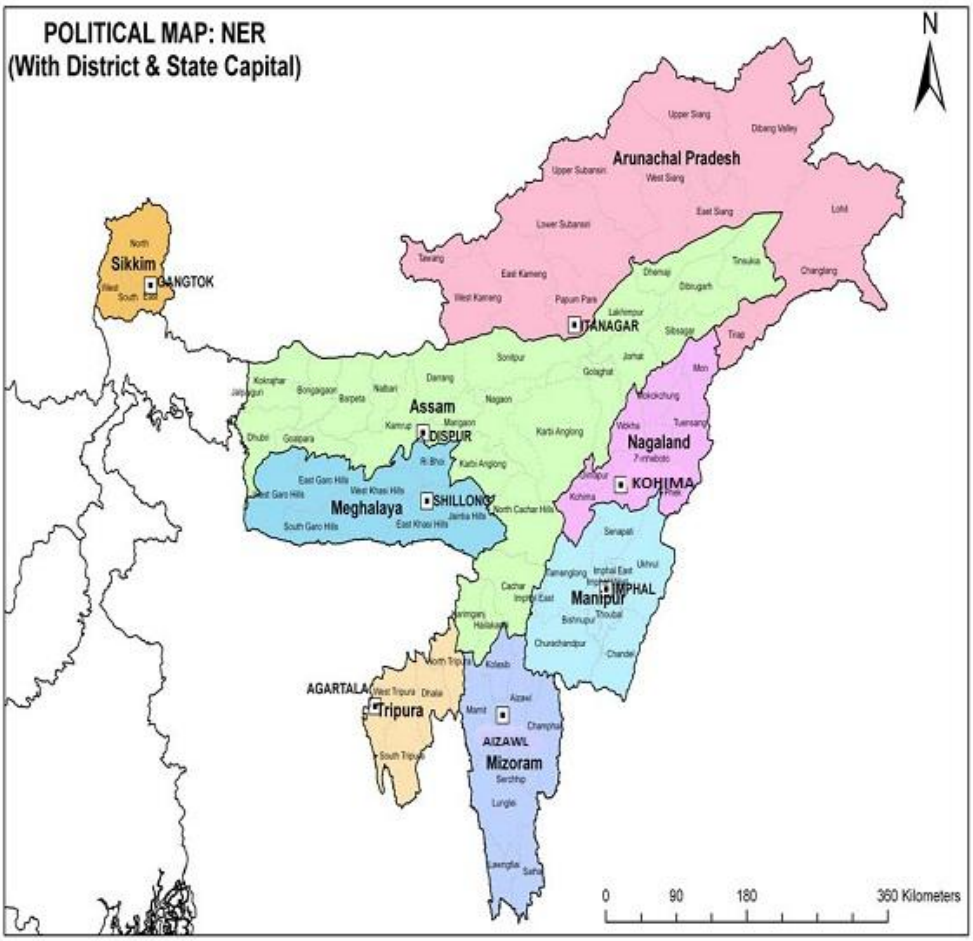
Chapter 3

Growth and Structural change in North Eastern Region of India

3.1 North Eastern Region of India: A brief history

"India's North Eastern Region is a 'rainbow country …extraordinarily diverse and colourful, mysterious when seen through parted clouds". (NER Vision 2020, 2008:1).

South Asia meets South East Asia in India's North East. North Eastern India has been a gateway of commerce and culture that linked India to East and South East Asia. The North Eastern Region (NER) comprises of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. It constitutes a population of 3.78 percent of the total population of the country and covers an area of 2,62,189 sq. km. constituting 7.98 percent of the country's total geographical area. The hill states of the region viz. Arunachal Pradesh, Meghalaya, Mizoram and Nagaland are mostly inhabited by tribal people. The region has over 200 of the 635 tribal groups in the country speaking a variety of Tibeto –Burman languages and dialects with a strong tradition of social and cultural-identity. The region has 5484 km of international border with China and Bhutan in the north, Myanmar in the east and Bangladesh in the south and west and 98 percent of its border is international (NER Vision 2020). According to Goswami (2013: 69) "the entire North-East India had a long tradition of trade relations with eastern Himalayan sub-region comprising Bhutan, Tibet, China and Myanmar (Burma). History has recorded a number of trade routes between North-East India and its neighbouring countries. As many as 27 trade routes (passes) including the famous Tawang route which passes via Tawang and Tsona Dzong have been identified between Arunachal Pradesh and Tibet.



Source: Google image, MapsofIndia

Chellaney (2015: xx) wrote "when we look at the sub region made up of East and Northeast India, Bhutan, Nepal, Bangladesh, Myanmar, Thailand, Laos, Cambodia and Vietnam- we must remember that this was historically one economy unit: an integrated region in terms of trade, culture and people to people exchanges. But new political borders since the 1940s have changed ground realities." Yet the region became land locked in post independence era due to geo politics as the region came to be surrounded by hostile neighbours and traditional trade was converted overnight into smuggling across the border. Except for Nepal and Bhutan, connectivity with other neighbouring countries became highly unstable. Since independence the trade & commerce of the region has been through the narrow 27km wide Siliguri corridor. The annexation of Tibet

by China cut off Tibet's link with this region which also affected the economies and cultures of the entire Himalayan region (Chellaney 2015; xxi).

Table 3.1: International Borders in NER (length in kms)

State	Bangladesh	Bhutan	China	Myanmar	Nepal	Total
Arunachal		217	1126	520		1863
Assam	263	267				530
Manipur				398		398
Meghalaya	443					443
Mizoram	318			510		828
Nagaland				215		215
Sikkim		32	220		99	351
Tripura	856					856
Total	1880	516	1346	1643	99	5484

Source: Department of Border Management, Ministry of Home Affairs

Rich in natural resources and a treasure house of floral and faunal bio–diversity, the region was a gateway to East and Southeast Asia before independence. The biodiversity of the North Eastern Region is of great significance for citizens' livelihoods. Its biodiversity has been highlighted as one of its assets and as an underlying resource for development. The immense biodiversity of the region has made it a priority area for investment by the leading conservation agencies of the world. According to World bank report (2007: xv) "Northeast India probably supports the highest bird diversity in the East, with about 836 of the 1,200 bird species known from the Indian subcontinent. The richness of the region's avifauna largely reflects the diversity of habitats associated with a wide altitudinal range. Assam hosts the entire known world population of the pygmy hog, 75 percent of the world population of the Indian rhinoceros and wild water buffalo, and a sizable population of Asian elephants and tigers."

According to Poffenberger et al (2005) of the 1300 species of orchids documented worldwide, 700 are found in North Eastern Region of India with 550 species of orchids in Arunachal Pradesh alone. In Manipur 430 species of plants are used for medicinal purposes and of the 1000 species of ferns found in India over 50 percent are located in the Northeast India.

World bank (2007: xiii) has rightly pointed out that "Most accounts and discussions about the Northeast point out its diversity in people, plants, and animal life. The region is rich in natural resources, especially water and forests, and there is a feeling that it could potentially be one of the wealthiest regions of India." Yet today this region has come to be considered a backward region having been bypassed by the process of development. The vibrancy, so conspicuous in the past, is no longer there. History, geography and politics have cast the northeastern region as a far away land, remote, isolated and surrounded by intimidating and hostile environment.

The NER Vision 2020 document has contextualized the situation in the region as follows :

"The trauma of partition in 1947 not only took the region backwards by at least a quarter of a century, but also placed hurdles on future economic progress. It isolated the region, sealed both land and sea routes for commerce and trade, and severed access to traditional markets and gateway to the East and South East Asia- the Chittagong port in East Bengal (now Bangladesh)." (NER Vision 2020,1)

The following quote from NER Vision 2020 documents succinctly sums up the development experience of the region in the last six decades: "At Independence, the North Eastern Region was among the most prosperous regions of India. Sixty years on, the Region as a whole, and the States that comprise it, are lagging far behind the rest of the country in most important parameters of growth." (NER Vision 2020, 2008; iii)

All states in the region used to be classified as special category states till 2014-15. The National Development Council had considered factors such as those places which have hilly and difficult terrain, larger share of the area with low population density and/or places with bigger share of tribal population to be classified as special category states. It also includes places with strategic location along borders, backwardness in economic infrastructural and also non-viable nature of state finances. These characteristics are found in NER of India.

Economic development is the undisputed objective of any society. However the scope of the concept has expanded as people come to understand more and more dimensions of

what makes their lives complete. Development is not just about income, it also means removal of poverty and under nutrition, increase in life expectancy, access to sanitation, clean drinking water and health services, reduction in infant mortality, increased access to knowledge and schooling and literacy. In short it is a multi dimensional concept. The objectivity of development should be more concerned with enhancing the quality of lives people live and the justice for freedoms to enjoy. Development is a process of expanding the real freedoms that people enjoy. It should be accompanied by removal of poverty, of poor economic opportunities and systematic social deprivation. The problem of poverty is such that it robs the people the freedom to satisfy their hunger or to achieve sufficient nutrition, or to obtain facilities and remedies for treatable illnesses or to have the opportunity to be adequately clothed or sheltered or to enjoy clean water or sanitary facilities. Lack of freedom associated with poverty is closely associated with the lack of public facilities, and social care such as the absence of epidemiological programmes or of organised arrangements for health care or educational facilities or of effective institutions for the maintenance of local peace and order. People aspire for a society free of discrimination with tolerable levels of equality; where the sick receive proper medical care and people do not have to sleep on the footpaths. A minimal requirement of life for a developed nation is that the physical quality of life be high and be so uniformly, rather than being restricted to an affluent minority.

In the next section the development and the problems faced by North eastern region are discussed. Though the region is an abode of floura, fauna and various natural resources, development still excludes the region. The political topography and changes there in has taken toll on the region. The reflection is in the form of development and various indicators depicting it. Section 3.2 presents the developmental challenges faced by north eastern region. The views of various committees in identifying backwardness and actual challenges faced are discussed. Section 3.3 presents the economic growth in the north east region and the structural changes there in followed by summary and conclusion.

3.2 North Eastern Region: Development and Problems faced

Development is measured through indicators like literacy rate, infant mortality rates, poverty ratio, real per capita NSDP, per capita electricity consumption and road density. It can also be measured by aggregated measure such as human development index where three dimensions of development- standard of living, knowledge and health constitute the measure. Table 3.2 presents a comparative growth profile of the eight states. In terms of literacy except for Arunachal Pradesh all NER states have a literacy rate higher than the national average. Mizoram's literacy rate is the third highest in India after Kerala and Lakshadweep. Most of the NER states have infant mortality rate, an important indicator of access to health care facilities lower than the national average. Manipur has one of the lowest infant mortality rates in India. Except for Arunachal Pradesh, Assam and Manipur NER states have a poverty ratio lower than the national average. It ranges between 36.89% in Manipur and 8.19% in Sikkim. The real per capita Net State Domestic Product (NSDP) has lagged behind significantly behind the rest of India implying the standard of living to be low. At Rs 29119 in 2013-14, it was almost half of all-state average of Rs 44875 in 2004-5 prices. Only Sikkim, Nagaland and Tripura had per capita income higher than the national average. According to the NER Vision 2020 document at the time of independence per capita income in the undivided state of Assam was higher than the national average by 4 percent. The region showed vast developmental potential, even during the period where India was under the British colonial rule the economic performance of the region was much better than the rest of the country. The slow progress of NER's economy is reflected in the low growth in income. As the growth rate of per capita GSDP lagged behind the rest of the country the gap narrowed, and by the late 1960s per capita income in the region had fallen behind national average. Not surprisingly post 1960's the difference in per capita incomes between the country and the region has steadily diverged.

