

REGIONAL DEVELOPMENT OF THE NORTH
EASTERN REGION OF INDIA: EXPORT BASE
THEORY, GOVERNMENT POLICY
AND UNDERDEVELOPMENT



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CHAPTER I

INTRODUCTION

1.1. Statement of the Problem

The debate on development, its patterns processes and consequences has become a common theme of discussion among scholars, planners and politicians alike. This passionate issue ~~that~~ has captured the human mind since World War 2. Ironically few of its conceptual cobwebs have got removed by such attention and there is still no unanimity as to its being an objectively defined concept or a concept prone to subjective value orientations. Its social and spatial articulations have only added new dimensions and complexities to the already existing confusion. Some of the new areas are those relating to the historical process of development and underdevelopment and inequalities in the spread of the former.

Regions do not spread evenly on the plane of economic development. Some regions are far ahead, others lag behind. These differences in rates of economic development occur as a result of a multitude of factors ranging from the more basic ones : possession of differential endowments, potentialities and resources; to more complex factors : historico-politico influences, the level of cultural development of a society, the type of economic activity and the relations of production. It is difficult to isolate the exact mix of factors that often act as an accelerator to development. Yet glaring disparities among

regions is a global phenomena experienced to varying degrees by the North and South.¹ However, the differentiating element in this problem is that whereas in the developed countries while all the inhabitants are assured a standard quality of life and the problem is one of concern for the lagging regions just to 'catch-up' with the leading regions; in the developing countries the issue for the lagging regions is to be provided with basic levels of subsistence², in addition to the removal of regional imbalances and disparities in the levels of development achieved.

Regional imbalances are often compounded by a sort of 'preference' for development to align with the leading regions; a scenario in which the rich regions get richer and the poor regions get poorer as a result of the operation of what has been called a circular growth process or cumulative causation³, which as Myrdal explains, results due to the concentration of historical and natural processes of growth in the already developed regions making them richer and relegating the lagging regions to lower levels. This results due to the tendency of skilled labour, entrepreneurs, capital, banking etc. to migrate to developed regions in search of better opportunities thereby setting in motion a circular growth process of more investment, more income and more savings influencing more investments into the developed region. This causes a reverse or retarding process getting entrenched into the system in the backward regions.

When around the middle of the present century most countries achieved political independence, the attention of planners and academicians alike were turned to understanding, analysing and prescribing for the South, the most suitable and seemingly appropriate policies by which they could attain economic independence and thereby provide a more meaningful social, cultural and economic life for their burgeoning populations. It was found that a close relationship seemed to exist between poverty and the status of being an erstwhile colony, a relationship noticed not only among the newly independent countries of Afro-Asia but also among countries of Central and South America which became politically independent in the first quarter of the nineteenth century, a common factor which became instrumental in regarding these countries as 'under-developed'.⁴

One set of theorists that developed around this time was that of the Dependency School⁵, their philosophy being that the main reason for the present day Third World countries being in a state of underdevelopment was not because these countries were intrinsically 'under'-developed, but because of the role played by the developed countries of the occident in the recent past whereby these developing countries or pre-capitalist societies were incorporated into the world capitalist system. As a result the economies of these traditional societies got manipulated and their traditional basis of industrialisation, however, rudimentary, got crippled, their generally rich resource

base of natural resources/raw material were exploited and the surplus thus generated were used to develop the colonising countries. Thus development of one part of the world system was achieved at the cost of bringing about underdevelopment to these traditional economies and societies existing at pre-capitalistic stages of development.

The proponents of this approach held that although capitalism in the strict sense of the term had disappeared in the post IIInd World War scenario, the developed realm was, in fact, continuing to underdevelop the Third World by linkages with the global capitalist market and administering measured doses of developmental impulses for 'diffusion' to the latter; and in reality the development had "become the development of underdevelopment, where diffusion was the mechanism of dependency or imperialism".⁶

Despite rapid changes in the world economy, including high economic growth rates some Asian tigers have achieved, an analysis of underdevelopment is as valid a task today as before⁷, and the theory can like most perspectives and conceptualisations, be applied to specific situations. When India was incorporated into the colonial mode of production⁸ and into the world capitalist economy after the British secured their trade foothold in Bengal and consolidated it into empire, the colonial economy was subjugated and subordinated to British colonial interests and

India was transformed into a supplier of raw material and a huge market for British textiles.

Along with this, different regions of the sprawling Indian sub-continent, then including India, Pakistan and Bangladesh, came under colonial purview, simultaneously of course - for bringing such a large country with the massive geographical dimensions the sub-continent possessed at the time was no mean task, even to the enterprising methods of the British colonial government mechanism. Thus different region were slowly but surely absorbed into the capitalist system, naturally the spatially peripheral areas tended to be relatively late entrants into the colonization scheme.

The country's north eastern region (NER) was one such case, being peripherally located as it was at the north eastern extremity of India. Moreover inhabited as it was by ethnic groups at different levels of technology and encapsulated in social structures which had not been monetized at all or only extremely marginally so, along with being one of the least accessible areas of the country did not encourage the mercantile interests of the British. The NER then entered the capitalist ambit only in the post 1826 period, relatively late in terms of the rest of the country's colonial experience. Yet this region was strongly influenced by capitalist impulses in all its spheres - economic, social and cultural-and is today, at least culturally and socially one of the regions of India that is quite strongly

`westernized'; the languages, script, religion, dress and food habits of several of the hill states being an attestation to this.

The region is one of the least developed parts of the country and this developmental dwarf of a region has also proved to be one of most troubled parts of the country, attributable at least partly to the disparities in the levels of development between the region and its immediate externality : the rest of India.

At least a part of this developmental dwarfing can be explained by the skewed process it underwent during colonial times, wherein British interests in some extractive sectors of the economy resulted in concentration of investment and labour in some areas ; at the cost of disintegration of the existing socio-economic structures, which were traditional, not fully monetized and unable to sustain the pressure policies initiated by the colonist government. While the plantation sector was `developed', the agricultural peasants were forced out of their lands through processes of hiking up the land revenue and a policy of opening up retail outlets for opium sale. The entire economy was geared toward meeting the needs of the plantation sector : capital, labour, infrastructural investments all focussed on the tea garden economy from whcih the British sought to make profits. Thus an enclave of development was superimposed on the region's generally traditional, agricultural structure and the latter by

being starved of developmental and fiscal attention was further pauperised and occupied the lower rings of the developmental ladder. The roots of regional imbalances, polarized development amidst general backwardness are to be found in the brief century and a quarter of British politics in the NER.

As to how far the patterns of colonial development persists till today, if at all, is an issue that requires analysis. The colonial emphasis on specific export sector would have been altered by planning policies and most countries, particularly developing ones, consciously attempt to direct their economic paths along specific routes to development through a set of plans and policies. In this regard India has been among the fore runners. Special policies have been made for lagging behind problem area and the NER has had its share of the planning cake. Thus regional and historical development/underdevelopment must be seen in the light of post independence policies.

