CHAPTER I

NORTH EAST INDIA : A PROFILE
INTRODUCTION:

North East India comprises the states of Assam, Manipur, Meghalaya, Nagaland and Tripura and the Union Territories of Arunachal Pradesh and Mizoram. Because of its geographical contiguity, the district of Darjeeling (West Bengal) is also included in the region.

To a casual eye the region looks like a blooming flower with Mizoram as its stalk, Tripura and Manipur as its bottom petals, parts of Assam and Meghalaya as its embryo, Nagaland, the rest of Assam, Meghalaya and Arunachal Pradesh constituting several of its petals in deep hue.

PHYSIOGRAPHY:

North East India lies approximately between 22° N and 29.5° N latitudes and 87.5° E and 97.5° E longitudes. There are five physiographic divisions, namely,

(a) The Mountain Ranges of the Northeastern Frontier or the Eastern Himalaya

(b) Southeastern Hill Ranges or Purvanchal

(c) Meghalaya Plateau

(d) Brahmaputra Valley and

(e) Cachar Plain.

THE EASTERN HIMALAYA:

The highly rugged and towering mountain ranges of the Eastern Himalaya stretch from Sikkim in a westerly direction through the bulk of
Bhutan and Arunachal Pradesh and extend beyond Namcha-Burwa, the highest peak in the region with an altitude of 7,756 metres. To the east of Namcha-Burwa, there is another peak called Gyla Par. The River Tsampo or Brahmaputra as it is known in the plains below curves round these two peaks in a 'hair-pin bend' and changes its easterly course to a westerly course.

This Himalayan region has several sections: Bhutan Himalayas extending from Sikkim to Dhansiri river, Aka hills from Dhansiri to Dikoral river, the Dafla hills from Bharali river in the west to Rangsnadi in the east, Miri hills lying north of Lakhimpur district, the Abor hills between the Siom and Dibong rivers and the Mishmi hills between Dibong and Dihang rivers.

Most of these hill ranges have steep and cutting edges in the south. The rivers are often turbulent and they make steep gorges into the mountains. There are also several glaciers and one important lake, Tegrong Tse in this region.

Because of the difficult terrain and topography of the region, the international boundary with Tibet and China could only be vaguely fixed at what is called the Mao Mahan line.

SOUTH EASTERN HILL RANGES OR PURVANCHAL:

Purvanchal is a collection of hill ranges extending from the Eastern Himalayas in a north-south alignment. Beginning with the Patkai and Naga hills, these hill ranges project south into Manipur and Mizoram and extend further down to Arakan-Yoma in Burma. The highest peak
among them is located at Saramati in Naga Hills. It reaches an altitude of 3827.37 metres.

MEGHALAYA PLATEAU:

The Meghalaya Plateau is rectangular in shape and it runs in east-west direction. Composed of crystalline rock formation similar to that found in peninsular India, it is, in fact, considered to be an extension of the Deccan Plateau. While it rises steeply from the Surma Valley in the south, it slopes gently towards the Brahmaputra Valley in the north. It has four parts named after the four groups of hills included in it. They are the western part of the Garo Hills, the Central part of the Khasi Hills, the Eastern part of the Jaintia Hills and the Detached part of the Mikir Hills. The plateau is the highest in the Central part where its height averages to 1220 metres above sea level. The eastern and western parts of the plateau have an average height of 915 metres above sea level. There are a few broad level stretches. Shillong peak which rises upto 1961 metres is the highest peak in the region. The plateau covers a total area of about 36,260 sq.km.

THE BRAHMAPUTRA VALLEY:

The Brahmaputra Valley is the most important physiographic zone in North East India. As much as 80% of the population of this region lives in this valley. It is bounded on the north by the Eastern Himalayas and on the south by the Meghalaya Plateau. The Himalayan Ranges can be seen rising majestically into the misty sky when viewed
from the valley. Starting from Sadiya in the north, the valley runs south-westwards up to the Mikir Hills. Thereafter, it extends westward till it merges into the North Bengal Plain. It is about 725 km. long and 80 to 129 km. broad. The Brahmaputra which drains the valley is also seen dividing it all along its length into the northern and southern halves.