In addition to lower per capita income from the rest of the country there are other development indicators NER is lagging behind. Such as access to basic services in adequately. The infrastructural development indicators such as road length per 1000 sq.km and power consumption level in the region. It is only in Sikkim that per capita

power consumption is higher than all India average. Arunachal Pradesh has the lowest road density despite being the largest state in the region.

Table 3.2: Socio-economic indicators of NER States

State	Literacy rate (2011 census)	Infant mortality rate (per 1000) 2013	Poverty Ratio (2011-12) Tendulkar report	Per Capita NSDP (Rs) 2013-14 at 2004-5 prices	Per Capita Electricity Consumption (Kwh) 2010-11	Road length (km/1000 sq km of geographical area (2008))
Arunachal Pradesh	66.95	32	34.67	36019	582.08	196.96
Assam	73.18	54	31.98	23392	222.86	2936.51
Manipur	79.85	10	36.89	24042	242.30	739.11
Meghalaya	75.48	47	11.87	37154	654.08	438.57
Mizoram	91.58	35	20.40	41094	461.69	292.11
Nagaland	80.11	18	18.88	49963	264.81	1345.32
Sikkim	82.20	22	8.19	83527	880.11	263.95
Tripura	87.75	26	14.05	47261	221.80	3026.23
All India	74.04	40	21.92	44875	818.75	965.73

Source: Compiled by the author from various sources

Table 3.3 depicts the demographic structure of NER states as per 2011 Census. Sex ratio represents one of the indicators of the status of women in the society. The table shows that only three states have a sub-national sex ratio. North Eastern states are not known for widespread discrimination against females as in many other parts of India, however there is mild discrimination in these areas too (Das, 2013). The Khasis in Meghalaya follow a matriarchal system where females inherit the property of parents. Urban population enjoy facilities not accessible to rural population. NER is dominant by a rural regions and can be called as rural economy; almost 81 percent of population live in rural area, having an average population density of 175 people per sq. km. of area. The distribution of population is also uneven across the states. Assam and Tripura are top two densely populated states, sharing almost 75% of total NER population and have a population density close to the national average. Nagaland has the distinction of being the only state having a decline in population during 2001-2011.

Table 3.3 : Demographic structure of NER States (2011 Census)

States	Population (Total)	Decennial growth rate (2001-2011) (%)	Sex Ratio (females per 1000 males)	Urban share in percent	Popn Density (per sq. km)
Arunachal Pradesh	1383727	26.03	938	22.67	17
Assam	31205576	17.07	958	14.08	397
Manipur	2855794	24.5	992	29.21	122
Meghalaya	2966889	27.95	989	20.08	132
Mizoram	1097206	23.48	976	51.51	52
Nagaland	1978502	-0.58	931	28.97	119
Sikkim	610577	12.89	890	24.97	86
Tripura	3673917	14.84	960	26.18	350
NER total	45772188	17.40	960	18.39	175
All India	121,08,54,977	17.70	943	31.14	368

Source: Government of India, Census 2011

NER Vision 2020 sums up the proximate causal factors behind the stagnation of the region as follows: "Poor infrastructure and governance is combined with low productivity and market access. Inability of governments to control floods and river bank erosion causes unmitigated damage to properties and lives of millions of people every year in the region. Frustration and dissatisfaction from seclusion, backwardness, remoteness and problems of governance have provided fertile ground for breeding armed insurgencies. There is overwhelming dependence for resources on the Central Government, public investment in the region has sub-optimal productivity due to weak of forward and backward linkages."

3.2.1 Wealth of the region

The region contributes substantially to oil and gas production in India. It holds promise because the area is largely unexplored. The history of oil and gas exploration in India dates back to the 19th century in Assam. Exploration of hydrocarbon in India began in Assam in 1866. The first well that struck oil in Makum area near Margherita during 1867 was drilled by McKillop, Stewart & Co. The Assam Railway & Trading Co. Ltd drilled the first commercial well Digboi-1 with an initial production of 200 gallons per day in 1890. (Hydrocarbon Vision 2030 for Northeast India 2015:55). In 2014-15 NER

produced 4.54 Million Metric tonnes of crude oil and 4.13 Billion Cubic Metres of gas which constituted 12.1 % and 12.2 % of total production. (Hydro carbon Vision 2030 for Northeast India: 51)

The following table 3.4 provides details of prognosticated hydrocarbon resources of the region

Table 3.4: Hydrocarbon resources in North East Region of India

Basin	Offshore (MMT)	Onland (MMT)	Total (MMT) (projected)	% of total	% explored
Assam-Arakan fold belt	0	1860	1860	7	10
Upper Assam shelf	0	3180	3180	11	90
Total NER	0	5040	5040	18	-
India	18815	9270	28085	100	-

- indicates data not available

Source: Directorate General of Hydrocarbons (2015) Hydrocarbon Vision 2030 for Northeast India

The upstream oil sector is commonly known as the exploration and production sector which includes the search for potential underground or under water crude oil and natural gas fields, drilling of exploratory oils, drilling and operating the wells to recover and bring the crude oil and /or raw gas to the surface. Midstream sector consists of the transportation (by pipeline, rail, barge, oil tanker or truck), storage, and wholesale marketing of crude or refined petroleum products. The downstream sector refers to the refining of crude oil, processing and purification of raw natural gas, as well as the marketing and distribution of products derived from crude oil and natural gas. Products such as gasoline or petrol, kerosene, jet fuel, diesel oil, heating oil, fuel oil, lubricants, waxes, asphalt, natural gas and liquefied petroleum gas (LPG) etc belong to the downstream sector. The key entities operating in this segment in this region are as follows: Digboi refinery, Guwahati refinery, Bongaigaon refinery, Numaligarh Refinery Ltd, Brahmaputra Cracker and Polymer Ltd, Brahmaputra Valley fertilizer Corporation Ltd, Assam Gas Company Ltd and Tripura Natural Gas Company Ltd. Gas based power plants have been set up by NEEPCO, Assam State Electricity Board, Tripura state

Electricity company Ltd and ONGC Tripura Power Corporation. (Hydrocarbon Vision of NER 2015: 54-55).

A world bank report (2007: xv) commenting on the abundance of water resources in the region writes "One-third of India's runoff flows from the Northeast through the Brahmaputra and Barak rivers. These rivers constitute India's National Waterway 2 (NW-2) and their basins contain seasonally flooded wetlands that sustain a broad range of biodiversity. There is an estimated 60,000 megawatts of economically viable hydropower potential, of which only about 2004 megawatts is developed or under construction. It is also clear that the abundant surface water resource imposes severe distress and costs on the region through frequent flooding and erosive processes and that this needs to be managed to improve economic development. The region also has a substantial unutilized groundwater resource."

The basin of the Brahmaputra River is among the most flood prone in the world, followed closely by that of the Barak River. Floods affect an annual average of 0.8 million hectares of land, but in some unfortunate years they affect more than 4 million hectares of Assam's total area of 7.54 million hectares. According to Dash (2015:15) "India is South Asia's most water stressed country; yet it has the North Eastern Region where there is abundant water. Brahmaputra is underutilized. Despite having 34 percent of India's fresh water wealth and 37 percent of the country's hydropower, the Brahmaputra remains largely untouched." This large water resource and hydropower potential could contribute significantly to the national water and power requirements of the country.

According to a World Bank Study (2007:57) the Brahmaputra-Barak river system drains a large catchment area, has the largest surface water potential, and 30 percent of the hydropower potential (or 41.6 percent of the principal hydro potential) of the country. The number of identified hydropower generation sites in the Brahmaputra basin is 140 (out of the 845 sites in the country; for comparison, 226 sites are on the Ganges and 180 on the Indus).

Based on the studies for re-assessment of hydro-electric potential of the country, completed by Central Electricity Authority in 1987, identified hydropower potential in

the country is 1,48,701 MW. This includes 63257 MW of potential in North Eastern (NE) Region including Sikkim. The identified potential in NE Region constitutes about 42.54% of the total identified hydro power potential in the country. Presently about 3.17% of the identified potential (above 25 MW) has already been developed in N.E. region, while another about 8.66 % is under various stages of development.

Table 3.5: Status of Hydro Electric capacity (installed capacity above 25 MW), 2016

NER states	**Identified capacity as per reassessment study(MW)**		**Capacity developed**		**Capacity under construction**		**Capacity yet to be developed**	
	Total (MW)	Above 25 MW	MW	%	MW	%	MW	%
Arunachal Pradesh	50328	50064	405	0.81	2854	5.70	46805	93.49
Assam	680	65	375	57.69	0.00	0.00	275	42.31
Manipur	1784	1761	105	5.96	0.00	0.00	1656	94.04
Meghalaya	2394	2298	282	12.27	40	1.74	1976	85.99
Mizoram	2196	2131	0.00	0.00	60.00	2.82	2071	97.18
Nagaland	1574	1452	75	5,17	0.00	0.00	1377	94.83
Sikkim	4286	4248	765	18.01	2526	59.46	957	22.53
Tripura	15	0	0.00	0.00	0.00	0.00	0.00	0.00
subtotal	63257	62019	2007	3.17	5480	8.66	55117	87.13
All India	148701	145320	37997.8	26.15	12422	8.55	94900.2	65.30

Source: Review of Performance of Hydro Power Stations 2015-16; Central Electricity Authority, Govt. of India, Ministry of Power

Table 3.6 on the next page shows the various hydroelectric projects with installed capacity above 25 MW that have been in operation in North eastern region.

Table 3.6: Hydro Electric Projects in Operation in North Eastern Region (Installed Capacity above 25 MW)

Sl.No.	Name of the Project	Installed Capacity (MW)	Year of Commissioning
	Assam		
1	Kopili (NEEPCO)	200 + 25	1988-2003
2	Khandong (NEEPCO)	25 +25	1984
3	Lower Borpani (KarbiLangpi)	100	2007
	Total (Assam)	**375**	
	Manipur		
4	Loktak (NHPC)	**105**	1983
	Meghalaya		
5	Umiam Umtru IV	60	1992
6	Kyrdamkulai	60	1997
7	Umiam St.- I	36	1965
8	Myntdu St.-I	126	2012-13
	Total (Meghalaya)	**282**	
	Arunachal Pradesh		
9	Ranganadi Stage-I (NEEPCO)	405	2002
	Total (Ar. Pradesh)	**405**	
	Nagaland		
10	Doyang	75	2000

	(NEEPCO)		
	Total (Nagaland)	**75**	
	Total (NER)	**1242**	

Source: Hydro Sub regional plan for the Northeast (Oct.2014)

Most of the north eastern states have a high proportion of forest coverage, all higher than the all India average. Proportion of area under forests in the region in 2017 was 65.34%. Though forest and tree cover of the country increased by 8021 sq km during 2016-17 area under forests in the region declined by 630 sq.km. Five states in the region namely Mizoram, Nagaland, Arunachal Pradesh, Tripura and Meghalaya show decline in forest cover. The main reasons behind the decline in forest cover are practice of shifting cultivation, rotational felling of trees, destruction of forest lands for developmental activities, submergence of forest cover, agriculture expansion and also natural disasters. The region has 34.53% of area under bamboo cultivation in India (Forest Survey of India 2017). On the one hand it is indicative of environmental friendliness of the growth process in the region and on the other hand it points to the cost disability for any project taken up in the region.