1.2. Objectives

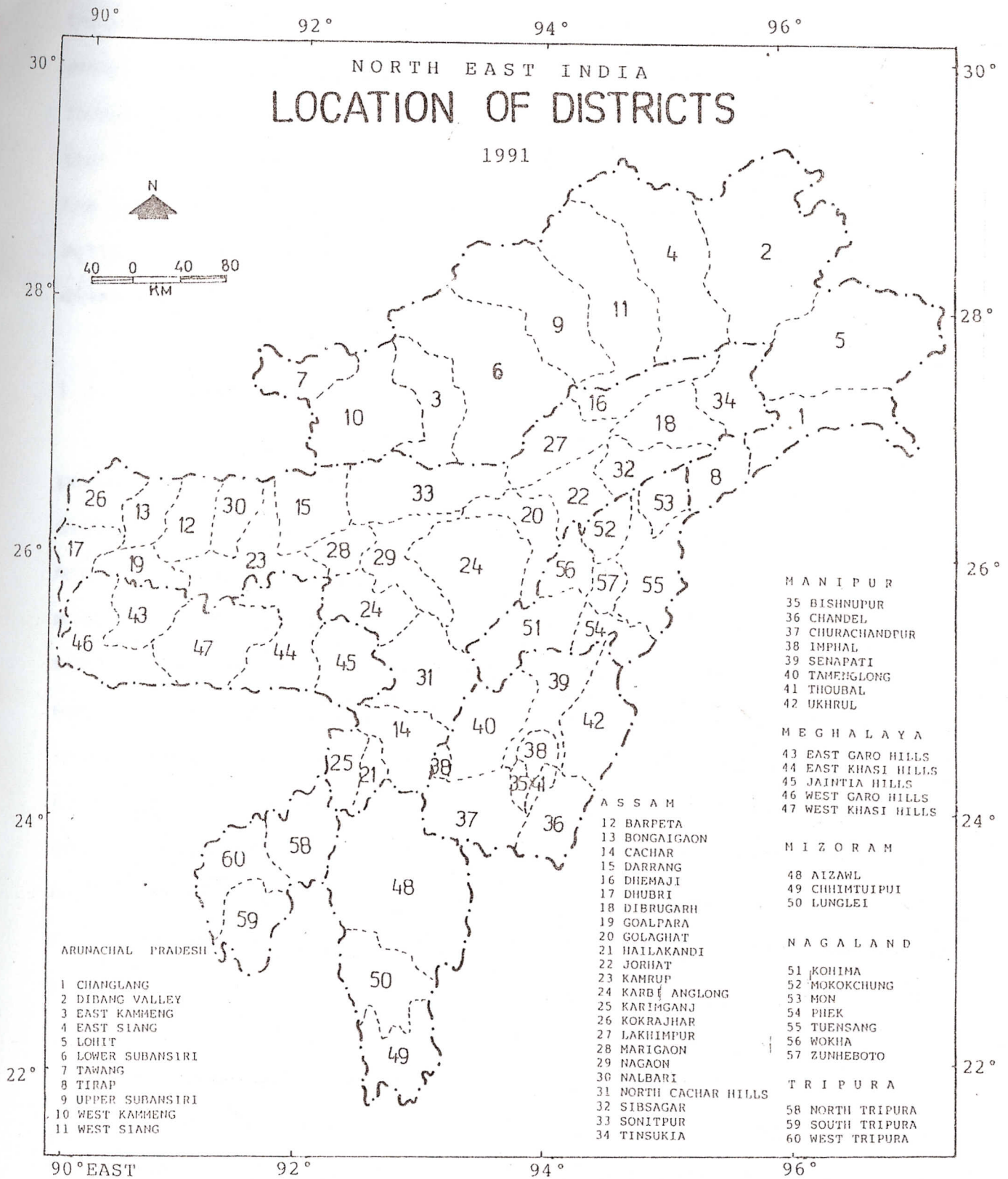
The objective of the present study are :

1. What are the nature of intra regional imbalances in the region?
2. How important is the colonial legacy in the region and does the legacy still persist in its classical form or has it been modified or replaced by some alternative structure ?

3. What is the nature of the current economic structure of the region ?
4. What is the role of the regional export sector in the overall economy ? Has this changed since its introduction during colonial times ?
5. What are the levels of sectoral development in the region ?
6. To what extent have the post independence policies of the central government influenced development/underdevelopment in the region ?

1.3. Personality of the Area

The North Eastern region (NER) occupies an area of 255,037 sq. km² and is located between 24° N to 28°18'N latitudes and 89°46'E to 97°4'E longitudes and consists of the seven states of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland and Tripura sometimes also called the 'seven sisters'. The 255,000 km² accounts for roughly 7.7 percent of the total landmass of India and supports a population of 31 million (1991 census) which amounts to 3.7 percent of the country's population. The NER shares international boundaries with China, Myanmar (Burma), Bangladesh and Bhutan and is tenuously linked with the Indian mainland by a narrow strip of land in North Bengal variously called the "Siliguri Neck" or the "Chicken's Neck", the width of which varies from 21 km to 33 km; a link not



map 1

infrequently disrupted by heavy rains and floods. The slender and tenuous connection by this narrow sliver of land attests to the often broken connection this region has, physically, with the Indian mainland and also to the poor transport connectivities, that such a narrow strip of land offers to the region. In fact the peripheral location and the transport bottleneck this region suffers from has been a serious hurdle to various pulses of development.

1.3.1. Geology

Mineral resources whether of coal, limestone or petroleum are a reflection of the geology of a region. Where differences in geology occur naturally variations in the types of mineral resource occurrences will result. The NER, a veritable microcosm of the larger entity of India, has like the latter three major geological areas - comparable to the Himalayas of the north, the Indo-Gangetic plains and the Deccan plateau respectively the NER possesses the Himalayan mountains of Arunachal Pradesh the Patkai Hills and Barail Range of Nagaland and Manipur and the Blue Mountains of Mizoram; the Brahmaputra - Barak valleys corresponding to the Gangetic and the Meghalaya - Karbi Anglong plateau as the eastward extension of the Deccan Plateau.

The region has a geologic history ranging from the Holocene to the Pre - Cambrian Protozoic Archeans dating back as far as 600 million years to 4500 million years in the earth's

geological history. while the Meghalaya - Karbi Plateau, considered as the eastward continuation of the Deccan Shield separated by the Rajmahal - Garo Gap⁹, consists of some of the oldest rocks in the world, the Arunachal Himalayas present a striking contrast to these, in terms of their young geologic age.

The mineral resources of the region - namely petroleum, coal and limestone exist in the Tertiary formations which date back approximately 65 million years in the Pliocene, Miocene, Oligocene and Eocene eras of this period.

Generally the Archean and pre-Cambrian outcrops exist in Assam and northern Meghalaya, while the Karbi plateau possesses upper and lower tertiary shelves and in its southern areas are the geosynclinal sediments while the Cachar Hills are covered by unclassified old and new alluvium of the quaternary period.¹⁰

One interesting feature of the region's geological history is that there lapsed a geologically considerable span of time in the formation of rocks, between the pre-Cambrian (600-4500 million years old) formations of the oldest rocks and those of the later cretaceous rocks (75 million years old); during which lapse of time the pre-Cambrian rocks were continuously (although intermittantly, if one encounters the phases of uplift, subsidence and denudation in between) denuded and acted upon by the agents of weathering and erosion.¹¹ This lapse of time proved

to be crucial to the geology of the region; it was during this period that the denudation of the pre-Cambrian rocks and the ensuing deposition in the seas could eventually lead to the formation of sedimentary strata which became folded and faulted through the processes of the region's orogeny to attain their present elevation in the form of the mountain ranges.¹²

As Taher¹³ has observed physiographically, tectonically and structurally the region can be divided into three major divisions :

- a) The rigid massif of the Meghalaya and Karbi plateaux
- b) The hills and mountains of tertiary origin, and
- c) The foreland between them; the Brahmaputra valley.¹⁴

The three structural units have different geological histories. While the Meghalaya plateau and Karbi plateau is not as stable a landmass it was considered, it is composed of various rock series ranging from the pre-Cambrian sedimentaries in the Shillong plateau area to the granitic and gneissic igneous rocks towards the southern base of the plateau, to the highly metamorphosed crystalline gneisses mixed with quartzite and conglomerates in the northern area. Volcanic and marine transgressions were not unknown, Professor Taher suggests, given the Gondwana deposits in Garo Hills and the Sylhet Traps in Khasi Hills. Submergence during the Cretaceous-Oligocene times resulted in Mesozoic and Tertiary sandstone, carbonaceous shale, coal, conglomerates and

limestone to get deposited. It is also probable that the region experienced severe tectonic pressures during the last phase of orogeny in the Late Tertiary period, judging by the steep scarp-like southern phase of the plateau which abruptly rises from the Sylhet plains of Bangladesh in the south, compared to the gradual step-like decreases in elevation towards the Brahmaputra valley in the north.