CACHAR PLAIN:

Cachar Plain is a portion of the Surma Valley. It is built up by the detrital materials carried by the river Surma and its tributaries. The valley has a length of about 200 km. and an average width of about 96 km. On the north, it is abruptly demarcated by the Garo Hills. The south-eastern boundary has a different alignment. Long spurs of hills project from Tripura and Mizo Hills. They are interspersed by low hills and broad valleys. Notable among the tributaries of the Surma flowing in the region are the Barak and Kushiara. The flood waters accumulate in the depressions giving rise to many marshes which dot the countryside.

THE BRAHMAPUTRA RIVER SYSTEM:

North East India is known not only for its mountain ranges of a marked variety but also for the mighty Brahmaputra and its numerous tributaries. On its cross-country course, this great river houses and hosts many a hamlet and town on both its banks and sustains the bulk of the people who look upon it as a symbol of their culture and civilisation. But the Brahmaputra is also the principal source of their
misery, for almost every year it causes floods during the monsoon and
submerges vast tracts of the adjoining areas.

Known by the name Tsangpo in Tibet, the land of its origin,
this mighty river runs eastward through the snowy regions of the Eastern
Himalayas till it reaches a spiralling peak called Namcha-Barwa where it
takes a 'hair-pin' bend, flows south-west into the Siang district of
Arunachal Pradesh where it is known as Dihang, and coursing further south
through deep gorges reaches Sadiya where it is joined by two of its
prominent northern tributaries, Dibang and Lohit. The Sadiya confluence
is significant for here the Brahmaputra gains both volume and velocity.
Here again, it takes a westerly direction and flows past the plains of
Assam which lie between the sub-Himalayan ranges including the Miri and
Dafla Hills in the north, the Patkai, Naga and Mikir Hills in the south.
Many more rivers flow in these Hill ranges before they finally flow into
the Brahmaputra. Broadly speaking, these feeder rivers of the Brahmaputra
fall into two groups, the northern and the southern. The former includes
such important rivers as the Subansiri, Ranganadi, Dikrong, and Shareli.
The latter consists of Dibru, Burhidihing, Disang, Dikhov, Jhanghi,
Bhogdai, and Dhansiri. All of them except Burhidihing find their sources
in the Naga Hills and are mostly rain-fed.

Thus the mighty Brahmaputra provides the main drainage system
in the region. It also divides the region more or less into two equal
halves. On its eastward course, it runs upto Dhubri where it turns south
and enters Bangladesh and thereafter flowing further south it finally
finds its confluence in the Bay of Bengal.
CLIMATE:

North East India has a typical climatic personality incomparable to any other part of India. Though in general it forms an integral part of the South East Asiatic Monsoon Lands, its peculiar orography plays a dominant role in determining its climatic individuality. Among other factors influencing its climatic conditions are (a) the alternating pressure cells of Northwest India and Bay of Bengal (b) the predominant tropical air mass (c) roving periodic disturbances (d) extensive water bodies, local depressions and forests.

The cycle of seasons is slightly different from that obtaining in other parts of the country. The monsoon figures most important. Winter is brief and remains dry. There is practically no summer. The approximate breakup of seasons is of the following order: (a) winter (b) pre-monsoon (c) monsoon and (d) retreating monsoon.

The predominance of the monsoon contributes to humidity and heavy rainfall in the region. Parts of Arunachal Pradesh, Mizoram, Meghalaya Plateau, Nagaland, Manipur, Upper Assam Valley, Cachar Plain experience heavy rainfall. Cherrapunji which lies at 57 km. south of Shillong receives an annual rainfall of 12,033 mm. Mawsynram, a village situated on a similar plateau as the Cherra plateau, about 16 km. west of Cherrapunji, records the highest rainfall in the world into 13,988 mm. (based on the recent averages).

It is noteworthy that the climate of the Central part of the Khasi and Jaintia Hills is salubrious.
DEMOGRAPHY:

Over 20 million people of diverse ethnological and cultural patterns live in this region which covers a total area approximately of 250,000 sq. km. A break-up of the area and population of individual political units in the region may be shown as follows:

<table>
<thead>
<tr>
<th>Area in sq.km.</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assam</td>
<td>78,523</td>
</tr>
<tr>
<td>Manipur</td>
<td>22,356</td>
</tr>
<tr>
<td>Meghalaya</td>
<td>22,489</td>
</tr>
<tr>
<td>Nagaland</td>
<td>16,527</td>
</tr>
<tr>
<td>Tripura</td>
<td>10,447</td>
</tr>
<tr>
<td>Arunachal Pradesh</td>
<td>83,578</td>
</tr>
<tr>
<td>Mizoram</td>
<td>21,087</td>
</tr>
</tbody>
</table>