Table 3.7: Forest cover of NER states

NER states	**Forest coverage in percentage**
Sikkim	82.31
Manipur	78.01
Arunachal Pradesh	61.39
Tripura	60.02
Nagaland	55.62
Meghalaya	42.34
Assam	34.21
Mizoram	26.76
All India	23.26

Source: Forest Survey of India, 2017

The degradation of the forests in the region would have been larger, had there been no directive from the Honb'le Supreme Court in 1996. In December 1996, the Supreme Court of India made a landmark ruling in a civil writ petition (TN Godavarman vs. the

Union of India and others) with regard to cutting down trees. The SC verdict included an interim order prohibiting logging without government permission. The order, regarded as a move to safeguard the forests and its resources from rampant exploitation, included curbing any forest related commercial activity – logging, timber mills and timber transportation. While it banned unregulated logging, it stipulated measures for state governments to introduce sustainable timber-harvesting policy under strict supervision coupled with afforestation programmes. In the North East, a region that was estimated to be contributing half of the country's total timber production during that time, the impact was instantaneous. The once thriving and unregulated timber trade was reined in but also simultaneously lead to the shutdown of many timber mills across the region and to some extent effecting the livelihood of people dependent on forests.

3.2.2 Poverty in the region

Growth is not the most important objective of economic policy. It is necessary to ensure that the benefits of growth accrue to all sections of the society. Therefore eradication of poverty is an important objective. To survive human beings need a certain minimum consumption of food and non-food item. However from time to time and across countries the perception regarding what constitutes poverty varies. Measurement of poverty is necessary to evaluate how the economy is performing in terms of providing a certain minimum standard of living to all its citizens. It was only after the publication of Report of Expert Group in 2009 popularly known as Tendulkar committee report that estimates of poverty ratio for states in NER became available. Earlier Assam's poverty ratio used to proxy all other north eastern states. The new estimate is based on private expenditure per capita near the poverty lines on food, education and health by comparing them with normative expenditures consistent with nutritional, educational and health outcomes.

The table 3.8 presents a comparative picture of dynamics of poverty in the region. In 1993-94 three states of the region had head count poverty ratio higher than the national average. Manipur had the highest and Mizoram the lowest poverty ratio in India. In 2011-12 the Head Count Ratio of the same three states had HCR higher than the national average. The poverty ratio in Manipur had been persistently above the national average.

As a whole, poverty ratio has declined over time in all states in the region. Manipur, except for 2004-5, had the highest poverty ratio among the north eastern states. It is only in Sikkim, poverty ratio had persistently declined from 31.8% in 1993-4 to 8.2% in 2011-12.

Table 3.8: Percentage of population below Poverty line (Tendulkar methodology)

	1993-94	2004-05	2009-10	2011-12
Arunachal Pradesh	54.5	31.1	25.9	34.7
Assam	51.8	34.4	37.9	32.0
Manipur	65.1	38.0	47.1	36.9
Meghalaya	35.2	16.1	17.1	11.9
Mizoram	11.8	15.3	21.1	20.4
Nagaland	20.4	9.0	20.9	18.9
Sikkim	31.8	31.1	13.1	8.2
Tripura	32.9	40.6	17.4	14.0
All India	45.3	37.2	29.8	21.9

Source: GOI (2014), Report of the Expert group, Planning Commission

3.2.3 State Finances

The tax revenue of most of the North-eastern States is very limited due to low levels of commercial activity and low levels of consumption. The own tax revenue of States consists of VAT, State excise duties, stamp duty and registration fee, motor vehicle tax, goods and passenger tax and other minor taxes. The components of own non-tax revenue are: (a) interest receipt and dividends (b) royalty (c) receipts from forestry and wild life (d) other miscellaneous general services including lotteries and (e) earning from irrigation projects.

The following table 3.9 indicates the state of finance of these states. Own tax and non tax revenue constitute a small segment of expenditure requirements. Even for revenue

expenditure it constitutes a small proportion. It means these states largely depend on various forms of transfers from the central government.

Table 3.9: State of Finance of NER states

NER states	Own tax revenue in billion (2015-16)	Own non tax revenue in billion (2015-16)	Own tax & non tax revenue as percent of revenue expenditure (2015-16)	Gross Fiscal deficit as percent of GSDP (2015-16)
Arunachal Pradesh	5.6	4.9	10.48	1.49
Assam	118.4	28	24.89	11.34
Manipur	5.9	1.9	10.08	5.68
Meghalaya	10.4	3.1	18.18	3.15
Mizoram	3.1	2.7	7.69	1.01
Nagaland	4.5	2.4	8.41	5.86
Sikkim	5.9	3.6	21.69	3.4
Tripura	13.2	2.8	18.73	4.99

Source: RBI handbook of statistics, 2017

Finance Commissions constituted every five years since 1950-51 and it decides the share of taxes for the states, the quantum of the grant in aid of revenues and state specific grants. The awards of the XIV Finance Commission will be operative till March, 2020. The following table shows that the share of the NER states in the divisible pool of taxes has been increasing: .

Table 3.10: Share of NER states with and without taxes under various Finance Commission

NER states	Share of Divisible pool without service tax			Share of service tax		
	XII (2005-10)	XIII (2010-15)	XIV (2015-20)	XII (2005-10)	XIII (2010-15)	XIV (2015-20)
Arunachal Pradesh	0.288	0.328	1.370	0.292	0.332	1.431
Assam	3.235	3.628	3.311	3.277	3.685	3.371
Manipur	0.362	0.451	0.617	0.367	0.458	0.623
Meghalaya	0.371	0.408	0.642	0.376	0.415	0.650
Mizoram	0.239	0.269	0.460	0.242	0.273	0.464
Nagaland	0.263	0.314	0.498	0.266	0.318	0.503
Sikkim	0.227	0.239	0.367	0.230	0.243	0.369
Tripura	0.428	0.511	0.642	0.433	0.519	0.648
Total	5.413	6.148	7.907	5.483	6.243	8.059

Source: Various Finance Commission Reports

Northeastern states enjoy preferential treatment by virtue of being a special category states. The constitution of India vide articles 370 and 371 provides for special privileges to certain states or treat certain disadvantaged regions of the country in a special manner (Bhattacharjee, 2016). However there is no provision to grant special financial assistance to address the problems of remoteness, geographic isolation and backwardness. The mechanism of special category status was meant to address this. All the NER states belonged to the special category. Assam, Jammu & Kashmir and Nagaland were accorded the special category status in 1969 after the Fifth Finance Commission had recommended liberal dose of central assistance for them under the five year plans (Bhattacharjee, 2016). Manipur, Tripura and Meghalaya were granted this status in 1972 followed by Sikkim in 1975, Arunachal Pradesh and Mizoram in 1987. This status is granted to a state by the National Development Council on the recommendation of the Planning Commission. The criteria details certain common features such as

i. Places with hilly and difficult terrain

ii. low population density and /or sizeable share of tribal population

iii. places with strategic location encompassed by borders of neighbouring countries

iv. low economic and infrastructural structures

v. poor feasibility of state finances.

According to Bhattacharjee (2016: 54) "the creation of special category states, for according to them special privileges in terms of liberal plan assistance is nothing extraordinary in a federal setup; such an arrangement easily fits into framework of federal structure in a diverse country like India."

Such practice of asymmetric federalism is also found in Belgium, Canada, Spain, Italy and Switzerland. Under this policy Central assistance is provided to a special category state as 90 % grant and 10% loan as against 70% loan and 30% grant for non- special category states. As far as Assam is concerned 90:10 formula was applicable in its hilly areas in the beginning. It was extended to the entire state of Assam in October ,1990 only. Over the years, eleven states were accorded this status — Arunachal Pradesh, Assam, Himachal Pradesh, Jammu & Kashmir, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura and, finally, in 2001, Uttarakhand. Until 2014-15, under Special Category Scheme these 11 states received a variety of benefits and sops. (Bhattacharjee, 2016)

The following are the benefits as the Award of special category status (under the Revised Gadgil-Mukherjee formula):

- 11 special category states (SCS) get 30% of NCA (Normal Central Assistance), while the remaining states get 70% of the allocation.
- 90% grant and 10% loan for special category states, while for other states it is 30% grant and 70% loan in case of NCA.
- 90% grants and 10% loan is for the SCA (Special Central Assistance) projects, special central assistance of up to 100% grant is given only to special category states.
- Assistance is given for externally aided projects with grant-loan ratio of 90:10.

- The matching contribution in respect of centrally sponsored schemes is usually lower for Special Category states (SCS), central share is 90% for special category while it is 25% for other states.
- Special category states can enjoy concessions in excise and customs duties, beyond additional plan resources, income tax rates and corporate tax rates are determined by the government.

However, these benefits have been progressively diluted in the following ways:

- NCA is given entirely as grant to all states and the loan component of the normal central assistance has been removed since 2005-06. This has reduced the share of NCA for SCS to around 56% (earlier it was 70%).
- Further, NCA has reduced to account for merely 15% of central plan assistance, as there was a proliferation of centrally sponsored schemes, thereby diluting the benefit of untied grants to states.
- The 90:10 formula for special category states is now applicable in centrally sponsored schemes and externally aided projects.

But with the recommendations of the Fourteenth Finance Commission having been accepted, the SCS has lost its specialty. The NITI Aayog has replaced the Planning Commission and it has no power to allocate funds — therefore, the discretion that the ruling party at the Centre had to dole out special category funds to states through the Planning Commission can no longer be possible because it does not exist anymore. Following the constitution of NITI Aayog in January, 2015 (after the dissolution of the Planning Commission in August 2014) and the recommendations of the Fourteenth Finance Commission (FFC), Central plan assistance to SCS States has been subsumed in an increased devolution of the divisible pool to all States (from 32% in the 13th FC recommendations to 42%) and do not any longer appear in plan expenditure. The FFC also recommended to include variables such as "forest cover" in devolution, which could benefit north-eastern states that were previously given SCS assistance. However the centre has dispensed with NCA, SCA and special plan assistance from 2015-16 onwards,

along with that the increase in tax devolution share from 32% to 42% of divisible pool of central taxes.

3.3 Developmental challenges of the NER

According to the Working Group on Development of the North Eastern Region during the Seventh Five year (GOI 1985:18) the challenges before the region can be summed up as follows:

"The basic tasks before the region, in accordance with the objective set at national level are (a) attainment of self sufficiency in food (b) a higher level of social consumption particularly in education, health, nutrition, sanitation, water supply and housing (c) reduction in infrastructural bottlenecks (d) industrial development and generation of productive employment and (e) ecological and environmental consideration. Simultaneously, such resources of the region which enjoy locational advantage will have to be appropriately exploited for use not only within the region but also for the country at large"

It is interesting to compare it with what NER Vision 2020 (2008:2) after twenty three years has to say "The challenges to ensuring peace and progress in the region are formidable. The gap between the region and the rest of the country in terms of various developmental outcomes, productivities and capacities of people and institutions is large and growing, and has to be bridged. Even within the region, there are vast differences, particularly between populations living in the hills and in the plains and between those living in the towns and villages. Given the vast disparities within the region, a development strategy will have to be evolved depending upon prevailing resources, conditions and people's needs and priorities. Further, the development strategy for the various tribes in the region will have to be participatory and should be calibrated in their own setting. Given the complexity of the task, augmenting investment to accelerate growth in the region is only a part of the story. The successful transformation of investments into developmental outcomes requires a variety of strategic initiatives."