The Brahmaputra valley, possibly developed "on the foredeep between the Tethys Sea and the projection of the Deccan Plateau ... Geological evidences show that the foredeep was under the sea till the sub-recent period and contain deposits ranging(through)all the periods of the Tertiary and Quaternary Ages" (Taher, 1986: 3).

The tertiary deposits were superimposed on the layer of the foredeep, the bottom of which is formed by the relatively rigid Meghalaya-Karbi underground extension in the order of the Eocene (Jaintia Groups), the Oligocene (Barail Series), Miocene (Surma & Tipam Series) followed by the Pliocene (Dihang Series) deposits. Economically these deposits are significant, As Taher notes :

"Most of these tertiary sedimentary deposits consist of sandstone, shale, conglomerate and limestone. While the Jainia Group contains, at places limestone, the Barail (at Naharkatiya, Hoogrijar, etc.) and Tipams (at Digboi) bear large reserves of

petroleum, natural gas (in their anticlinal portions) and coal apart from shale and limestone".

Although it was once assumed that the oilfields of Assam were limited to Assam, recent survey have shown that oil fields are present in other parts of the region neighbouring the upper Assam area, as well. These resources exist in the younger tertiary formations possibly have extensive distribution¹⁵ and the chances of finding more deposits appear bright.

The third structural unit of the NER are the hills and mountains of Tertiary origin. The Tethys Sea from whose tectonic folding outgrew the Himalayas took a syntaxial bend with the rigid Meghalaya Karbi plateau to one side (south west) and the Yunan Shan plateau to the other (north east) acting as a conditioning agent and while the main latitudinal arc forms the Himalayas proper, the southern arc bent between the Meghalaya-Karbi and the Yunan Shan plateaus, forms the hills and ranges that comprises the Lohit-Tirap-Patkai-Manipur-Mizo-Arakan ranges. Generally the rocks comprising these hills and mountains are of late tertiary period, but in some places, some slightly younger rocks are found. Toward western Nagaland, western Manipur, western Mizoram and Tripura younger Miocene and Pliocene rocks exist. From the mineralogical point of view some petroleum and natural gas deposits are available in these younger Tertiary formations, as also coal and limestone deposits.

While of the three structural units of the region, the foredeep or the Brahmaputra plains are undoubtedly the most important, given the present level of geologic understanding and assessment of resources. Aligned along the Brahmaputra valley, longitudinal stretches of young tertiary formations from the Lohit and Tirap districts of Arunachal Pradesh southwards down to Tripura are also important from the point of coal, limestone, oil and natural gas deposits.

Recent studies carried out by the GSI and the Atomic Minerals Department (AMD) have shown the existence of significant deposits of rare minerals - Uranium ore in the southern areas of Meghalaya stretching from Domiasiat in West Khasi Hills, where the seams are the thickest, till Jaintia Hills in the east, where the seam gets thinned out. Deposits are to the tune of 9.2 million tons of ore which is quite significant and exploitation is to be started shortly. Other occurrences are stated to occur in Western Garo Hills and parts of Arunachal Pradesh as well, but these are not fully explored and their economic exploitation yet to be assessed.

Nonetheless the region has substantial mineral deposits as a result of its geologic history. While petroleum and natural gas have been exploited fairly comprehensively, the prospects for better and further utilisation and setting up of coal and limestone based industries exist, though they are yet to be well tapped.

Apart from these existences of mineral deposits which occur, so to say, in fairly abundant proportion, there exist less important occurrences of a host of other minerals.

1.3.2. Physiography

The study of the physiography or the landforms are a sort of precursor to most geographical studies, as in the classical determinist trend, the physiography provides the base and the basis upon which human activities are charted out. The impress of the physical landscape is no doubt of considerable significance, yet the fact that man and technology can shrug of the shackles set by the physical environment, is also valid. As to how far the environment can set such limits on human activities and now easily man can 'revoke' such limits depends on the level of socio-cultural technology available with man.

Generally the NER with its physical landscape being a mixture of hills and mountains, plateaus and river valleys along with a peripheral location in relation to the mainland, has been an area where the level of technology available is on the low side and where man has struggled to assert himself. Given the size of the region there exist variations in the man-landscape interaction equation from the smooth canvas of the Brahmaputra valley to the mountaneous terrain of the Himalayan Arunachal Pradesh. Naturally there developed variations within the region in terms of human/anthropogenic activities, and an understanding



of the physiography of the region and the impulses it generated is necessary.

Physiographically the region can be divided into smaller physical units; Das divided it into¹⁶

- a) The Assam Himalayas; now the Arunachal Himalayas.
- b) The Brahmaputra valley.
- c) The Shillong Plateau including the Karbi Plateau.
- d) The Barak Valley.
- e) The South Eastern Hilly Region.

On similar lines, Das, Singh and Sharma¹⁷ have divided the region, for convenience into the following

- a) Eastern Himalaya
- b) Purvanchal
- c) Assam valley, and
- d) Meghalaya - Mikir Region.

For the present study in which an idea of the physical landscape in relation to generating and /or facilitating human activity any method can be followed and Taher's scheme¹⁸ is found convenient. Taher considers the region's physiography in terms of plateaus, plains and hills & mountains.

The Plains : Nearly 27 percent of the total area of the region are accounted for by plain, level land. Of these the largest is the Brahmaputra plain which accounts for about 82 percent of the total plains area (56,480 km²), followed by the Barak valley which covers about 10 percent of this type of landscape (6962 km²) along with the Manipur Basin with 2.7 percent (1843 km²) and Tripura's piedmont plain at 5 percent (3500 km²) of the plains area.

Out of the four constituent units, naturally the first - the Brahmaputra valleys has been the most important. In Subba Rao's terminology¹⁹ the Brahmaputra valley can be termed as a region of relative attraction, located as it is on the fringe of the Indian subcontinent. Yet regionally, it can be considered as a region of attraction with its obvious benefits of a level agricultural floodplain annually replenished by the water of the Brahmaputra along with its attribute of navigational 'malleability'. Likewise the central location of the valley in the region aided its predominance over the rest of the NER economically, socially and politically Unlike the other regions this meso-region has a history of human settlement dating back at least as early as 2000 B.C. and a heritage as ancient as the epic age when the area was referred to as Pragjyotisha or Kamrupa, with Pragjyotishpur (present day Guwahati) as its capital. The region finds several references to, in the Mahabharata, the Puranas and in the Tantras.²⁰ Between 2000 B.C. and 1000 A.D. the peopling process into the region took place, and one stream - the

major one - entered the region originating "from the banks of the Hwang Ho and the Yang-tse-Kiang in China"²¹ "who along with others migrated from northern Burma formed the bulk of the population of Assam"²² and another of much less consequence was that of the Aryan population, which crossed the Indo-Gangetic, Bihar and West Bengal and entered Assam in small numbers, but resulted in the fusion of Aryan and Mongoloid cultures, the latter process completing itself by about 1000 AD²³. From the Brahmaputra valley succeeding waves spread out to the neighbouring hills and mountains of the NER.