Assam is the most populous state in the region and its density of population approximates to the national average of 180 per sq. km. The remaining political units in the region except Tripura are sparsely populated. Arunachal Pradesh is the largest in the extent of its area but its density of population is just 6 per km. which is the lowest in the country. In Mizoram the density of population is 16. In the Mikir Hills and North Cachar Hills of Assam it is 36, and 15 respectively. In the region as a whole, the density of population is approximately 80 per km., which is far less than the national average. The Hill regions with a low density of population are sharply contrasted with the more densely populated plains areas.

* Based on Census of India, 1971.
All the units in the region experience a growth rate in population higher than the national average of 24.57 per cent for the decade ending 1961-71. Nagaland has registered a growth rate of 39.64 per cent which is the highest in the country. Manipur and Tripura are two other states in the region showing a very high growth rate. A reason for the high rate of population growth in otherwise sparsely populated Hill regions could be the increase in the number of migrants from the more densely populated plains in the neighbourhood and elsewhere.

The region has a predominantly rural population. The proportion of urban population to total population is rather low. In Arunachal Pradesh it is lowest being just 3.12 per cent. Though far more advanced than any other state in the region, Assam has no more than 8.39 per cent of her population living in urban centres. Manipur has shown an appreciable increase in her urban population which rose from 8.68 per cent in 1961 to 15.25 per cent in 1971. In sharp contrast to Manipur, Tripura with a 9.02 per cent urban population in 1961 experienced a reduction in the same to 7.82 per cent in 1971. The number of towns in the entire region is just 101. Out of these, only Gauhati in Assam has a population exceeding a lakh.

The percentage of literacy in all states of the region is either approximating the national average of 29.34 per cent or slightly higher. It is highest in Manipur being 52.80 per cent. In the Union Territory of Arunachal Pradesh it is the lowest being only 9.34 per cent. The not so unhappy a position in regard to literacy in the Hill regions
especially is to be explained partly by the efforts made by Christian Missionaries in promoting the same even in the remote areas. Significantly, Arunachal Pradesh being generally insulated from missionary activities shows up a poor percentage of literacy.

North East India has a tribal population of over 4.3 million. The Union Territories of Arunachal Pradesh and Mizoram are completely tribal in composition. So are the states of Nagaland and Meghalaya. In Manipur 80 per cent of the area is covered by hills inhabited by various tribes. Tripura has 60 per cent of its area covered by hills inhabited by Hill tribes. Two of the ten districts of Assam are predominantly tribal in composition.

The tribal population of the individual political units in the region is as follows:

<table>
<thead>
<tr>
<th>State</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assam</td>
<td>16,06,648</td>
</tr>
<tr>
<td>Meghalaya</td>
<td>8,14,230</td>
</tr>
<tr>
<td>Nagaland</td>
<td>4,57,602</td>
</tr>
<tr>
<td>Tripura</td>
<td>4,50,544</td>
</tr>
<tr>
<td>Manipur</td>
<td>3,34,466</td>
</tr>
<tr>
<td>Arunachal Pradesh</td>
<td>3,69,408</td>
</tr>
<tr>
<td>Mizoram</td>
<td>3,13,299</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>43,46,197</strong></td>
</tr>
</tbody>
</table>

No where in India are there such a large number of tribes as in North East India. And no where else do they present such immense racial, religious, linguistic and cultural diversity as in this region.

* Based on Census of India, 1971.
There are Hill tribes and Plains tribes. There are tribes belonging to native as well as foreign racial stocks. Some tribes are comparatively more acculturated and modernised than others. There are Buddhistic tribes and tribes converted to Christianity. There are tribes embracing Hinduism and others practising native worship called animism. Finally, while most of the tribes are responsive to the efforts of the government to better their lot and bring them closer to the mainstream of Indian society, there are a few that resist and rebel against the process and demand independence. The concept of Indian nationality is yet to make an impression on their minds.

