. A large section of the people was perhaps in the lower stage of conversion. The existence of a number of sacrificial than e.g. the Deopangi Durgā Than, Kaka Gosāni Than Kotohāguri Than, where non-aryan tribes traditionally offer blood sacrifice, indicates such a possibility. Besides, the discovery of numerous figures of Hindu gods and goddesses, including those of saptamāt̄r̄ka figures indicate that the followers were possibly provided with option to worship any Hindu deity of choice. During the mediaeval period also Brahmanas were given settlement by the Ahom Kings at Dergaon and Morongi (infra).

The Kalitas, an Aryan group possibly migrated to the Valley in long distant past. The Kalitas are said to have officiated as priests of the tribes like Kacharis, Koch and others adopting Hinduism. The Kalitas dwelling in the
Doyang-Dhansiri valley might, therefore, be the remnants of these priests who continued to hold brahmanical pope in. The village official mahattara Brahmadatta by name as found in the Nagajori Khanikargaon Fragmentary Stone Inscription7 seems to be a kshatriya, and possibly belonged to the Kalita class.

The Kalitas, are also said to have belonged to the powerful and civilized nation called Kolitas or Kultas and linked up with the Kolitas, the founder of the Kulu kingdom of Kashmir in B.C.4007 The Kalitas of the valley work as kumār, kamārzonārihārohi and engaged in other occupational trade Sections of kamār Kalita and Kumār Kalitas, engaged in iron smelting possibly dwelt at Radhholapathar in Dhekial, Kalita goldsmiths are found at Golaghat and Titabor, and Kalita blacksmiths are found at Kamargaon.

A section of the Karbis, who call themselves Arleng, meaning “the Men” migrated long back from South-East Asia and inhabit the hills of Karbi Anglong7. Teron, Inbi, Ingit, Terang, and Timung are the five clans of the Karbis, which are again subdivided into numerous sub-clans, not less than seventy seven.80 The term ‘Karbi’, meaning mountain, is derived from their ritual ‘thekārbī’ by dropping ‘the’ and ‘ki’.

The Karbi believed ‘Shot Ress’ as their primeval king41, call their capital as ‘Rong Chapi’, and the land area of their council ‘Pinpo Aritalo’. The land area beyond the council is called ‘Jiroy’, and the people dwelling in ‘Jiroy’ are called ‘Mekār’ meaning common people. The term ‘Mikir’ by which the Assamese called the Karbis possibly derived from the term Mekār as Physically. Karbis are a squat mongolid race, flat nosed, rather small eyed, and mild.81

Scattered population of Noga tribes are found to the east and west of Doyang and Dhansiri rivers Nagais a generic term and is variously interpreted as ‘snake’ ‘naked’ and highlander.86 S.P. Peal thinks it to have been derived from ‘nok’ a word used by some eastern Naga tribes for ‘people’ or alternately the term Naga seems to have been derived from the Sanskrit word Nāga meaning mountain7. A Section of Rengma Naga, migrating from
tracts of Nidzukhru and wokha hill dwell in the Mikir hills. Sections of Nagas seem to have travelled across the Valley, to barter their products, and thereby developed cultural ties between the hills and the plains.

The Mishing, a section of the Mongoloid people, are found settled in the lower part of the Valley. They are matriarchal, and lead an agricultural life. Mishing villages found at Bongaon, Muhuramukh, Mariahola in Bokakhat are large.

The Chutias, a section of Tibeto Burman race, dwell in large villages in the Valley. Formerly, they spoke the Bodo language, now possibly known only to the Deoris, their priestly class. The Chutias, who are now Hinduised, have considerable infusion of Shan blood in their appearance, and they are of light olive complexion, generally with a flat nose and want of sharpness in facial features. The Chutias had a kingdom at Sadiya, which was occupied by the Ahoms in A.D. 1523, who forced them to settle in other areas. Socially, a section of the Chutias are now akin to Ahoms and intend to describe themselves as Ahom Chutia.

The Kaivartas dwell in groups and their residences are found distinctly set apart for their own community. The Tezpur Rock Inscription of Harzara Varman dated A.D. 830 records the Kaivartas as "boat tax collector". The existence of Kaivarta villages indicates that they were most probably engaged in catching fish by plying boats. The Kaivartas are referred to as a mixed caste, possibly degraded during early historical period for adopting the vocation of "dbivara or fisher man."

Sections of Ahoms, who belong to the Tai or Shan race are found settled in the Valley. The Ahoms are predominantly Mongoloid and exhibit very softened type of Indo-Chinese features. The Ahoms first appeared in the socio-political senerio as a conqueror of the native Kachari kingdom in the Doiyang-Dhansiri valley and defeated Dersungpha, the Kachari king at Dergaon. The Kacharis were further pushed back beyond the river Dhansiri, and the Kachari capital at Dimapur was finally occupied in A.D. 1536.
Ahom king Suhungmung, appointed a permanent governor known as Morongi Khowa Gohainto to administer the lower Valley of the Dhansiri with its headquarters at Morongi. The descendents of the Ahom royal families are found scattered in the Doiyang Dhansiri valley. The Ahoms during mediaeval period provided strong and stable administration, which led to the cultural and material progress of the people living in the Valley.