The NER vision 2020 document (2008) put forward a strategy for delivering inclusive development of the region consisting of five interdependent components which are given as follows :

(i) participatory development articulated through grass-roots planning in which focus should be to develop the sectors and sub-sectors with comparative advantage;

(ii) increasing the capacity of the people to participate productively in the economic activities and creation and development of the institutions to design and implement developmental programmes as preferred by the people;

(iii) promoting the increase of infrastructure, particularly connectivity and transport infrastructure to facilitate the movement of people and goods within the region and outside the region and open up markets for the produce in the region, attract private investments and create greater employment opportunities and choice for the people of the region;

(iv) ensuring sufficient flow of resources for public investments in infrastructure as well as implementing a framework to encourage private participation in increasing the infrastructure level and creating an environment attracting outsiders investments from within the country as well as foreign investors to improve the physical resources of the region for the welfare of the people; and

(v) transforming the governance by providing a secure, responsive and market friendly environment including protecting the property rights of the investors and ensuring a corruption free administration. Protecting the rights of the tribals for the use of land and forest resources is particularly important to ensure a sense of belonging and security to them.

The discussion on the appropriate policy initiatives will be more meaningful when it is framed against the backdrop of the reasons behind the current state of affairs and the vision of the people.

The National Committee on the development of backward areas had identified six types of fundamentally backward areas viz.

i. Area of tribal concentration

ii. Hill areas
iii. Drought prone areas
iv. Hot and cold deserts
v. Chronically flood affected areas
vi. Coastal areas affected by salinity

Planning Commission asked the committee to prepare a separate report for the north east. The committee admitted its limitations

"The National Committee has as its members people with deep administrative knowledge and extensive experience at the field level, however, as far as the North East is concerned the Committee members have a very limited knowledge of local conditions with regard to administration and development problems."

The Committee felt that the NER (excluding Sikkim) did not fall into a separate category of backwardness. Three types of fundamental backwardness are found in the region viz hilly areas, areas of tribal concentration and chronically flood affected areas.

According to Sarma (2005) the major factors constraining economic development of this region in the last few decades are the five I's: initial conditions, infrastructure deficiency, insurgency, imperfection/distortion in factor and product markets and indifferent governance.

1. Initial conditions: Disruption of traditional links:

According to the Shukla Commission (1997:5), "no other part of the country, barring J&K, has had to bear a comparable burden with severe market disruption, total isolation and loss of traditional communication infrastructure , all of which has pushed regional costs and prices well above national norms, transport subsidies notwithstanding". The considerable market disruption, socio economic distancing and retardation that resulted due to partition are yet to be compensated. This led the Commission to state that redressal of this market disruption should not be treated as a special favour. Partition literally compelled all states in the region start from the scratch.

2. Infrastructure deficiency:

The region lacks the basic minimum physical, social and administrative infrastructures for growth. Physical infrastructure such as power, communications, transports, irrigation and market access are grossly inadequate. Poor infrastructure is not conducive to attracting private investment. Although the NER is rich in resources like hydrocarbons, forest, hydro-electricity, and other minerals, high transportation costs did not allow it to grow according to the comparative advantages. The connectivity bottlenecks have made the region perpetually underdeveloped and hence politically volatile.

3. Insurgency:

Except for Sikkim which became a part of India in 1975, there is no state in this region which has not passed through different phases of insurgency. Insurgency is associated with high transaction cost. Insurgency has been listed as both effect and cause of underdevelopment of this region. This has become an excuse for the rent seeking behavior of bureaucrats and politicians. Substantial amount of money earmarked for developmental projects have leaked to the insurgents. Not only money for developmental projects been diverted, an increasing amount of money which could have been earmarked for developmental projects, are being spent on maintenance of law and order.

4. Imperfect Market:

Large inflow of goods and outflow of savings impede growth by distorting factor and commodity markets. Due to low production base and heavy dependence on the rest of the country for their requirements, growth of local demand induces income and employment generation in the states with larger production base. Low credit deposit ratio means most of the deposits in the region are invested outside the region.

5. Indifferent governance:

The state governments in the region have not contributed much in mainstreaming the development process. Except for Tripura and Sikkim, other states in the region have a poor governance record. Many opportunities thus have been squandered. Consistent pursuit of clearly defined priorities in a development perspective contributes to growth.

Development policies with well articulated thrusts pursued over a period of time will unleash the growth potential.

3.3.1 NER under Planning

In the beginning the development initiatives in the region used to be anchored on two perspectives: security perspective and perspective based on least interference in traditional institutions and practices. Upto the third five year plan North East region did not figure explicitly in the development policy discourse. In the plan the issue of balanced regional development comes to the center stage. The focus was on how to secure the fullest possible utilization of the resources of each of these region and so that it can contribute to its highest potential to the national pool and therefore take its due share from the benefits accruing from national development. The reason behind backwardness of regions including the north east by implication was the failure to secure proper utilization of resources. The second five year plan envisaged an effort to promote greater mobility of labour between different parts of the country and to organize schemes of migration and settlement from more to less densely populated areas. Shortage of labour was considered an important reason for lack of optimum utilization of the bountiful resources. The Fifth Five Year Plan was a watershed for development in the North East. The NEC became operational. It was under the Home Ministry reflecting the obsessive concern for security among the policy makers. The concept of sub plan was introduced. Central assistance to the hill areas was made more systematic. Even though the need for central assistance for development of hill areas forming part of larger composite state as in Assam was recognized as early as the Second FYP yet it was not systematized. It was recognized that the investments needed for meeting the infrastructural gaps in communications, transport, power generation and transmission, for the development of stable and diversified agriculture in place of jhum cultivation, horticulture, plantation crops and large scale afforestation was immense and there was no way these states can generate matching resources. This justifies the current practice of central plan assistance for the special category states.

During the Fifth and Sixth FYP the economic policy of the region was part of the Hill area development programme which highlighted the issues of difficult terrain,

agro-climatic conditions and historical lag in economic development and also the immense growth potential. Since the Seventh FYP it came under the Hill area development programme component of Special Area Development Programmes. The programmes during the fifth FYP were beneficiary oriented. The emphasis shifted to eco-development in the sixth plan. The seventh plan emphasised the development of ecology and environment aiming at evolving programmes to take care of socio-economic growth, development of infrastructure and promotion of ecology of the region. The seventh Plan identified the basic tasks of the region as follows (i) attainment of self sufficiency in food (ii) viable solution to the problem of shifting cultivation (iii) ecological and environmental protection (iv) reduction in infrastructural bottlenecks (v) development of suitable small, village and cottage industries and generation of productive employment (vi) manpower development.. During the eighth plan the focus was on productive sectors of the hill economies by modernizing the agricultural practices and small scale industries at household, cottage and village level.

The thrust areas during the ninth FYP were (i) eco-restoration and eco-preservation (ii) involvement of the local population (iii) gender sensitive planning (iv) use of appropriate technology (v) redevelopment of traditional agro-eco systems based on traditional knowledge and technology (vi) scientific approach to agriculture, animal husbandry and horticulture in order to raise productivity (vii) development of ecologically sustainable industries and tourism. Since the mid 90s the NE economic development began to find place in the mainstream collective psyche.

During the tenth FYP NER appeared as a category in special area programme. The focus shifted to improving implementation and ensuring better delivery of results, providing upstream assistance and policy support and strengthening capacity and public involvement. The Department of Development of the North Eastern Region (DONER) was set up in September 2001 to cater to the developmental needs of the north eastern region. The NEC Act 1971 was amended in December 2002 to make Sikkim the eighth member of the council. Since 2005 NEC has started functioning as a regional planning body. The preparation of State Development Reports and Human Development

Reports for each of the states has given the opportunity for critically examining the state economies in a holistic manner than ever before.

In 1969 the National Development Council classified Assam, Jammu & Kashmir and Nagaland as special category states enjoying certain privileges in resource transfer from the centre in terms of higher grant component. The method for transfer of plan fund to these states was as follows: Out of a given sum of central assistance for the state plans available in any year, the requirement of funding for aided projects and special area programmes on hill areas, tribal sub plans, border areas, NEC etc is deducted as the first charge. Of the balance 30% is set aside for the special category states leaving 70% for distribution among non special category states according to the Gadgil-Mukherjee formula. The inter se distribution of this earmarked fund among the special category states is determined in the light of the previous plan size and special problems, needs and priorities of each state. The grant-loan composition of the central Plan assistance for the special category states is 90:10 while for other states it is 30:70. Gradually all the states in the region became special category states till the discontinuance of the scheme in 2015 when NITI Aayog replaced the Planning Commission.

In October 1996 the central government, announced an economic package of Rs 6100 crore for specific projects in the NER. North east sub plan was introduced in all central ministries for which 10% of their budgets would be earmarked for the region. The high level Shukla commission examined the backlogs in basic minimum services, and gaps in important sectors of infrastructure development in the seven states. A detailed report was submitted in 1997 to eradicate poverty and upgrade infrastructural development where there was a serious intent of bringing the region on par with the rest of the country within the next five to ten years. The commission recommended Rs 9395 crore to meet the gaps in six basic minimum services: Housing for shelter less poor, Rural Connectivity, Safe drinking water supply, Elementary education, primary health and PDS. This was a quantum jump as the funding for BMS in all the seven states was around Rs 418 crores per annum. The Commission made an interesting comment on the feasibility of such a quantum of funding --

"Large though the funding requirement may appear, it constitutes only 0.7 of one percent of GDP. Between 1990-91 and 1994-5 the central Government tax GDP ratio declined by a full one per cent of GDP from 10.8 percent to 9.8 percent. In other words, resources of the order of one percent of GDP were given up presumably in favour of the better –off sections of society as " incentives' in the name of economic reforms. It will be difficult to argue that it is not feasible to undertake resource mobilization of even a lesser order and dedicate the same for BMS to the poor and disadvantaged in the Northeast"(p-15). In Jan. 2000 the central government further announced a Rs 10,271 crore package.