The tribes of Arunachal Pradesh are a class by themselves. They are distinguished from other tribes in the region by the fact that they are comparatively more isolated. But being isolated, they do not always lead a life of idyllic simplicity or pristine purity as one might suppose. They are often rent by internal quarrels and internecine warfare. Their life is again a continuous struggle against the elements of nature. They strive hard to eke out a bare living.

There are about 25 main tribes in Arunachal Pradesh. Some of the major tribes in the Kameng district such as the Monpas, Sherdukpons Khowas and Akas are influenced by the Buddhistic ideals of their Tibetan neighbours. The Daflas are a tribe spreading in East Kameng and parts of the adjoining district of Subansiri. The Aptanis are the most numerous group of tribals inhabiting the Subansiri region. The district of Siang farther east of Subansiri is the home of a few other tribes such as the Gallong, Korka, Shimong, Bokar, Bori, Padam, Pasi and Miniyong. They
are collectively known as 'Abor' or 'Adi'. In this region lies Pasighat, one of the earliest established townships. Pasighat has a modernising influence on some of the tribes, especially the Gallongs. In Lohit, east of Siang will be found the Mishmis organised in three main groups, namely Idu, Digraru and Kaman. The Mishmis consider the house and not village as the primary unit of social organisation. This distinguishes them from all other tribes. Lohit has a few other numerically smaller tribes like the Khamptis, Singphos and Padma. In Tirap which is the south-eastern most district of Arunachal Pradesh are to be found the tribes of Tangsa, Noote and wamoke. The Nootes had closer ties with the plains people and adopted a nominal form of Vaisnavism.

Some of the major tribes have many sub-tribes or clans. The Akas, for example, consist of as many as 11 clans. The Adis are also divided into a number of clans. Each sub-tribe or clan has its own distinctive character.

The Mizo group of tribals include the Lusei, Ralte, Khowlhring, Khiangte, Remashain, Chang, Paihte, Pawi, Hmar, Lakhar, Thado and so on. The Pavis, Hmars, Paihte, and Lakhar are distinct among them.

Meghalaya has its major tribes named after the hills in the regions. Thus there are the Khakis, Garos and the Pnar. The Khakis possess a distinctive form of social organisation in which descent and inheritance are recognised through women rather than men. The Garos, like the Khakis practise matriliney.

Nagaland has 14 major tribes and many sub-tribes. The major tribes are the Angami, Ao, Chakhesang, Chang, Khemungan, Konyak, Lotha,
There are about 28 major tribes in Manipur. Tripura has 19. Thus the Hill tribes of North East India are the most diverse and picturesque kind. The areas inhabited by them are often touching international boundaries. The Kameng, Subansiri and Siang districts of Arunachal Pradesh have a common boundary with Tibet and Burma. Tirap, Manipur and Nagaland have a common boundary with Burma. Mizoram has Bangladesh touching its western boundary and Burma extending on the Eastern and southern boundaries. Tripura is bounded by Bangladesh on all sides except to its East. Mikir and North Cachar Hills alone have no common boundary with a foreign country. Some of the tribes have strong ties - racial, religious and historical with their neighbours across the international boundaries. Further, the National Movement which united the rest of India has but a vague significance for most of them. The emotional integration of these folks with the Indian society is therefore, a great challenge to Indian statesmanship.

Among the plains tribes, the Kaohari and Rabha are prominent. The Kaohari and Koch tribes had kingdoms of their own until they yielded to the superior might of the Ahoms who ruled Assam for six centuries. The plains tribals have had greater opportunities for integration with the rest of the population some of them have even adopted Hindu religion and customs.

The non-tribal population of Assam has a few complex strains. First, there are the Ahoms who were once rulers and who now claim an identity of their own. Then there are Bengalis constituting about 18 per
cent of the total population. The Muslims are another strong minority constituting about 25 per cent of the population. Finally, there are Marwaris and others. Assamese is the mother tongue of about 58 per cent of the people who include all the Ahoms and a sizable section of the Muslims.

RELIGION:

Religion adds another dimension to the diversity in the region. Each religious group is concentrated in a particular area. The Hindus who are numerically the dominant group will be found mostly in the Brahmaputra and Surma Valleys, Cachar Plain, Manipur and parts of Arunachal Pradesh. Christians are concentrated in Meghalaya, Mizoram and Nagaland. Buddhism is fairly widespread among some tribes of Arunachal Pradesh. The Monpas and Shevdekpens of Kameng and Kamptis and Singphos of Lohit are good Buddhists. The plains areas where the Hindus predominate are also the places of Muslim concentration. Other religious groups such as Jains and Sikhs are scattered in small pockets.