Stretching from Sadiya in the east to Dhubri in the west the Brahmaputra valley is an almost flat stretch of plain, built up by the aggradational deposits of the river, with upto 1500 m thickness of alluvium; the levelness of the plain indicated by a fall of about 12 cm per km and the general level ranging from 130 m to 30 m.²⁴ The elongated valley has a length of some 660 km and an average width of about 70 km, with fairly regular margins to its north, and less regular margin to its south; the slope of the plain being towards south-west and west²⁵

One interesting feature of the valley "is the presence of a good number of isolated hillocks or monodnocks on both the banks of the river right from Tezpur and Mikir hills to as far south as Dhubri, detached from the Meghalaya Plateau by the degradational work of the river."²⁶ As H.P. Das notes, although the valley is of depositional origin, some features such as the

southern margin along the hills & plateaus at places, are of erosional origin as well, due to the erosional work of the Dhansiri and Kopili which extended their courses on both sides of the Mikir and Rengma hills²⁷

Taher identifies a bhabar zone, a Terai zone, a 'built up' zone and the flood plain from north to south of the valley²⁸.

While both banks of the valley (North Bank and South Bank) have essential similarities, there exist some marked differences as well; generally the southern part being less wide and uneven and the tributaries that drain the main river being larger²⁹ the river is highly braided, due to its low gradient, and as a result there a number of riverine islands along the entire length of its 660 km course, including Majuli (929 km²) the largest riverine in the world. In addition to these, associated with the meandering course of the river are a good number of ox-bow lakes and fresh water lakes, locally called 'beels'. The mighty Brahmaputra, which drains the plain is both a godsend and a ravage to the region, for it provides a lush fertile agricultural valley to the inhabitants yet annually taunts them with extensive floods. The valley located in an earthquake prone zone has twice seen the mighty river change its course in 1897 and 1950.

Dwarfed in size compared with the Brahmaputra valley, but important to Cachar nonetheless, is the Barak valley, a part of the Surma valley of Bangladesh. This valley, built largely of

detrital material is dotted with a number of lakes and marshy tracts³⁰, much like its larger counterpart, the Brahmaputra valley ; and the origin of the riverine lakes is also, due to the near level Character of the Barak plain Covering an area of 6962 km² the sluggish main river is joined by tributaries like the Jiri Diksha, Chiri Modhura, Dalu, Jatinga and Larang from North Cachar Hills in the north, as well as Sonai, Katakhal-Dhaleswari, Singia and Langai from Mizoram to its south³¹. The plain is both aggradational and degradational in character and with its terraces and hillocks, resembling the Brahmaputra valley in physical character and in affording opportunity for human activity.

The Tripura plain, like the Barak, is again a piedmont plain and represents the margin of the Bangladesh plain; is drained largely by the Gomti, where a small hydro electric plant exists and due to insufficient slope of the 3500 km² plain, has its share of riverine lakes and Marshes. It contains "both erosional and depositional features, with worn down hillocks, piedmont terraces and thick fluvial deposits covering the structural synclines"³²

The Manipur plain is the smallest of the four plains of the region. Attributed to lacustrine origin, as Taher explains, it could have been formed due to the headward erosion of a tributary of the Chindwin during its incision into the valley through the Shughu Gap in Indo-Burma, draining out the excess

water from the basin, and leaving behind at the deep end, the Logtak lake. The elevation is less than the 900 metre contour that bounds it and this low oval valley has been of seminal importance to the kingdom of Manipur. Like the larger plains, it has a number of local depressions, marshes and lakes, particularly in the south central part³³

The Hills and Mountains : Mountainous terrain, everywhere, provides more barriers than avenues to spatial interaction, inhibiting as it does, agriculture, industry, transport and communication. In the NER roughly 60 percent of the area being under hills and mountains, spatial interaction had never reached its zenith and these areas remained outside the orbit of receiving impulses from mainland India and even from the Brahmaputra valley such impulses were infrequent and changes that resulted had to be either generated from within, or took significantly long in being transmitted from external sources. Trade links within such areas no doubt existed, as also with the international borders (Bhutan, Burma) but then these were always more tenuous in character and slender in volume. Such areas were the areas of isolation, although with intra-regional variations in terms of interaction, stretching from the Tirap and Changlang through Nagaland, Manipur down to Mizoram and Tripura.

These hills and mountains cover an area of some 150,000 km² and can be divided into the Arunachal Himalayas in the north; and the eastern hills and mountains consisting of the Dibang-

Lohit-Patkai-Naga-manipur-Mizo axis to the east ranging NE-SW with the Dihang-Dibang gorge being a convenient divisor.

The former is again divided into a Lesser Himalayan zone varying between 300-500 metres and lying just adjacent to the Brahmaputra valley and to its latitudinal and directional north, the Greater Himalaya, varying in elevation between 5200 metres to 7200 metres. The former, a foothills zone or the Sivaliks area, is the more habitable of the two and, given the heavy rainfall it receives, affords a thick, at times impenetrable vegetation. Bands of soft rock, resulting in varying erosion, mean that topographic changes are rapid and the region is generally 'a confused labyrinth of hills and ranges intervened by deep gorges'³⁴, with small and marginal valleys scattered in a disorderly manner as if broadcast by some force. It is in such valleys that man is able to eke out a subsistence. Where relatively larger flatlands exist, as in the tablelands of Bomdila and Ziro the traditional shifting agriculture is abandoned for age-old traditional wisdom honed practices of terraced wet rice cultivation. Such enclaves are replaced by the peri-glacial and inhospitable highlands to the north where, with increase in altitude the vegetation cover peters out, and the snow capped peaks vie for space with patches of alpine vegetation. In elevation of 6500 metres or so on an average, agriculture is unknown, and food-dropping by the Indian Army is the mode of sustenance. In the mysterious past, several difficult passes that cut holes in the Himalaya - the Tulung La, Dom La and Se La among

others - allowed Arunachal to have contact with Tibet and via the Chumbi valley with Bhutan, where trade and winds of change could intermittently blow in.

The eastern hills and mountains, aligned NE-SW, are, altitudinally, a poor cousin to the Arunachal Himalayas, ranging from 1000 to 3000 metres in general and occasionally higher, with the elevation falling off to 150-900 metres in Mizoram and Tripura to the south. Northwards, the elevation is the highest at Dapha Bum in Lohit area (4579m.) gradually decreasing to sub-4000 m. at Saramati (3826) in Nagaland, where the Patkai hills are their best; to Japavo (3015 m) in Nagaland again in the Barail Range. This decreasing trend continues into Manipur, where the hills enclose the Manipur Central plain in which is embedded the Manipur Basin which is possibly of lacustrine origin.³⁵ Apart from the intermontane basin and a few flat topped valleys like the Khoupum, Manipur is criss-crossed by the Patkai and tributary ranges which trend NE-SW and vary in altitude from 750 metres to about 3000 metres, with the highest part of Manipur lying in the north east at Mount Tenipu (2994 metres), Khayanghung (283 m), Leikot (2832 m), Siroi (2568 m) among others.

The criss-crossed 'range and valley' pattern of Manipur extends southward into Mizoram and Tripura, spilling south as far as the Chittagong Hill Tracts (CHT) of Bangladesh". The hills are made of shale and slate and hence their tops and slopes are notoriously deficient in water. The ranges in the east are higher

with an average height of 1400 m and as one goes westward they lose altitude to an average height of 500 m" as Taher³⁶ sums up the physiography of Mizoram. Clearly the elevation of this tract is not too high so as to impede or constrict human activity in itself, yet the trend of the hill ranges is important in this respect. The general North-South alignment of the hills with narrow and deep valleys sandwiched in between has hampered east-west road construction, which remains aligned along the ridges and 70 percent of the roads trend north-south³⁷, with the east-west trending roads difficult to construct and maintain, in the face of an altitude well below the highest peak of the Blue Mountain's 2157 metres. The Tripura hills continue with a decreasing elevation trend noticed in Manipur and Mizoram, with low hills averaging 400-700 meters, separated by wide flat valleys conducive to paddy cultivation and hosting, in terms of the region's average, a dense blanket of population, which Mizoram or Manipur would be hard-pressed to emulate. The hills and mountains which dominate the region - in crude deterministic terms - seen to strongly condition the distribution of man and apart from Tripura where the local relief is scattered with small hills and generally permits settled agriculture - man is not free to settle and start his activities as and where he wishes, but where the hills and mountains permit.