International Engagement and Opportunities in Act East Policy

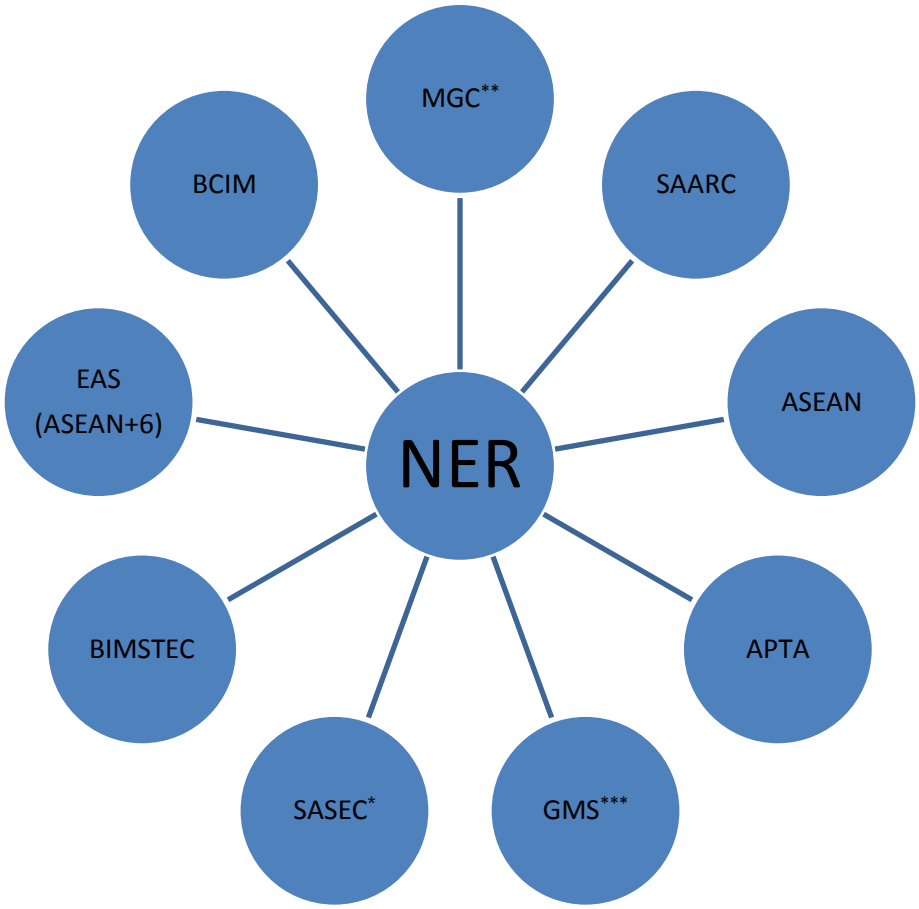
Most international trade economists have a perspective of a world in which countries exchange goods, factors and ideas. Free trade in goods leads to equalization of factor prices across countries according to the factor-price-equalization theorem. In the traditional literature on neo-classical growth model, capital and labour play the central role as two main factors of production. From the perspective of conventional one sector neo-classical growth theory international linkages do not matter, but from the trade perspective they are the crucial determinants. It may be argued that greater openness of an economy is potentially beneficial to all but requires appropriate policy designs to realize it (Basu, 2006). Stiglitz (2002;4) sums up the empirical findings which vindicate this perspective "Opening up to international trade has helped many countries grow far more quickly than they would otherwise have done. International trade helps economic development when a country's exports drive its economic growth. Export-led growth was the centerpiece of the industrial policy that enriched much of Asia and left millions of people there far better off." Trade and infrastructure development in NER may be seen in this perspective. As the national market centres are far away, markets across the border can act as the vents for surplus generated in NER. Access to these markets was not restricted in the pre partition era. Undoubtedly, distance is exogenous, and it is a major determinant of a region's trade prospects.

NER enjoys very special advantages over other parts of India in trade in view of India's Act East Policy (AEP) in general and India's economic engagement with her eastern

neighbours through India-ASEAN FTA and other bilateral FTAs in particular. NER's locational advantage and rich natural resources justify its development as a base for cooperation not only with the ASEAN but also with neighbouring countries such as Bangladesh, Bhutan, and Nepal. Regional cooperation centering NER can be extended through Myanmar to Mekong region, comprising Cambodia, Lao PDR, Thailand, and Vietnam. NER can emerge in the new geo political set up as a strategic base for foreign/domestic investors to tap the world's largest market in SAARC, BIMSTEC, and ASEAN. At the same time, it has certain problems, which, if tackled and leveraged in the right perspective, could yield rich dividends. It is therefore essential to evolve a regional approach as opposed to individual state approach while framing trade policy for the NER. It remains a big question as to what extent this can be achieved given the inter state bickering on state boundaries and ethno nationalism spread over states. On the other hand Chellaney (2015: xxii) argues that India has little choice but to look east "because when it looks west, it sees only trouble. The entire belt to India's west from Pakistan to Syria is a contiguous arc of instability, volatility and extremism. Looking east allows India to join the economic dynamism and relative political stability that characterizes that region."

Over the past several years, a number of regional and sub-regional initiatives have been taken by countries in South and South East Asia, which would help shape the economic geography of the region. These include the enhanced cooperation among the members of the South Asian Association of Regional Cooperation (SAARC) that have agreed to set up a South Asian Economic Union, the Bay of Bengal Initiative for Multi-sectoral Technical and Economic Cooperation (BIMSTEC), the Asia-Pacific Trade Agreement (APTA). Besides, India has adopted the "Look East" policy and is engaged in deepening economic cooperation with the ASEAN and countries belonging to the East Asia Summit (EAS), which brings together the ASEAN and six of its partner countries, including India. Providing fillip to these initiatives is not possible without NER playing a pivotal role. The Look east policy initiated in the early 90s has become Act East policy in 2014.

Figure 3.1: NER as India's Gateway to the East



Notes: * South Asia Sub-regional Economic Cooperation (SASEC)
** Mekong-Ganga Cooperation ***Greater Mekong Sub-region (GMS)

The significance of these initiatives is in integrating the region with dynamic markets in south east and east Asia . it is significant because the stagnation of the region is often argued to have started in post independent India when the region lost most of its infrastructure of railways and riverine navigation to the erstwhile East Pakistan and now Bangladesh. According to Mukherjee (1992) though the history of commerce of the early northeast is yet to be documented rigorously, there are evidences that there used to be movement of people, culture and merchandise between North east India and other parts of the sub continent as well as South China. The region became a remote area in

independent India. These regional and sub regional initiatives are likely to restore and expand the linkages. According to Upadhyay (2013) the locational disadvantage inhibiting growth in this region can be converted into an advantage with the increasing integration with the world economy. Bigger markets create opportunities for benefitting from returns to scale and international competition enhances competitiveness through higher factor productivity. The social capital based on the social, cultural, economic and psychological bonds along the borders can unleash lots of opportunities.

Sarma (2013:34) argued that "the landlocked Northeast in the aftermath of partition will have wider market access, that too with some of the fastest growing South-East Asian and East Asian economies. This market integration would boost trade with those countries with the Northeast serving as the gateway. Trade would thus serve as a driver of rapid economic development of the region".

The natural outlet of the Northeast would be reinvigorated. Historically mainland India's trade with south east Asia has been through the maritime route and it still competes with the use of continental route through the north east. Bezbaruah & Sarma (2013:60) argues that "as this continental route has not even been explored yet, it is difficult to dismiss the route as economically unviable". The economics of the region can undergo a sea change by the prospects of improved connectivity in the region such as the Trans Asian Railway and Highway projects initiated by UN-ESCAP. No less important is the growth of self confidence among the entrepreneurs in the region in diversification in new activities as part of Act East policy.

Supply-side constraints are inhibiting NER's two-way trade with its neighbours. India's merchandise trade under Free Trade Agreements – regional and bilateral FTAs - is expected to increase manifolds and NER is central to India's trade integration with ASEAN. Without improved connectivity, NER wouldn't witness higher trade creation and expansion of its export. Its geography dilutes most of the benefits of trade liberalization due mainly to higher transaction cost. One suggestion is that the region has to be linked through alternate access to sea and the remaining part of India across Bangladesh. The Kaladan multimodal transport project would provide access to the sea, and trans shipment facility at Chittagong port in Bangladesh and transit through

Bangladesh will help facilitate the region's national and international trade in a big way. Facilitation of border trade should be another important priority for the government. There is urgent need to promote interaction with neighbouring countries for enhancement of cross-border trade and investment.

The North-East's formal and informal trade with Bangladesh through Assam (Mankachar and Karimganj routes), Tripura (Agartala) and Meghalaya (Western Meghalaya-Baghmara and Chibbari) largely comprised of farm and animal husbandry products, agro-processed products like sugar, and manufacturing products such as medicines, cosmetics, motorparts and bicycles as exports and jewellery ,electronic goods and cotton textiles as imports from Bangladesh. (Sarma 2013:39-40) subsequent to the signing of the border trade agreement with Myanmar in 1994 cross border trade has been occurring at Moreh in Manipur, Nampong in Arunachal Pradesh, Zokhawthar in Mizoram and Ava Khung in Nagaland more at the informal level.

The importance of informal trade is immense for the NER, for it brings direct tangible benefits to the region. Trade across the borders of India with both Bangladesh and Myanmar face a plethora of problems. With 98 percent of India's NER constituting international boundaries, there is urgent need to strengthen not only transport and communication infrastructure but also the institutional support that is currently available at the border so as to enhance the existing level of trade and economic linkages with countries bordering the NER, including Bangladesh and Myanmar.

3.4 Economic growth & structural change in NER

The progress of rural economy is an essential condition for development of NER. This is mainly for two obvious reasons. Firstly, over 80 per cent of the population of the region lives in rural areas and its livelihood depends on agricultural & allied activities. Secondly, there is abundance of natural resources in the economy and utilizing for the benefit of the population would require strengthening the linkages. Development of rural economies in the region may rest on activities like agriculture, forestry, livestock, minerals and rural non-farm activity. NER is a services driven economy as 55.9 percent of annual income come from services sector. However, agriculture is the mainstay of the

economies of the NER as it accounts for 21.83 percent NSDP (2013-14) and is a major source of employment and livelihood for around 80 percent of the population.

Table 3.11 displays heterogeneity of the region. Industry in Sikkim contributed 60% of real NSDP. Services contributed 67 % of Mizoram's NSDP. Agriculture & allied sector continues to contribute around 33% of NSDP in Arunachal Pradesh. The area of forest cover in Arunachal Pradesh is 67,417 sq.km and it is the second largest in India (Lama, 2016). The service sector has become the dominating sector except for Sikkim. The table also shows the aggregation of eight states into a NER entity, a hypothetical unit of consensus. The shares of Agriculture & allied sector, industry and services in domestic product of NER were 22%, 22% and 55.9% respectively. Though Sikkim is the smallest and least populated state in NER, its manufacturing contributed 36.9% of its NSDP, the highest in the region. It also has the highest per capita income in the region. Agricultural growth has been uneven across regions and for different crops. NER continues to be a net importer of food grains. In spite of covering 8.8 percent of the country's total geographical area, NER contributes to only 1.5 percent of the country's total foodgrain production.