Individual political units of the region have the following distribution of major religious communities.*

<table>
<thead>
<tr>
<th>Name of State/Union Territory</th>
<th>Hindus</th>
<th>Muslims</th>
<th>Christians</th>
<th>Buddhists</th>
<th>Sikhs</th>
<th>Jains</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assam</td>
<td>1,06,04,618</td>
<td>35,92,124</td>
<td>3,81,010</td>
<td>22,565</td>
<td>11,920</td>
<td>12,914</td>
</tr>
<tr>
<td>Manipur</td>
<td>6,52,597</td>
<td>70,969</td>
<td>2,79,243</td>
<td>495</td>
<td>1,028</td>
<td>1,408</td>
</tr>
<tr>
<td>Meghalaya</td>
<td>1,57,140</td>
<td>26,547</td>
<td>4,75,267</td>
<td>1,878</td>
<td>1,262</td>
<td>268</td>
</tr>
<tr>
<td>Nagaland</td>
<td>59,031</td>
<td>2,966</td>
<td>3,44,798</td>
<td>179</td>
<td>667</td>
<td>627</td>
</tr>
<tr>
<td>Tripura</td>
<td>13,85,689</td>
<td>1,03,862</td>
<td>15,713</td>
<td>42,285</td>
<td>518</td>
<td>375</td>
</tr>
<tr>
<td>Arunachal Pradesh</td>
<td>1,02,832</td>
<td>842</td>
<td>3,684</td>
<td>61,400</td>
<td>1,255</td>
<td>39</td>
</tr>
<tr>
<td>Mizoram</td>
<td>21,229</td>
<td>1,882</td>
<td>2,86,141</td>
<td>22,647</td>
<td>427</td>
<td>3</td>
</tr>
</tbody>
</table>

* Based on Census of India, 1971.
Each of the major religious communities mentioned above has a number of denominations of its own. The Hindus, for example have such varied groups as animists on one extreme and Tantric worshippers on the other. There are also the Vaisnavites after the teachings of the great saint Sankaradeva. Again, the Buddhists of Arunachal Pradesh belong to different schools.

LANGUAGES AND DIALECTS:

Besides a rich diversity in religion and modes of worship, North East India has a baffling variety of languages and dialects. As many as 420 languages and dialects (over one-fourth of the national total of 1652 languages are known to prevail in this region and what is more, remain in current usage. Some of these belong to the Aryan family of languages while others stem from several non-Aryan groups. The Aryan group includes Assamese, Bengali, Hindi and Nepali—spoken mainly in the Plains districts. The languages and dialects of the Hills people fall into the Non-Aryan group which may be further classified as follows:

Languages and dialects belonging to Austro family, Austro-Asiatic sub-family, Monohmer Branch, Khasi Group, Munda Branch, Tibeto-Chinese family, Sianese Chinese sub-family, Tibeto-Himalayan Branch. Tibetan Group, Promonialised Himalayan Group, Eastern sub-group, Non-monominalised Himalayan group, North Assam Branch, Assam Burmese Branch, Bodo Group, Naga Group, Western Naga sub-group, Central Naga sub-group, Naga-Bodo sub-group, Naga Kuki sub-group, Kachin-group, Kuki-chin Group, Meithei sub-group, Northern Chin sub-group, Old Kuki sub-group, Southern Chin sub-group, Burma Group and so on.
It may be noted here that the Naga Group of languages is as diversified as the Nagas themselves. There are as many Naga languages as the number of Naga villages.

The number of languages and dialects spoken in each area is as follows:

<table>
<thead>
<tr>
<th>Area</th>
<th>Languages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assam, Meghalaya and Mizoram</td>
<td>192</td>
</tr>
<tr>
<td>Nagaland</td>
<td>95</td>
</tr>
<tr>
<td>Manipur</td>
<td>87</td>
</tr>
<tr>
<td>Tripura</td>
<td>112</td>
</tr>
<tr>
<td>Arunachal Pradesh</td>
<td>168</td>
</tr>
</tbody>
</table>

Among the linguistic groups in the Plains, there is a perpetual conflict between the Assamese and Bengalis. The Bodos are another plains group demanding a recognition of their own language. The Bodos constitute about 2.36 per cent of the total population.