The Plateaus : The Meghalaya-Karbi Plateau is a tableland spread in an east-west elongated tract covering an area of 32,821 km². Like the Deccan shield of which this plateau is a part, it is a

rigid tableland composed of pre-Cambrian Archean gneisses interspersed with Lower Gondwana rocks, Sylhet Traps and Cretaceous-Tertiary sedimentaries and the Shillong series. In fact it is an east ward extension of the Indian Peninsular Plateau separated by the Malda gap (or the Garo-Rajmahal gap) as a result of denudational and tectonic forces³⁸ and has been witness to a series of uplift, submergence and peneplanation and consequent "phases of erosion, sedimentation, diastrophism, intrusion, movements of land and sea and emissions".³⁹ The Meghalaya segment of the plateau, with a maximum height of 1965 m at the Shillong Peak, rises sharply from the south off the Sylhet plains and gently slopes off to the Brahmaputra valley to the north in a step like manner and offer ample scope for hydro-electric power generation, only a small segment of which has been tapped till date. Westwards to the Garo Hills the Shillong plateau decreases to a maximum of 1412 m at Nokrek and at the western and eastern margins are 'dissected and denuded and merge with the Brahmaputra plain through gentle gradients and isolated hills and hillocks'.⁴⁰ Eastwards the Karbi Plateau, itself separated to an extent from the Meghalaya area by the headward erosion of the Kopili and its tributaries is composed of small stretches of land above 1300 metres set against a general elevation varying between 100 to 900 metres. Two peaks rising above the generally denuded hills are the Chenghchison Peak (1359 m) and the Dambukso Peak (1361 m) north of Diphu. Generally the Karbi Plateau assumes a rounded shape with fingers of lowlands intrrupting the landscape. Such lowlands composed of river terraces, are conducive to

valuable forests including teak, sal, cane and bamboos. However, in the face of paucity of an effective means of transport and communication the rich forests of Karbi Anglong have remained untapped. In fact, "The most important drawback which stands in the way of satisfactory exploitation of the forest wealth, ... is poor or rather no transportation links with the rich forest areas".⁴¹

The whole chunk of the Meghalaya-Karbi plateau is covered with thick vegetation and the observation of Das made a good two and half decades earlier, does not hold quite as true today where forest resources are being tapped at an alarming rate, at least in Meghalaya if not the Karbi plateau as well.

1.3.3. Location

The situational location, as distinct from the site of a place which refers to the physical character of the location⁴², refers to the location of a place relative to other places and is an important factor in affording natural advantages or vice versa for the growth and development of a city, region or country in terms of economic, technological or political aspects, among others. The NER situated at the north eastern periphery of the country has not had the best of locations and this factor has played a negative and retarding effect on the society, economy and polity of the region. Its peripheral location made it relatively inaccessible from the mainstream of the Indian subcontinent; physically and economically, the region stagnated-

as it were - trade routes, transport lines and technological developments were developments were seemingly stunted and there was a time lag between innovations reaching this region and the Indian mainland in the historical context. Even in the contemporary age of technological revolutions the location of the region has acted as a constricting force to innovations from without. Periphera-lisation in strictly spatial terms has been one factor among others, leading to peripheralisation in non-spatial aspects. The influence of situational location in this region can be considered as follows :

Economically, distances has been a major deterrant. Production costs are that much higher given that transport costs are an additional additive. Transport costs are higher in procurement of all items whether for domestic or commercial use and raw material costs can often be prohibitive. On the other hand whatever little markateble surplus that exists in the region has to bear additional transportation costs before it can be marketed outside the region, a situation compounded by the fact that demand within the region is pretty low. In such a scenario the poor transport infrastructural set up of the region in which long delays, high transshipment costs (not only from road to rail but also from meter gauge to broad gauge) punctuated by hazardous uncertainty for entrepreneurs exist, the role of location has hardly been conducive to business, commercial and economic activity. Little wonder than location, manifest in transport cost, is often given the dubious distinction of stunting the

industrial potential of the region, so much so that new industrial activity is almost a non-starter considering that institutional investment and other factors are very tardy in the region, transport & communication infrastructure are inadequate, road development and building materials like steel and cement are 30-40 % costlier than elsewhere in the country.⁴³

Culturally this region has had ⁴⁾ fewer contacts with mainland India compared to other peripheral corners of India. The region being a relatively late entrant into the colonial scene also evolved and nurtured a slightly 'different' but nonetheless very much Indian culture; in which Christianity, animism, Buddhism and Hinduism all existed. The peopling process of the region which received several streams of immigrants from south east Asia led to a largely mongoloid stock. Thus ethnic, historical, cultural and colonial imprints were unique to this isolated area largely brought on by its situational location. Cultural affinities with India doubtlessly existed but these were overshadowed by greater differences from without and the superficial situational affinities within the region. Superficial in the sense that intra-regional differences in ethnic, tribal, religious and linguistic terms were very pronounced.

Politically the tenuous location made the region one of immense strategic importance with China, Burma and Bangladesh (leave aside friendly entities like Bhutan) breathing down India's NER's borders. India's political complacency was given a

rude shock when China ambled across the border in 1962 and shook up things, giving a fillip to developmental activities in Arunachal Pradesh⁴⁴, when Nehru, then Prime Minister made a plogant 'farewell-Assam' sort of speech on All India Radio⁴⁵. In some instances, investment in the region suffered due to the politically strategic nature of the region's location.

The region's external accessibility apart, it suffers from acute internal accessibility deficiencies. Although all four modes of transport exist in the region, i.e., railways, roadways, inland waterways and airways, the level of connectivities are well below desirable levels. Barring Assam whose plains, combined with colonial motives, led to development of various transport modes reasonably early, although not reasonably judiciously⁴⁶, the remaining states have poor connectivities resulting due to a combination of locational and topographical factors.

13.4 Climate

The region's climate is a mixture of (a) cold humid monsoonal climate in hills above 2000 metres (b) wet sub-tropical in southern Arunachal, Western Nagaland, Manipur and Mizoram and (c) humid mesothermal monsoonal in the valley and plateau areas.⁴⁷ Almost the entire region receives copious rainfall, particularly the Cherrapunji-Mawsynram-Pynursla belt of the southern part of Meghalaya, which borders Bangladesh with a classic scarp face and with its funnel-like topography traps the rain laden winds. This heavy rain, coupled with the hills has

clad the region, at least the hills, with a luxuriant vegetation and a rich biodiversity. Although the climate has been both a boon to the vegetation which has been much maligned, forests being exploited recklessly, the fact that climate has a profound influence on the life, economy and cultural fabric of the region is undeniable.