Table 3.11: Comparative Structure of Northeastern States (2013-14) sectoral shares (%)

Sector	Arunac-hal Pradesh	Assam	Manipur	Meghalaya	Mizoram	Nagaland	Sikkim	Tripura	NER
Agricultu-re	19.53	18.35	16.01	12.75	13.44	20.59	9.69	15.35	17.06
Forestry & logging	12.77	2.58	2.59	3.52	4.63	5.54	0.64	4.95	3.59
Fishing	0.32	1.28	1.69	0.23	0.85	0.38	0.04	2.41	1.19
Ag & Allied	**32.62**	**22.2**	**20.3**	**16.5**	**18.92**	**26.51**	**10.37**	**22.7**	**21.83**
Mining & quarrying	1.25	3.78	0	4.44	0.11	0.1	0.21	1.09	2.63
Manufactu-ring	2.47	5.17	4.41	4.44	1.59	1.6	36.91	2.3	5.41
Registere-d	0	2.56	0.54	3.79	0.12	0.47	36.06	0.82	3.28
Unregiste-red	2.47	2.61	3.87	0.64	1.47	1.13	0.85	1.47	2.13
Construct-ion	20.89	10.1	16.1	19.05	10.16	10.32	17.68	17.35	12.85
Electricit-y, gas and Water supply	2.48	0.51	4.63	1.97	2.12	1	5.24	1.52	1.34
Industry	**27.09**	**19.55**	**25.15**	**29.9**	**13.98**	**13.03**	**60.04**	**22.25**	**22.24**
Transport, storage & communic ation	3.77	9.39	4.24	8.36	2.83	10.8	2.6	7.13	8.12
Railways	0	1.55	0	0	0	0.05	0	0.01	0.84

Transport by other means	2.21	3.47	1.92	5.31	1.93	6.05	1.3	4.92	3.74
Storage	0.01	0.06	0.04	0.03	0.03	0.02	0.02	0.03	0.05
Communica-tion	1.55	4.3	2.29	3.03	0.87	4.67	1.28	2.17	3.49
Trade,hot-els and restaurant-s	4.5	14.56	7.46	10.48	8.97	3.83	2.6	11.69	11.58
Banking & Insurance	4.34	5.95	3.59	4.66	3.49	3.97	3.61	3.85	5.04
Real estate, ownershi-p of dwellings and business services	2.12	2.08	2.54	6.96	14.29	18.67	5.03	6.98	5
Public administra-tion	13.43	7.04	18.08	9.92	18.19	14.51	8.47	13.27	9.97
Other services	12.13	19.22	18.64	13.21	19.33	8.69	7.28	12.13	16.22
Services	**40.29**	**58.24**	**54.56**	**53.6**	**67.1**	**60.46**	**29.59**	**55.05**	**55.93**

Source: CSO data 2015

Modern economic growth has been accompanied by a change in the structure of the economy whereby the importance of agriculture gradually declined and that of services and manufacturing gradually increasing. A rapid structural change is always associated with the economic growth of any region. Various countries including India have undergone the structural change. A structural change in short means a perpetual rise of the share of manufacturing and services outputs in the gross domestic product over time. Unfortunately, the share of manufacturing in the GSDP of NER has been only 5.41 percent in 2013-14 at 2004-05 prices. The share, however, varies across the States

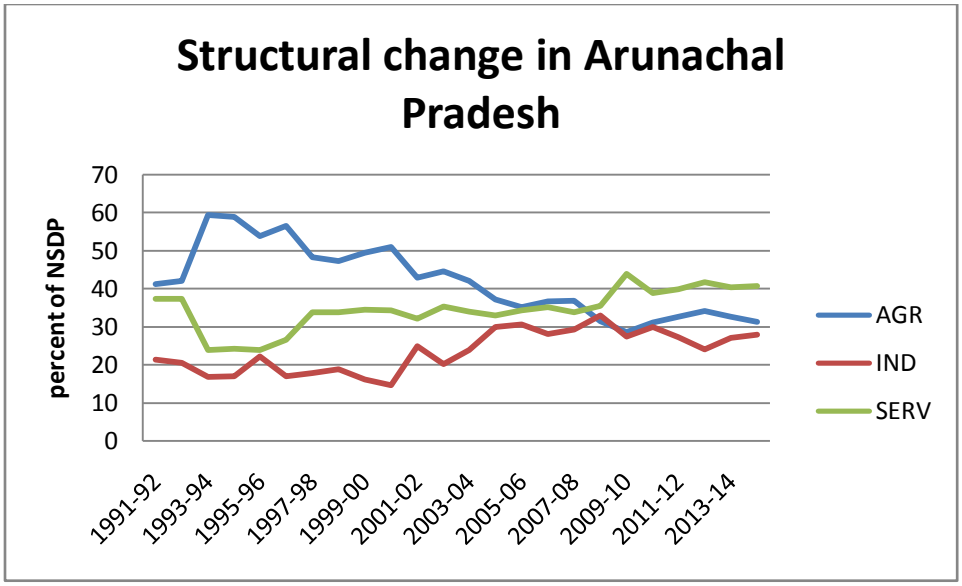
ranging from 1.59 percent in Mizoram to 36.91 percent in Sikkim. Thus, the pattern of industrial development of NER has not been in conformity with the standard historical trend even with respect to India. That is, industrialization has failed to take off in the region. This failure to achieve a significant increase in the share of manufacturing in GDP is reflected in the poor growth rates both in GDP and per capita GDP in NER.

The following diagrams show the evolution of the structures of NER states in the post reforms era. Source of the data is from the CSO report 2015.

The initial structures of the states differ. Service sector dominated the economies in Tripura, Sikkim, Nagaland, Mizoram and Meghalaya and in Arunachal Pradesh it was agriculture. In Manipur and Assam it was industry. By 2013-14 services became the dominant sector in all states except Sikkim where industry contributed 60% of real NSDP. The diagrams given below show the heterogeneity in sectoral dynamics. However, the share of agriculture has been declining in all the states (except Nagaland), indicating that these states have undergone significant structural changes. With the exception of Meghalaya, the share of industrial sector in general has been falling, accompanied by an increasing share of services. While agriculture in NER grew at a much higher rate (4.5 percent) in comparison with the average of the country (about 1.2 percent) in last one and a half decades, however growth rates differ among different states of the region.

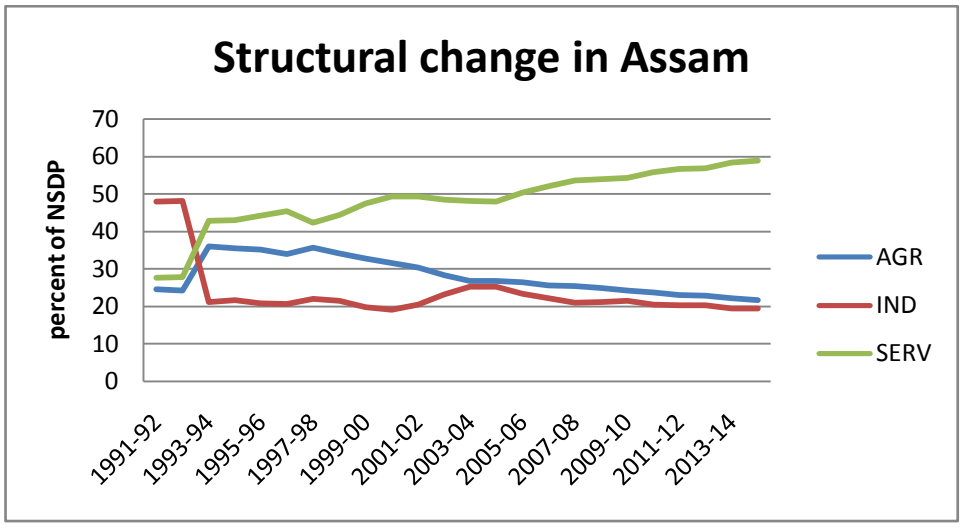
The industrial sector of the states of Meghalaya, Tripura, Sikkim has been growing. Infact Sikkim had sudden spurt of growth in industrial sector during 2009-10. However, the growth performance of the manufacturing sector in the NER states of the region has been poor. The growth in industrial sector mostly comes from the growth in construction sector. In Arunachal Pradesh industrial sector has been virtually stagnant. The poor performance of the manufacturing sector seems to be one of the prime cause of the relatively poor performance of GDP growth of the region. Most of the manufacturing sector comprised of small scale industries.

Figure 3.2: Structural change in Arunachal Pradesh (1991-2014)



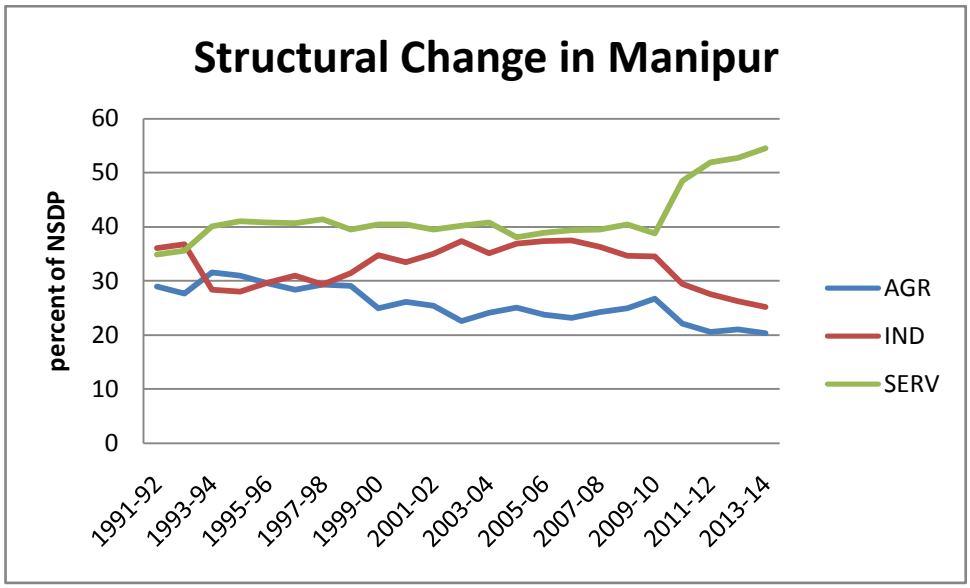
Note: AGR stands for agriculture, IND stands for Industry, SERV stands for service.
Source: CSO report 2015

Figure 3.3: Structural change in Assam (1991-2014)



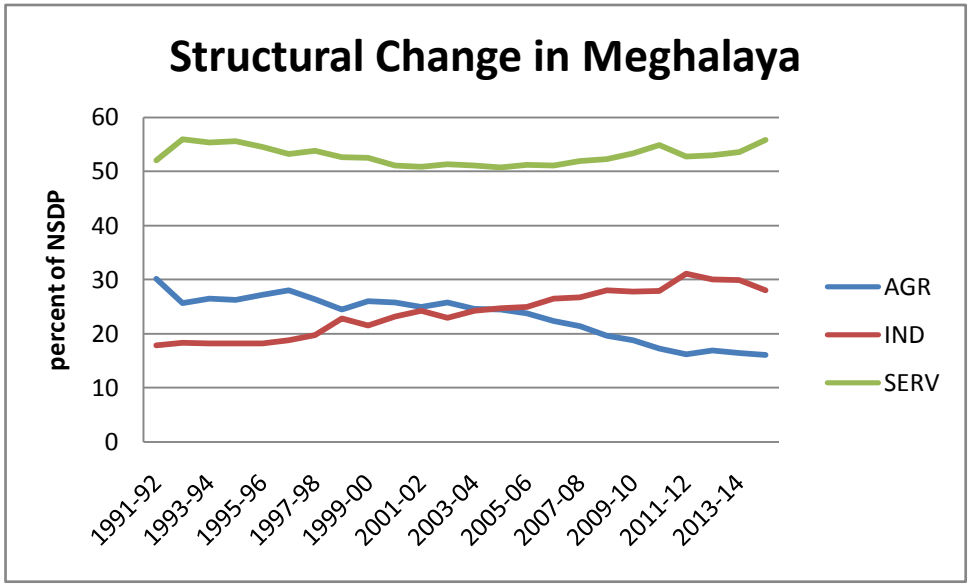
Note: AGR stands for agriculture, IND stands for Industry, SERV stands for service.
Source: CSO report 2015

Figure 3.4: Structural change in Manipur (1991-2014)