NATURAL RESOURCES:

North East India is endowed with a rich flora and fauna and a fairly liberal sprinkling of mineral deposits. The Eastern Himalayas and the sub-Himalayan ranges present a picture of greenery unparalleled in the world. Forests occupy about 35 per cent of the total area. In the lower reaches of the Eastern Himalayas are to be found forests of Oaks, laurels, maples, rhododendrons, alder and birch. Many conifers, junipers and dwarf willows also occur. The sub-Himalayan ranges abound in forests of Pine, Bamboo, Sal, Teak, Sesum, Holleck, Nahar, Bonsum, Tita champa.
and so on. There are also cane forests and groves of tall grass.

There is ample scope for many forest-based industries to be set up. At present there are only a few ply-wood factories, just 2 Match factories and a lone Hardboard factory. In view of a wide variety of Bamboo available in the region, industries for the manufacture of paper pulp and rayon could easily be set up.

The rich fauna in the region adds colour to the life of the people living especially in the Hills. It is also of immense tourist interest. The wild life in the region includes such rare species as the one-horned rhinoceros, the 2-hooved antlered deer, the white winged Wood Duck and the Great White-bellied Heron. Elephants and a great variety of deers and water birds are also found in a large number. Kaziranga which lies at a distance of about 241 km. east of Gauhati is a National Wild Life Sanctuary in the region.

North East India has most of its mineral resources such as Petroleum, Gas, Coal, Limestone, Sillimanite, China clay etc. Concentrated in the Upper Assam Valley and the Meghalaya Plateau.

Petroleum was first discovered at Digboi and Digboi Refinery was the first of its kind in India. Exploratory efforts since Independence led to the discovery of new oil fields at Moran and Mahakatiya and more recently at Lakawa, Redrasagar, Taok and Galeky belonging to the district of Sibsagar, Assam. Assam has a second Refinery in Gauhati. The bulk of the crude oil produced in the state is, however, sent by pipe line to feed another public sector refinery at Barauni in Bihar.
Some of the oil fields of Assam produce enormous quantities of natural gas. Only a fraction of it is being utilized for a Fertilizer Plant at Namrup and a thermal power generator instituted in the same place. The gas may be utilized by many petro-chemical industries.

North East India produces about 1.15 per cent of the total output of coal in India. Most of the coal mines are concentrated in the Garo, Khasi and Mikir group of Hills. A few coal mines are also found at Ledo in Upper Assam. Though the output of coal is small, it plays a significant part as a source of power to many localised industries including tea factories, steamers, mills for the manufacture of tea chests etc. The W.F. Railway is also making use of this coal.

Limestone like coal is also found mostly in the Mikir, Khasi, Jaintia and Garo group of Hills. It is also found in the North Cachar Hills. Limestone is an important ingredient in the manufacture of cement. A cement factory with a capacity of 250 tons per day is being operated at Cherrapunji in Meghalaya.

Sillimanite is another important mineral available in the region. It occurs over a belt 54 by 16 km. in Sonapahar in the Khasi Hills. The annual production of this mineral is over 12,000 tons or approximately 90 per cent of the total output in India.

Iron ore is also available in parts of Goalpara and Kamrup districts of Assam. The total reserves are estimated to be about 50 million tons.

China-clay, Fire-clay, Silicon and Feldspar are also available in certain parts of the region. The Khasi and Garo Hills produce most
of the China-clay and Feldspar. Fire-clay is found with coal seams in Upper Assam and Mikir Hills. Silica materials like sandstone, quartzites are found in various other parts of Assam.

HYDEL AND THERMAL POWER POTENTIAL:

North East India with its inumerable rivers including the mighty Brahmaputra has immense opportunities for the development of hydel power. The hydel power potential of the region is estimated at 12 million K.W. i.e. about 50 per cent of India's total hydro-electric power resources excluding the Brahmaputra which itself has a power potential of 30 million K.W. at 60 per cent load factor on the basis of minimum discharge. This represents one of the biggest concentrations of hydel power potential in the world. At present the Umtru and Umium rivers in the Khasi Hills are being tapped for generation of hydel power. The Umtru Hydro-electric Project has an installed capacity of 8400 K.W. The Umium Project is vastly bigger and has an installed capacity for generating 54000 K.W. of power.