The region is ideally suited for the cultivation of tea and supports wide range of tropical forests. The tea plant which thrives best under temperature conditions varying between 24°C to 30°C throughout the growing period along with high humidity, dew and morning fog which encourages the growth of leaves, and rainfall well distributed year round between 150 cm to 250 cms., finds near ideal conditions in the Brahmaputra valley with its heavy annual rainfall and temperature varying between 12°C to 31°C, with frost free conditions throughout the year, topped with 70 to 90 days of winter fog. Of the two types of cultivated tea - Assam tea and China tea - the former, a dwarf bush with leathery leaves is well suited to the tropical climate of Assam. Initially the tea plant was restricted to the Brahmaputra and Barak valleys of Assam, but present attempts at tea cultivation are proving tenable in Arunachal Pradesh, Tripura, Nagaland and Meghalaya. The region is densely forested and considering the variations in elevation, soil and climate local variations in vegetation are numerous. They can be broadly divided as follows⁴⁸: tropical, deciduous, grasslands, subtropical mixed, temperate and alpine forests. Of these the tropical forests which include wet ever-

green and semi evergreen forests, dry and moist deciduous forests are the single most extensive category covering large stretches of Assam, Meghalaya Tripura, Mizoram and Manipur. Such forests are dappled with patches of wet bamboo brakes, cane brakes, riparian forests and swamps and pioneer euphorbiaceous serubs.⁴⁹ Hollock, Hollong, Nahor, Mekai, Sopa, Kadom are common trees.

and con:

The deciduous forests are spread over parts of Assam, Meghalaya, Tripura and Mizoram. In Meghalaya such forests, in low altitudes of the Khasi and Garo Hills support sal (*Shorea Robusta*) forests⁵⁰, while in the Goalpara, Kamrup, Dhubri, Kokrajhar, Nagaon districts sal species occur, although in limited extent. Other species include Simul, Sidha, Gameri (*Gmelina Arborea*), *Parviflora Makri-Sal*.

functi:

forest: Grassland or savanah vegetation type are commonly found in the lowlands of the Brahmaputra valley which are subject to annual flooding and in area of the Meghalaya Plateau. The original semi-evergreen and deciduous forests have been degraded into grasslands, which represent secondary forests.⁵¹ Vegetation includes grasses, marsh forests and swampy vegetation along with species like *Cayera arborea*, *wrightia tomomtosa*, *Zizyphus*, *Randia* and 'rata' (*Imperata arundinacea*).⁵²

Subtropical mixed forests in low elevations (upto 1500 metres) of areas of Arunachal Pradesh and temperate forests in parts of the Meghalaya-Karbi plateau and Naga-Mizo Hills and

alpine forests in higher elevations of Purvanchal complete the picture. In the temperate belt species like pine, fir, oak, birch, chestnut, magnolia, maple, cherry, fig, moly and cherry trees occur variously while in the alpine forests restricted to higher elevations in the Arunachal Himalayas between 2700 m to 4,300 m, shrubs, jumpers, pine, silver, fir, dwarf rhododendrous and conifers are found.⁵³

While the climate of the region with its moderate temperature and general rainfall has endowed the region with luxuriant vegetation, the human factor in the guise of colonial policy compelled with the peculiar mode of agricultural production - 'jhumming' - have together resulted in degradation of this resource. Colonial pursuits saw to it that extraction functions were most important, and post colonial patterns of forest exploitation have not nurtured forests which remain below the National Forest policy standards in hills and plains areas. Nonetheless, barring aside the use (or misuse) man has made of forests, that nature has been bountiful in providing conducive conditionalities to vegetative growth in the region is undeniable.

*Brief Chapter and
Summaries focusing on intra regional
(various related) to dev. potential?
A Map for each aspect could have been
made conclusive.*

1.4. Hypotheses

The hypotheses can be outlined as follows :

1. Enclaves of development are superimposed on a general background of limited development/relative backwardness conforming to the colonial legacy.
2. That sharp intra-regional differentiations exists along the lines of colonial policy induced disparities and that these have not be substantially altered by post-colonial/central government policies.
3. The changing strategic importance of the region has added a new dimension to the process of induced development. Areas less favourably endowed from environmental and resource points of view are likely to exhibit such spuriously enhanced developmental levels.
4. Specialisation in the production of export oriented primary products is largely due to the conditions imposed by the national and international markets and the conditionalities imposed by colonial rulers that continue to exist, though in a modified form.
5. In the absence of regional product specialization the export oriented production process will have marginalised the economic multipliers effect and the residentiary effect.

6. Central government resource allocations continue to reinforce pre independence patterns of development.

1.5. Data Base and Methodology

The study is based on secondary and to a lesser extent, on primary sources. Data from the CMIE, NEC, Tea Board, Census of India, The Directorates of Economics and Statistics of the concerned states, Plan Documents and other GOI publications such as the Bureau of Public Enterprises, Fertilizer Statistics, Handbook of Industrial Statistics and Annual Survey of Industries were collected. Primary data regarding outflow of timber from the region were collected from the office of the Forest Ranger Officer, Srirampur, Assam.

The methods used in the study can be grouped as :

i) Cartographic Methods

Maps which are an integral tool of geographical and spatial analysis have been used. The choropleth method has been preferred to show levels of intra regional development. The use of bar diagrams for representing gas flaring, income tax allocations to the region, classification of workers etc. have been made.

ii) Statistical Method

Principal component analysis was carried out to determine levels of development in the region.

1.6. Chapter Scheme

The study is divided into the following Chapters :

Chapter One deals with the statement of the problem, that of development and underdevelopment, it outlines the objectives and hypothesis, in the context of the personality of the study area and briefly sketches the main data sources and the methodology used, followed by the chapter scheme.

Since no research is carried out in a vacuum, but in the context of the existing paradigm it is necessary to consider the existing literature on development and underdevelopment and the dependency perspectives. This is dealt with in the first part of Chapter Two and these conceptual and theoretical moorings are considered in context of studies in India, and more specifically in relation to the north eastern region of India. Mere facts are essentially meaningless with a proper methodology and Chapter Three outlines the methodology worked upon to meaningfully interpret the data base and the limitation to the latter. The evolution of the regional economic structures in the colonial period which has an imprint on the current make up of the economy are dealt with in the Fourth and Fifth Chapters. The region has significant intra regional variations in levels of development and these along with their causes forms the focus of the Sixth Chapter. The unit of analysis is the districts as existing in 1991 are considered.

The region has an important regional export sector comprising of tea, petroleum and the forest sectors. The role of this export base on the regional economy in the light of the export base theory in actuating resultant residentiary effects are analysed in Chapter Seven. Since the country embarked on a path of planned development significant improvements, sectoral and regional, have resulted. The impact of the central government policies in terms of financial allocations, subsidies and social plans for the NER is the focus of Chapter Eight. Finally a summary of the conclusions is presented in the Ninth Chapter.

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CHAPTER IX

SUMMARY OF CONCLUSIONS

I.

1. Development has become an increasingly debated issue and its spatial and social articulations have only compounded its conceptual cobwebs. Regional development and underdevelopment occurs for a variety of reasons. According to the one school of thought, that of the dependency theorists, the prime reason for the Third World being underdeveloped, lies in their incorporation into the world capitalist system, the consequent exploitation allowing development of the colonising powers. The NER, like the rest of the country was one such area, that experienced a short but powerful impress of colonial interest-led development.

2. The NER is, a veritable microcosm of the larger Indian entity. The area is a mixture of hills, plateaus and valleys that play host to a multiplicity of tribes, cultures and peoples. In many respects the region is rich in resources but poor in realised potentials.

II.

1. A literature survey is a survey of the field in which the researcher intends to focus upon. It is intended to serve a number of purposes : to take a view of the existing theories in that field or sub-field, to assimilate and integrate the discourses in that area, to be a sort of reconnaissance in which the validity of existing theories are weighed in the light of the new problem and finally it enables the researcher to develop a conceptual mooring.
2. Underdevelopment is not an original condition, nor is it a stage in development. Rather, as the dependency school holds, it was due to the machinations of capitalism that relatively developed nations were able to develop at the cost of the less developed, feudalistic or precapitalist countries using imperialism backed by superior military strength. Development and underdevelopment are thus related aspects of a single world economy in which the countries at differing levels of development interact on an unequal basis. Some scholars, like Gunder Frank and Hechter hold that such structures of dependency exist not only at international levels but also at sub-national levels.
3. While literature on dependency, internal colonialism and export base are numerous, limited literature in context of the NER is available.

III.