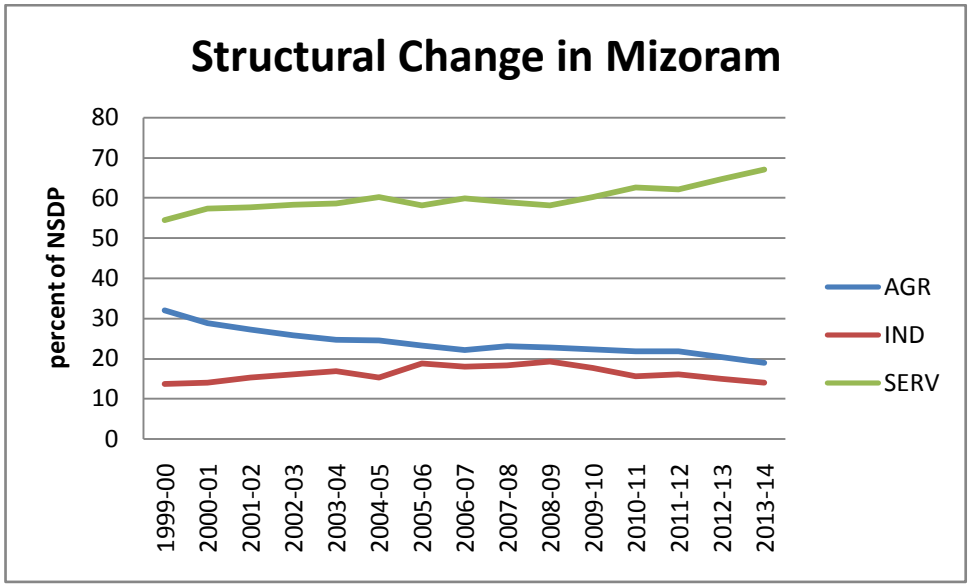
Note: AGR stands for agriculture, IND stands for Industry, SERV stands for service.
Source: CSO report 2015

Figure 3.5: Structural change in Meghalaya (1991-2014)



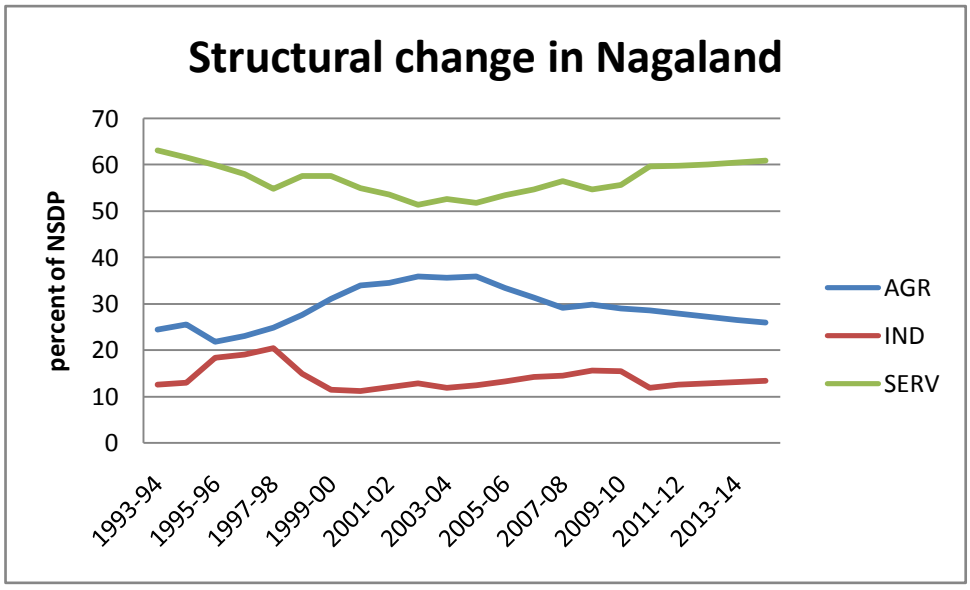
Note**:** AGR stands for agriculture, IND stands for Industry, SERV stands for service.
Source: CSO report 2015

Figure 3.6: Structural change in Mizoram (1999-2014)



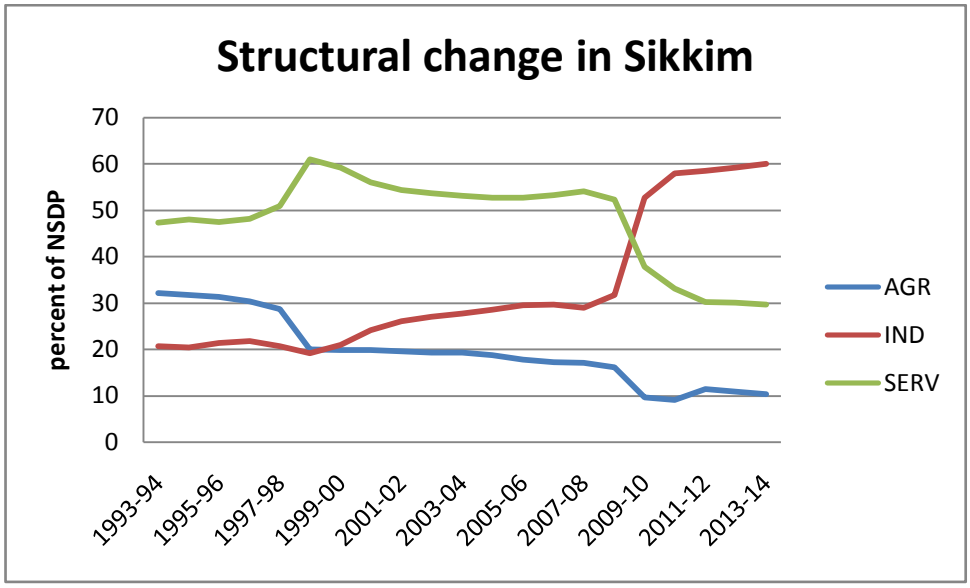
Note: AGR stands for agriculture, IND stands for Industry, SERV stands for service.
Source: CSO report 2015

Figure 3.7: Structural change in Nagaland (1993-2014)



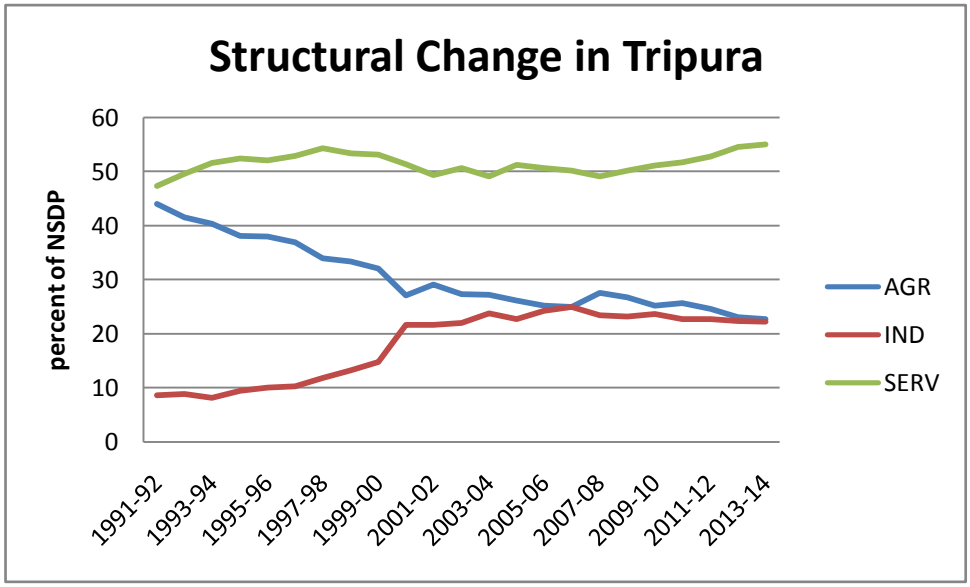
Note: AGR stands for agriculture, IND stands for Industry, SERV stands for service.
Source: CSO report 2015

Figure 3.8: Structural change in Sikkim (1993-2014)



Note**:** AGR stands for agriculture, IND stands for Industry, SERV stands for service.
Source: CSO report 2015

Figure 3.9: Structural change in Tripura (1993-2014)



Note: AGR stands for agriculture, IND stands for Industry, SERV stands for service.
Source: CSO report 2015

3.4.1 Structural Breaks in NER after the liberalization

India embarked on wide spread changes in economic policy in 1991 first at the national level and subsequently at the sub national levels. The shifts in policy in terms of greater openness and liberalization were expected to enhance the growth potential by accelerating economic growth and by bringing a structural break in the corresponding growth rates.

Normally growth rates are calculated after fitting a line over the entire period as if there were a single growth rate. Hansen (2001:127) argued that "Structural change is pervasive in economic time series relationships and it can be quite perilous to ignore. Inferences about economic relationships can go astray, forecasts can be inaccurate and policy recommendations can be misleading or worse" However economic and non economic factors might modify the growth rates over sub periods. The specification used to search for breaks in growth rate is the semi logarithmic linear trend equation

$$\mathbf{Log\ (y) = a + bt}$$

A structural break is said to have occurred if any or all of the parameters has changed. Tests for structural break include tests with a-prior knowledge of breakdate as in Chow (1960), tests for a structural break of unknown timing as in Brown, Durbin & Evans (1975) and tests for structural break with an estimation of the timing of structural break as in Bai & Perron (1998). This study uses Bai Perron (1998) methodology for studying structural change which can also identify multiple break points in a time series. Unlike other tests such as Chow test, Cumulative sum and cumulative sum of squares neither is there any need to specify the break point a priori nor one has to be content only with the knowledge of presence or absence of a break, not knowing where the break had occurred if there was a break. It is also more reasonable to allow a structural change to become effective after a time lag when the determinants change. Kaur (2007) examines the break in India's growth rates by comparing the trend rate of growth of pre reform and post reform periods. She concludes that the liberalized policies adopted since 1991-92 accelerated the overall growth rates. Balakrishnan & Parmeswaran (2007) examine the turning points or break dates of economic growth in India since the 1950s by using the

Bai & Perron (1998) methodology. They conclude that "there is across-the-board dynamism in the Indian economy during this period in that all the major sectors show an acceleration in their rate of growth" (Balakrishnan & Parmeswaran (2007:2920)) The sequence of acceleration is primary, tertiary and secondary. The acceleration of growth in the primary sector provided the stimulus to growth in other sectors of the economy. Ganesh (1992) applied switching regressions technique to identify the breakdates from the time series data on Indian GDP by three broad sectors. He found the primary sector to be the basic driver for acceleration. Dholakia (1994) examined the spatial origin of acceleration in the Indian economy during 1960-61 to 1989-90 across 20 states using NSDP data at 1980-81 prices. Only one breakdate was sought to be identified in primary, secondary and tertiary and overall NSDP in each state. One interesting inference was the presence of several latent dynamic forces in the Indian economy leading to acceleration in economic growth rather than the changes in the policies of the central government. The researcher warns that the breakdates so identified can change as and when the base year changes or additional observations are available or newer techniques of analysis are employed. The purpose of studying structural breaks is limited. There is no pre reforms and post reforms analysis. What is attempted is to throw some light on the drivers of acceleration, if there is any in the post reforms era by looking at sequence of the break dates.

Agriculture in India depends heavily on rainfall and if it gets too little or if it gets excess then the agricultural failure occurs and production gets sluggish for the year. This effects the whole of agricultural sector as well as the economy as half of the working population depend on this sector for livelihood. The North eastern states being mostly an agrarian economy do get affected whenever there is sluggish performance of agricultural sector.

The NER states do not normally reach the full potential in agricultural sector even though most of the population depend on it for livelihood. The lack of supply of seed and quality planting material, lack of very high transportation cost and availability of market for these commodities are the major obstacles for attracting induced investment in the food grain sector. In addition there are constraints for the development of desired market dynamics in the region because of low volume of marketable surplus and lack of assured

supply of these high value products throughout the year (Tripathi et al., 2007). Lack of information, huge post harvest losses, lack of link road, poor market intelligence, high transport cost etc are the other constraints impede horticultural development (Mittal, 2007).