The abundance of Natural gas available in the region could also be utilised for the development of thermal power projects. At present there is one such project established at Namrup near Nabarkatiya in Assam. The Namrup Thermal Project is the biggest gas turbine station in Asia with an installed capacity of 69000 K.W. in the first stage with scope for considerable expansion. There are three other thermal projects in the region based on either oil or coal.
Thus North East India has immense industrial potential based on a variety of forest products, mineral deposits, oil and natural gas and hydel and thermal power resources. Despite these bounties of nature, the region is industrially the least developed part of the country. Large scale industry is yet to make a headway. At present it is confined to the production and refining of oil, manufacture of fertilizers and cement, making of hardboard and a few other sundry things. Whole states such as Nagaland, Manipur and Tripura have not a single large scale industry. The Union Territories of Arunachal Pradesh and Mizoram are equally worse. The states of Assam and Meghalaya alone have made some progress in the direction.

AGRICULTURE AND AGRICULTURE BASED INDUSTRIES:

Agriculture is the mainstay of the people of the Hills as well as plains. It is the principal occupation of over 90 per cent of the people of Nagaland, 87 per cent of the people of Mizoram and 80 per cent of the people of Meghalaya. The position is not materially different in the remaining political units of the region.

The Hills people have a peculiar method of cultivation called 'Jhum' cultivation. They pick and choose plots of land only to abandon them a year or two later and search for new plots. This is often inevitable due to the fact that most of their cultivation is confined to the hill slopes where plots of land lose their fertility after a time following heavy soil erosion during the monsoon. The effectiveness of shifting cultivation depends, however, on the availability of virgin land for
periodical clearing and use. Further, this archaic method of cultivation precludes all attempts to improve agriculture.

In the plains, land is under permanent cultivation but here too agriculture has not improved beyond the use of the traditional plough and the draught animals. Large scale farming with the use of mechanical devices is even now beyond the comprehension of the general peasantry. Use of fertilisers, improved seeds etc. is, however, adopted to an increasing extent.

Rice is the master crop and is raised in all parts of the region. It is, in fact, the staple food of the people of both Hills and Plains. The valley regions rich in alluvial deposits and receiving abundant rainfall are especially suitable for growing rice. The yield of rice per hectare is among the highest in India.

Next to rice, tea is the most important crop in the Assam valley. It is technically the only notable industry based on agriculture in Assam. There are about 750 tea plantations in the state producing over 50 per cent of the total output of Indian tea. Tea is also a major industry in Tripura which has about 50 tea plantations. Assam tea earns about 65 crores of rupees in foreign exchange annually.

Like tea, jute is a commercial crop raised mainly in the lower half of the Assam Valley. The leading jute producing districts are Nowgong and Goalpara. Assam produces nearly 50 per cent of the total Indian jute. Most of the jute goes to feed the jute Mills in West Bengal.

Cotton is another important commercial crop in the region grown mainly in the Mizo, Mikir and Garo group of Hills. The variety being a
short staple cotton, it is suitable for mixing with wool. There are a few power looms but the bulk of the cotton is utilized by the handloom which is a flourishing household industry in the states of Assam, Manipur and Nagaland. There are no caste weavers as in other parts of the country. Every family, high and low has a loom and every girl in a family is expected to be good at weaving before she makes a good bride.

Besides cotton, Muga, Eri and Pat Silks are also cultivated in parts of Assam. Golden coloured muga silk is an indigenous variety produced mostly on a cottage scale at Sualkuchi which is situated on the right bank of the Brahmaputra at a distance of 24 km. from Gauhati. Every family in this famous village pursues the art of rearing silk worms and weaving muga silk. Recently a spun silk mill was established at Jagiroad under the public sector.

Sugarcane, maize, millets, potato and oil seeds are among other crops grown in various parts of the region. In the sphere of horticulture, Meghalaya has begun to show good progress. It produces about 70,000 tons of pine apples, 80,000 tons of oranges and 55,000 tons of bananas every year. Arecanut and betel leaf are also extensively grown in parts of Assam and Meghalaya. Every household offers to its guest indigenous pan (tambul) as a mark of warm hospitality.