1. Development is a complex phenomena with multidimensional facets that requires analysis by a reasonably large number of relevant indicators. To ascertain levels of development in the region twenty one indicators at the district level were chosen and grouped in two stages. First, four sectors were identified : resource base, infrastructure, agriculture and industry, accordingly the indicators were grouped. At the second level the indicators were grouped into three sector depending on their reflecting potentials for development, the process of development and the result of development.
2. Among the various methods available for amalgamating the values of indicators the composite index based on principal component analysis, which assigns higher weightages for higher correlations was preferred. Accordingly levels of sectoral and overall development and those relating to the potential, process and result of development were identified.
3. State level data for the economy were analysed at two points of time, a first reference point in the 1970s and a second during the early 1990s. Agriculture, occupational structure, infrastructure and the industrial base, their nature and changes over the two time periods were considered. Regional level data for three regional export sectors of the economy,

viz. petroleum & natural gas, tea and forests, were analysed in the context of the export base theory.

IV.

1. Prior to the coming of the British in 1826 the regional economy was barely monetized, dominated by barter and the small volume of trade that existed was not an integrated one between the hills and the plains, due to a combination of several factors : limited accessibility offered by the difficult terrain; the poor linkages that existed; low populations base; and a non-existent industrial sector necessitating marginal spatial interaction.
2. British interests caused dramatic changes in the regional economy and nothing typified this impact as much as the genesis, evolution and growth of tea industry with which the regional economy became inseparably and symbiotically linked. A virtual revolution in the advent of transport - particularly railways - changes in the demographic structure, changes in the land revenue system and in the pattern of trade resulted. The colonial administration was geared to the needs of the tea industry, and import of labour, raising the land revenue rate catastrophically and thereby pauperising the peasantry, aligning transport lines to suit tea gardens were some ways in which tea 'governed' the regional economy.

3. British mercantile interests pumped in money and monetized the economy; although these initial investments were more than amply compensated for, by the throw-away prices of land and revenue concessions in land the plantations enjoyed and only a small part of the total investments were supplied by Britain's home savings. A flow of profits from tea estates in Assam to the mother country resulted.

4. While the impact of the British mercantile interests permeated into the very fabric of Assamese economy, it had a marginal impact on the peripheral hill areas where the impacts of improved transportation and diversified trade were hardly felt. In fact colonial interests in the hills were purely strategic and administrative.

5. The regional economy centered around the extractive primary products led export sector was distinguished by a dualism between the plantation sector in pockets of upper Assam and a traditional agrarian base in the rest of the region.

V.

1. A structure is a pattern or an observable uniformity in terms of which action takes place and the structure of a system deals with the interrelationships among its different components. When considering the regional economic structure of the NER the components of agriculture, industry,

occupational structure and infrastructure - both physical and financial - require consideration.

2. During the 1970s when the states of the region were more or less the administration entities as recognised today, when the states and the NER are compared in terms of agricultural parameters with the all India norm, the wide disparities are apparent. In spite of the region's economic backbone being agriculture, it lags far behind all India aggregates due to a combination of socio-cultural and physical constraints.
3. At a broad level the hills and plains can be differentiated in terms of area under HYV crops, wherein Assam accounts for most of the acreage, though such distinctions are not possible in fertiliser consumption, where the entire region is way below the national norm. Likewise proportion of irrigated area is barely 2.3 percent of the country's total, much of which lies in Assam. Given such circumstances, the yields of rice - the most important crop - remained in the 70s, much below all India averages.
4. The industrial sector during the same time, much like the agriculture sector, both in the SSI sector and the large sector, contributed very little to the national industrial scenario. The region accounted for 1.9 percent of working units, 0.1 percent value output, 1.4 percent of value added and 1.6 percent of employment of the national total in the

SSI sector, while in the large sector, Assam and to a lesser extent Tripura dominated regionally with tea processing units prevailing. The predominance of tea was a colonial legacy.

5. The occupational structure, with almost four fifths in the primary sector, was like the larger developing Indian entity. Yet unlike the national scenario which had almost 10 percent in the secondary activities, the NER had only 4 percent in this important area. Only Manipur has some semblance of a secondary sector employment, due to a well developed HHI sector, while Arunachal Pradesh, Mizoram and Nagaland were non-entities in this sector.
6. The importance of infrastructural facilities can hardly be emphasized in a developing or dependent economy. However, in terms of physical infrastructure - roads, railways, power and financial infrastructure the region fared extremely poorly. This was inspite of massive potential in the hydro power sector.
7. During the early 1990s as well, the region's agricultural sector was the most important one accounting for 64 percent of the workforce. At the state level advances in agriculture were noticable-improvements in the acreage under HYVs, increase in sown area and improvements in fertilizer consumption. However, three trends were unmistakable : Assam

dominated the regional scenario, the region's contribution to the national total was still quite nominal and the rates of increase over the '70s were slower compared to the all India advances. The good performance of states like Manipur and Tripura in some respects - rice productivity for one - notwithstanding, the region's agricultural base remained a poor cousin to its national counterpart.

8. In the industrial sector, the region's contribution to the national total continued to be below 2 percent, both in the large and small sector. This trend exhibited no shift from the 1970s position.

9. In terms of occupational structure the 1970s picture continued with the bulk of the population in the primary sector, a small secondary sector with 4 percent of the workforce compared to 10 percent at all India level, and nearly one quarter in the tertiary sector. Only Manipur was slightly well placed in the secondary sector.

10. Earlier studies on per capita income in the region have shown increasing trends of poverty between 1957-1974 and 1980-81 to 1989-90. Present trends show 6 of the region's states faring marginally poorer than the all India average. While Assam showed a negative differential of Rs. 425 to Rs. 583, at the other end Arunachal Pradesh had a positive differential of Rs. 64 to Rs. 268 in the last decade.

11. The infrastructural base continued to be poor. Roads, railways, power consumption and financial infrastructure remained far below national standards, although in specific cases Assam and Manipur had made significant advances.
12. All in all the regional economy showed little changes in the past two decades. In several ways it represented a stunted development with characteristics of an underdeveloped economy possessing retarded industrialization, geared toward 'light engineering activity' and a supplier of raw materials and primary produce.

VI.

1. In ascertaining levels of development, a sectoral approach in determining levels of development in terms of the resource, agricultural, infrastructural and industrial base of the region is adopted. The overall development shows the combined scores of these four areas.
2. In the regional resource levels a broad distinction between the hills and plains is possible with the latter better planed. This is party due to the emphasis of the indicators no human resources, and less so on physical ones due to data constrains.
3. Apart from a handful of districts the bulk fall in the lower levels of agricultural development. The relatively better

position of state capital possessing districts highlights the importance of institutional factors in agro-development. The role of physical factors remains unclear, playing a constricting role here and no such role elsewhere. Important tea growing districts seem to have low agricultural levels.

4. Among infrastructural levels, state capital possessing districts are better placed, five of these falling in the two highest levels. Population concentration and administrative importance appear to be important factors that influence infrastructural levels. Garo and Jaintia Hills, several districts of Arunachal Pradesh and 4 districts of Manipur exhibit low levels.
5. A mixed scenario in industrial levels exists. No apparent distinction between the hills and plains is possible. However, only 7 districts are well developed and the remaining in the low levels. This seems to point to an internal uniformity of generally low levels, and considering the gap in industrial levels vis-a-vis the rest of the country, a uniformity in backwardness seems valid.
6. In the overall levels of development, state capital possessing districts, more than industrial or other factors appear to influence development, pointing to an induced sort of development, led by administrative considerations more than anything else. Two areas of high levels districts

concentrated around Dibrugarh and Cachar exist, of which the former represents the colonial legacy. Generally low levels persist, while the `drag' of physical constraints appears strong, the `push' of industrial/developmental impetuses are weak.