Besides the Ahoms, other offshoots of the Tai or Shan race found in the Valley are the Turungs and the Aitons who migrated from Burma. Linguistically and ethnically the Turungs and the Aitons are akin to the Ahoms, the Phakeys, the Khamyangs and the Khamtis of Assam. The Turungs and the Aitons in small groups or villages are found in Titabor, Sarupathar and Barpathar of the Golaghat, district and Balipathar in the Karbi Anglong district respectively.

The Aitons maintain a tradition that they originally migrated from the Upper Chindwin valley and for a period settled together with the Khamtis near Sadiya. They finally reached Kaliyoni in Golaghat, from where a section moved to Borpathar in the Valley. Aiton villages are to be found at Bilgaon, Kaliyani, Chilonijan, Borpathar, Borpham gaon, Chakihola, Duboroni and Rajapukhuri. The Turungs and The Aitons are Theravada Buddhists and maintain vihāras in their villages.

The Muslim invasions had brought Muslim soldiers and warriors, who were later given settlement by Ahom kings, Muslim artists and artisans were also invited by Ahom kings. A large section of Muslim population are found at Nahoroni in Dergaon, Golaghat, Titabor, Kacharihat, Khumtai and Fecuwal.

The immigration of Bengali people was encouraged by the British officials who preferred to employ them as clerks, teachers, and officials. The extension of Assam-Bengal Railway passing through this valley also increased the Bengali population, whose small settlements are noticed in the Valley.
Tea Garden labourers, whose services in tea gardens were first introduced by the British, came to the Valley leaving their ancestral home at different parts of India, viz., Bihar, West Bengal, Orissa, Madhya Pradesh, Uttar Pradesh, Andhra Pradesh, Maharashtra and Tamilnadu. These workers are dark in complexion.

The Marwaris, a section of tradesmen from Rajasthan migrated and settled in the Valley. This community opened a number of shops (gola) at places like Golaghat.

Sections of Nepalis, migrated from Nepal to the Valley who resort to cattle rearing and agriculture as their primary occupation. They are generally found on the river side of the Valley eg. the Sagunpara village in Golaghat. Scattered villages of Manipuri are found in all towns such as Dimapur, Duboroni, Golaghat.
References and Notes:

8. The valley has several reserved forests, viz: Dhansiri Reserved Forest, Kasomari Reserved Forest, Rengma Reserved Forest, Gomari Reserved Forest etc.
10. The regions of Deopani, Kathkatia Village, Kacharihola are some of the areas of the valley having undulated landscape.
16. H.P. Das *op.cit.*, p. 20
19 M.S. Krishnan, *op. cit.*, pp. 133-34
32 J.P. Wade, *op. cit.*, Appendix, p. 27.
33 The region may have some link with the "Country of Seres", A description of the country of Seres may be found in *Classical Accounts of India*, (ed.) R.C. Mazumdar) 1960, pp. 347-48.
A popular ballad sung by a section of the kacharis of Kasomaripathar narrates the marriage of the Doiyang with the Dhansiri, which may indicate the union of the Doiyang with the Dhansiri as an event that occurred at a period in the not very distant past.


"loa" is associated with "iron" and "dong" with "water channel". This indicates that this stream was associated somehow with iron smelting.
E.A. Gait, *op. cit.*, p. 93.


S.K. Chatterjee, *Kirata-jana-krti*, 1951, p. 4


B.K. Kakoti, *op. cit.*, p. 27. River names with suffixes of *donga, dong*, are found in the region, indicating early movement of the Austric people to the valley.

T.P. Verma, in his paper "Fragmentary Stone Inscription from Khanikargaoon in Sarupathar" read in Indian Epigraphical Society, at, Guwahati in 1987, held that the term *dibrumukhada* indicates mouth of river *Dibru*, with Bodo prefix *di* meaning "water". The site where the said inscription was found indicates the existence of a dead water stream.

The name Dimapur might have been derived from the term Doimapur. By the term *Doma* the Kacharis signify water mother or river (Dhansiri) on the bank of which the city (*pur*) was built.
Carving of trees found in megalithes at kasomaripathar and Dimapur. It is notable that the kacharis worship a variety of tree called shiju.


ibid.


Longkam Teron, *Mikir Janajati* 1961, pp. 3-4

ibid., p. 17.


ibid. p. 42.

E.A. Gait, *op.cit.* p. 41.
93  E.T. Dulton, _op.cit._ p.79.
94  E.A. Gait, _op.cit._, p. 43.
95  _Ibid._, p.41.
96  M.M. Sharma, _op.cit._ p. 84.
97  R.C. Mazumdar, _History of Ancient Bengal_ , pp. 437-38
98  S.K. Bhuyan, _op.cit._, p.11.
99  E.A. Gait, _op.cit._, p. 301.
100  _Ibid._, p.99
101  L.A. Waddell, _op.cit._, p.65.