TRANSPORT AND COMMUNICATION:

North East India is a land-locked region having no direct access to the sea. The Brahmaputra connects it with the Bay of Bengal only after traversing through Bangladesh over a distance of 766 km. By land
the region is remotely connected with the rest of the country. The Partition of the country in 1947 cast the region almost away from the grip of the mainland. A narrow corridor through the foot hills of the Himalayas remained to reestablish the connection. The famous rail link connecting Fakiragram with Siliguri was commissioned in 1950. It is even today the sole rail link between North East India and the rest of the country. During the monsoon, this link is often disrupted by recurring floods caused by many rivers and streams criss-crossing it.

The geography of the region is a major constraint making plans for the development of internal communication a difficult and expensive proposition. There are numerous hill ranges rising one after another and there are also many turbulent rivers and streams cutting across the valleys and changing courses pretty frequently. Expansion of the existing rail and road ways has, therefore become a slow and halting process.

The railways in the region cover no more than 2500 km. and are concentrated in the Plains districts. The state capitals of Nagaland, Manipur and Meghalaya are as yet unconnected by railways. Moreover, a major portion of the railways in the region belong to the metre gauge system. Recently, however, broad gauge traction has been undertaken and broad gauge rail lines have been brought upto New Bongaigaon. Further extension of the same upto Gauhati and beyond would greatly ease the transport bottleneck in the region.

Air services in the region have, of late been intensified. Many new air strips have come into existence. Most state capitals have also been brought under the air map. The number of overflights connecting Gauhati with Calcutta has been increased.
Inspite of these developments, whole regions like Arunachal Pradesh and Mizoram remain more or less isolated and unserved by either railways or air ways. Road transport is the only means of communication in these remote regions but the roads are few and fraught by several risks.

The Government of India as well as the governments of the various political units in the region must accept a joint responsibility for promoting the transport and communication requirements of the region on a basis of top priority. It is a condition precedent for the consideration of any scheme development of the region or its integration with the rest of the country.

Summing up; a few prominent features in the profile of North East India may be highlighted. The physiographic contours of the region present a delightful variety. The snow covered peaks of the Eastern Himalayas appear to be deckng the crest of the region with a silver plumage. The lesser Himalayan ranges beginning with the Patkai-Bum and the Naga Hills descend down in a chain like fashion to meet the Khasi, Jaintia and Garo Hills in the west and the Mizo Hills in the south. Covered with dense forests and thick vegetation, these hill ranges present a picture of greenery unparalleled in the world. The mighty Brahmaputra which traverses all along the length of the region is considered to be its main artery. The Brahmaputra valley is, indeed, the cradle of an age old culture and civilisation of the Plains people. The Meghalaya plateau is among the finest plateau regions in the world. It has also places of heaviest rainfall in the world.
The demographic contours of North East India are even more variegated and picturesque than its physiographic details. The region is, indeed a web of the most diverse kinds of races, religions, languages, dialects, cultures, customs, and systems of living. To integrate these various strands of people with one another and with the mainstream of Indian society is one of the most difficult and delicate tasks confronting Indian statesmanship.

North East India has a bountiful supply of natural resources. It has a variety of flora and fauna. Till recently, it is the only region in the country producing and refining crude oil. It supplies even today the bulk of the indigenous crude. It has vast reserves of natural gas, limestone and sillimanite. The hydel power potential of the region is again of the highest order. The abundance of natural resources, however, not quite matched by the pace of their exploitation. North East India is industrially one of the least advanced parts of the country.

Tea is a flourishing agro-based industry in the Assam Valley and Tripura. The region produces over 50 per cent of the total Indian output of tea. It earns about 50 crores of rupees in foreign exchange annually. This is the only silver lining in an otherwise dark picture of industrial development in the region.

The strategic importance of North East India needs hardly be over emphasised. Bounded by international borders on the north, east, south and south-west and having no more than a narrow corridor connecting it with the rest of the country, North East India is, indeed in a vulnerable position. The Indo-China war of 1962 has demonstrated beyond doubt
that the Himalayas are no longer an impregnable wall protecting the region from possible aggression on the northern border. The backwardness of the border areas together with the fact that some tribal folks living there have had strong racial, religious, linguistic and historical ties with their neighbours across the international boundaries makes the situation a matter of serious concern. Hence the integrated development of the region physically through expansion in the means of communication and emotionally through schemes of education and social welfare is to be undertaken with a sense of urgency. Eternal vigilance is the price of liberty.
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