7. Districts are considered in terms of the results of development, indicative of the on-going process of development and as reflecting potential for development. The spatial spread of districts that have been able to benefit from the developmental process are limited to areas of administrative importance, while peripheral hill districts, as distinct from more centrally located hills, appear to lag behind. In terms of the process of development, the districts of Arunachal exhibit the maximum thrust attributable to the low base level from which these districts have progressed. In gauging the potentials for development apart from 5 districts, which are either state capitals or colonially important areas both reflective of induced development, the remaining districts show low levels of potential.

VII.

1. The NER since colonial times developed an export sector that was sustained by external demand. Tea, petroleum, and forest products were the main regional exports and these three

sectors have been analysed in the export base theory's framework.

2. In the petroleum sector Assam was the sole producer between 1901 to 1961 and until Bombay High started production in 1976, it accounted for over 50 percent of India's oil production. Presently Assam produces only 15 percent of the country's production and possesses along with Nagaland over 19 percent of India's proven and recoverable crude oil reserves, with the former accounting for about 47 percent of the country's onshore reserves.
3. Considering the importance of Assam, and of late Nagaland, Tripura and Arunachal Pradesh as well, in the petroleum sector the development of refining capacity and associated industries particularly petrochemicals has remained rather stunted. The capacity of the 3 refineries in Assam are only 5.2 percent of the country's total and the 3 refineries together have a lower refining capacity than the Barauni refinery, the location of which was a political decision that went against the interest of the regional economy.
4. The region possesses almost a fifth of the country's proven and recoverable natural gas reserves and produces about 13 percent of India's natural gas. However, current methods of utilization are quite wasteful with almost a third being flared compared to 11 percent flaring in Gujarat. In value

terms the excess flaring over Gujarat's ratio from 1970-71 to 1992-93 amounts to a loss of Rs. 2000 per 1000 cubic meter or about Rs. 1876 crores. At a base price of Rs. 2500 per 1000 cu. metres this would be about Rs. 2345 crores worth of flaring.

5. Natural gas flaring could have been reduced by transporting the gas to other areas of the country, setting up gas based plants for power generation or using it as a feedstock for a variety of petrochemical industries. These could have had significant multiplier effects or a "residential effect" on the regional economy.
6. The tea industry of Assam produces about Rs. 2100 crores worth of tea, or over 396 million kilos from its 848 estates spread over 203,363 hectares which is about 55 percent of the country's total and accounts for 65 percent of India's tea exports.
7. Untill the GTAC was opened in 1970 Assam's tea was marketed outside the region. Thereafter along with the GTAC's growth as the largest CTC tea auction centre in the world there developed warehousing, marketing, financial and brokerage services, export finance and transport services. However, the industry did not bring much succor to the region and the sons of the soil. The Tea Board headquarters and head offices of private companies were located outside the region

due to historical factors. While the former governs funding of projects and grants, the location of tea companies elsewhere implied that the benefits of taxes paid by the private companies and TDS did not accrue to Assam. While Assam earns Rs. 35 crores annually as revenue, West Bengal where the head offices are located, earns Rs. 87 crores annually.

8. Head offices of tea companies located elsewhere has not helped the cause of middle and junior level managerial employment to the sons of the soil. The industry earned handsome profits, Rs. 1386 crores in 1989, but reinvestes little in the state and in many ways fits into a colonial mode of extraction of resources.
9. As an industrial group tea is one of the more profitable ones and tea companies make large profits that are repatriated outside the NER. Beyond the initial investments few growth effects have been set off by this industry apart from the low wages paid to wage labourers and a handful of clerical and middle level managerial staff.
10. The NER with its monsoonal climate and hilly terrain supports dense forests and a luxuriant vegetation cover. Under British rule these forests were exploited during the expansion of the railway network in the country. Currently

forest products are being sent out of the region by roads, railways and waterways.

11. Regarding export by roads, it is estimated that 264,928 tonnes of timber and timber products is legally exported from the region. This is based on export of 4355 tonnes over a 6 day period in 1987-88. However, on the basis of primary data sources, 7134 cu. m. or 251,978 cft. was exported over a 7 day period in 1995. Projected annually, at a rate of Rs. 250 per cft. Rs. 327 crores worth of timber is exported, or Rs. 262 crores at Rs. 200 per cft., from the Srirampur gate alone. Including Boxirhat the exit would be worth anything between Rs. 400 to Rs. 450 crores.
12. Trade in teakwood by river and rail shows that the NER was a net exporter of 59,930 quintals and accounted for over 85 percent of the national internal trade in teak during 1993-94. Assam alone accounted for almost 76 percent of the country's internal teak trade, followed by Nagaland and Tripura. Further a major portion, 82 percent, of the NER's teak exports found its way to the Gujarat ports, possibly for foreign markets.
13. Similar trends existed for regional export of other timber with the NER providing almost 73 percent of the country's internal trade in such timber. Assam dominated, followed by

Nagaland, Tripura and Meghalaya. New Delhi, Gujarat ports and Haryana were important destinations.

14. Considering roads, railways and river borne trade of timber an export of timber worth between Rs. 856 crores (at Rs. 200 per cft.) to Rs. 1069 crores (at Rs. 250 per cft.) is taking place annually.
15. Petroleum and forest products are being exported from the NER without the residentiary effects of the export base theory occurring and the profits accruing from an extractive utilisation of these three resources have not had any significant impact on the economy. Partly this is explained by the control of these sectors in the hands of the government, which has inhibited the free play of market forces that the export base theory presupposes. Nonetheless other factors such as lack of political will at the central and well as regional level, lack of entrepreneurial spirit among the local population, overall low level of local demand coupled with the low level of industrial base have also combined to inhibit any residentiary effects.
16. In the petroleum industry, with much of the crude refined outside the region scope for ancilliary development, as in Gujarat, was inhibited. Utilisation of natural gas along less wasteful lines could have had partially, if not substantially, greater impacts on the regional economy. Tea

as a industry has limited linkage effects, but even these did not take place. Instead, a siphoning out of profits resulted. In toto, a failure of the export base route to development, more than its applicability in context of the region, was the result.

VIII.

1. The attempt to bridge regional disparities within the vast expanse of India has been a long cherished goal. Backward areas have been given special considerations. The impact of such policies on the NER is considered in terms of resource transfer through plans, transfer of revenue resources, special schemes, industrial dispersal policy and role of financial institutions.
2. Under the first three Plans, the region did not get much attention. Until this time no objective criteria allocating funds existed. Since the Fourth Plan, barring Assam, the other states have been favourably allocated resources under the SCS status. Considering the low base level of developmental activities and the prolonged neglect of these states, allocations to the NER under SCS status have not been enough to enable the region to catch up with the rest of the country.
3. Finance Commission devolutions to the region as a whole have not been really progressive; the income tax share were lower

than the region's population share of the country until the Eight Commission although as far as Union excise duties were concerned devolutions were quite favourable.

4. In the past 20 years the region received 7 percent out of the all India disbursements under the CIS scheme, of which Assam garnered the maximum. Under the TS scheme the region received 50 percent of the national disbursements. However the larger units apportioned much of the funds and against Assam benefitted at the cost of the other states.
5. Industrial dispersal schemes have been ineffective for the region. LOI and IL to No-industry and backward areas show that industrial enterprises do not prefer the NER. This trend continued in the post liberalisation era and a tendency of investment to 'avoid' the region has accentuated. The distribution assets of CPSU in the region is also not encouraging.
6. Financial institutions both non-bank and banking, have not had much positive effect in the region. The trend of investments of the former have been particularly discouraging, while in case of the latter, the low level of industrial development in the region among other factors has kept the C.D. ratio depressed in 6 of the 7 states of the region, with only Manipur faring well.

7. In toto, while central government policies have tried to enhance development in the region, the fact remains that these have not borne much fruit. The region continues to lag behind national levels and remains underdeveloped though not in the true Frankian sense.