Table 3.12 presents the growth rates and structural breaks for various states of NER and their subsectors using NSDP for 1991-2015. Bai Perron method has been conducted with the help of Eviews software for estimating the results presented in tables 3.12 and 3.13. The reason for structural breaks could be broadly classified as (i) policy changes (ii) political regime changes (iii) natural calamities (iv) social and communal disturbances (v) economic blockades etc. The factors vary from state to state and effect on some sectors is greater than others.

Given below are the factor implications of each of the NER states that might have either increased or decreased the sectoral performance and overall NSDP.

Arunachal Pradesh

Arunachal Pradesh, the largest NER state had a moderate growth rate during the span (1991-2015) of 25 years. Being landlocked area, sharing borders with different countries it was difficult to establish good transport facilities that could meet the needs of the state as well as supply goods and services to other markets in proximity. Arunachal Pradesh's NSDP growth had one structural break viz 1997 during the years, 1991 to 2015. However sector wise Service sector had two breaks in the year 1998 and 2010. Agriculture sector had one break during 1998 but there was no break with a growth rate of 8.7% for industrial sector. The reason for break in agriculture as well as service sector during 1998 could be the impact of changes in North East Policy, 1997. The policy included salient features such as development of growth centres to be financed by the Central Government, transport subsidy, Central capital investment subsidy, interest rate subsidy on loans, development of villages and small industries. (GOI, 1997) The service sector had a CAGR of 6.5% for a span of ten years. However CAGR came down to only 2.3% during 2010 to 2014.

Assam

Assam had three structural breaks in agricultural sector and the season could be the distribution of rainfall. Rainfall in Assam is high but the distribution of rainfall is not uniform. The seasonal data of rainfall reveals heavy concentration during monsoon, relatively small quantity during pre and post monsoon periods and rather scanty rainfall during winter. Assam experiences devastating floods and erosions causing immense sufferings to the people of the affected areas, a damage to the standing crops and cattle. According to the Department of Agriculture of Assam, chronically flood prone area of the State is 247.9 thousand hectares and another 89.90 thousand hectares are susceptible to floods. Therefore any fluctuations in growth and structural break in the agricultural growth could be due to floods or in some cases droughts affecting the sectoral output (Economic Survey of Assam, 2009-10).

A negative growth rate of -1.5% was observed for four years from 1998 to 2002, the reason could be decline in the irrigation facilities amongst the less rainfall areas. According to Khound and Borthakur (1999), there was decline of utilization of irrigation during late 1990s and the main reasons were lack of proper distribution channels to carry water from the main channels to the fields and lack of suitable cropping patterns. Only 2.3 per cent of the total electricity consumption in agriculture sector against 28.2 per cent for rest of the country in 1991-92, (Economic Survey Assam, 1999). As a consequence, the crop productivity in the state was very low. This could have impacted the production of food grains and other agriculture produce during late 1990s.

Industrial sector in Assam had two structural breaks. Throughout the span of 25 years the industrial growth was quite low. According to Shukla Committee (1997) isolation of Assam as well as whole of NER from the rest of the country due to geo-political reasons is a setback to the transportation as well industrial growth of the region. During 1992 to 2000 the growth rate was only 1.2%. According to The National Institute of Public Finance and Policy (NIPFP) (1998) government in Assam had easy way out to increase government and public sector employment during 1980s spending most of their revenues on government employees but it became lot tougher in 1990s as there were many

incomplete projects making earlier investment ineffective and therefore low growth in manufacturing as well as construction sector.

However there was an exceptional growth during 2001 to 2005 which stood at 13.8%. In 1997 there was an implementation of industrial policy in Assam resulting in promoting Micro, Small and Medium Enterprises (MSMEs). In continuation, policies with brief changes such as The Industrial Policy of Assam, 2003 was introduced (Industries and Commerce Department, Assam). There were a number of incentives as well as subsidy schemes introduced and financial support for the MSMEs thus leading to better performance.

The service sector had two structural breaks with moderate growth during 1998 - 2015. During 1992 – 1997, there was a setback as the growth was merely 4.9%. The slow growth in construction sector is considered to be the major factor. Series of political disturbances also hampered growth especially in service sector. During 1991 president rule was imposed in Assam, in spite of Asom Gana Parishad (AGP)'s majority support in Assembly. The dismissal was triggered by the threat to internal security due to banned (United Liberation Front of Assam) ULFA's activities. During President's rule, Operation Bajrang was launched to flush out ULFA militants which had impact on the economic activities of the state.

The state of Assam is politically and socially volatile. For Assam during the time of 1996-2001 there were a number of political changes and changes in governments. Structural break in Agriculture as well as service in the year 1998 could be attributed to changes in the political regime and internal disturbance. Agriculture saw another structural break in the year 2003 and this could also be the reason for change in the political regime. The changing socio political scenario had impact on the economic performance of the state.

Manipur

Manipur had a low rate of growth in agriculture for a period of almost 22 years which stood as 3.7% per annum. The slow growth can be attributed to slow growth of irrigation. The irrigated area as percent of net sown area declined from 53.43% in 1986-87 to 37.16% in 2012-13 (Singh and Bera, 2017). The poor performance on irrigation front may be attributed to failure of some irrigation projects. (Deb and Datta Ray, 2006). Difficult terrain structures, prevalence of traditional crop cultivation system which is jhum cultivation, uncertainty in rainfall, lack of irrigation facilities, lack of infrastructural facilities, extreme variation in agro climatic conditions in different locations are assumed to be mainly responsible for high variability in agricultural production in the state. The inaccessible areas are, lack of proper communication, geographical isolation, lack of infrastructural facilities as well as the shortage of trained manpower have resulted in low agricultural productivity of the region to Shifting cultivation resulting heavy soil and land degradation, unavailability and spread of (High Yielding Variety) HYV seeds, low consumption of chemical fertilizers, poor crop management practices (Singh and Munde, 2008) are other reasons put forward for low productivity in agriculture.

The industrial growth in Manipur during the span of 25 years was in very poor and during 1992 to 1995 there were negative growth rate of -12.5% and during 2008 to 2014 there was negative growth rate of -1.6%. The impact of Industrial Policy 1990 in Manipur was very limited and was not a successful one according to Commerce and Industries department, Government of Manipur (2010). The reasons behind the failure are listed as follows: (i) not creating an integrated investor – friendly environment for economic/industrial activity (ii) not able to secure the location and establishment of any Central Public Sector Undertaking which can, catalyse ancillary units (iii) not competed successfully with the subsidy / incentive regime of more advantageous States (iv) not responded effectively to the need for basic infrastructure facilities both physical (power, communication, water etc.) and financial (credit linkage / support) (v) not ensured optimal development of entrepreneurial skills and utilisation of human resource capital. (vi) not fully utilised the natural resources / potential / advantage (climate, agro – base,

minerals, etc.) of the State (vii) not maximised the exploitation of the potential and benefit inherent in Indo-Myanmar Border Trade and (viii) not enhanced product competitiveness in the domestic/ regional/ neighbouring market. The main reason behind the fall of industrial growth during 1992-95 could be because of the failure of the Industrial policy 1990. Therefore, Industrial Policy of Manipur 1996 was implemented by the Government of Manipur and corrected some ill measures which had negative impact on industrial growth. The result was quite successful as industrial sector grew at a rate of 9.3% from 1996 to 2007.

Another reason which could have attributed to the poor performance in Manipur industrial sector is because of under performance by the manufacturing sector. The industrial sector had low growth during 1996- 2007, however according to Manipur Planning Department the growth largely came from the government expenditure to the construction sector. The manufacturing sector in the state were more of self employed and small industries labour intensive using less capital. One of the major impediments to its growth was the lack of supply of raw material which was primarily sourced from the mainland states of India. Any discrepancy between the insurgents of Nagaland and Government of India leads to block of connecting highway by the Nagas. This highway being the lifeline for the people in Manipur leads to the problem of supply and hence effect economic activity. This led to local people demanding more of imported products and less of local made products. (Planning of Manipur, GOI, 2010)

Service sector in Manipur had a moderate growth rate for the span of 20 years i.e. since 1991 to 2002 at 4.3% and 2003 to 2010 at 5.7%, however of late it grew at 10.7%. The service sector had two digit growth for the period of 2011 to 2014 and this was due to rise in the public sector expenditure from the North East development fund according to Economic survey Manipur. (Economic Survey of Manipur, 2016)

In Manipur December 1993 President's rule was imposed and it lasted for almost a year due to communal disturbances. The state had clashes in between two tribes viz. Kuki and Naga and lost around 1000 lives during the clash. Year 2001 witnessed president rule for political reasons. These incidents have significant impact on regional economy.

Table 3.12: Structural breaks and growth rates of NER states (1991-92 to 2014-15)

Sector	**Agriculture**		**Industry**		**Service**		**N.S.D.P**	
States	**Years**		**Years**		**Years**		**Years**	
	+ve	**-ve**	**+ve**	**-ve**	**+ve**	**-ve**	**+ve**	**-ve**
Arunachal Pradesh	**1992-97, (2.2)** 1998-14 (2.9)		1992-14, (8.7)		1992-97, (4.9) 1998-09, (6.5) 2010- 14 (2.3)		1992-96, (6.7) 1997-14 (6.4)	
Assam	1992-97, (0.9) 2003-09, (2.7) 2010-15 (2.4)	1998-02 (-1.5)	1992-00, (1.5) 2001-05, (13.8) 2006-15 (3.5)		1992-97, (4.2) 1998-09, (6.3) 2010-15 (6.1)		1992-02, (2.0) 2003-09, (4.4) 2010-15 (4.6)	
Manipur	1992-14 (3.7)		1996-07, (9.3)	1992-95 (-12.1) **2008-14 (-1.6)**	1992-02, (4.9) 2003-10, (5.7) 2011-14 (10.7)		1992-14 (4.8)	
Meghalaya	1992-98, (6.1) 1999-15, (9.1)		1992-08, (5.8) 2009-15 (8.7)		**1992-95, (1.8),** 1996-08 (6.4), 2009-15 (8.11)		**1992-94, (0.07)** 1995-02, (7.5) 2003-15 (7.6)	
Nagaland	1994-00, (8.0) 2001-05, (10.0) 2006-15 (4.5)		1994-98, (21) 1999-10, (10.6) 2011-15 (9.3)		1994-99, (3.2) 2000-15 (8.7)		1994-97, (7.07) 2001-06, (8.6) 2007-15 (6.9)	1998-00 (-2.1)
Sikkim	1994-98, (3.7) 1999-03, (5.6)		1994-00, (6.3) 2001-09, (10.5)		1994-14 (7.7)		1994-99, (6.4) 2000-09, (7.6)	

	2004-11, (4.3) 2012-14 (2.7)		2010-14. (12.05)				2010-14 (9.2)	
Tripura	1992-07, (3.7) 2008-14 (5.9)		1992-95, (6.2) 1996-00, (19.6) 2001-14 (8.2)		1992-97, (7.6) 1998-07, (6.9) 2008-14 (11.1)		1992-96, (5.04) 1997-14 (8.12)	
Mizoram*	2000-14 (4.7)		2000-14 (8.0)		2000-14 (8.6)		2000-14 (7.7)	

Bold denotes not significant at 5% level of significance * Mizoram doesn't have data prior to 1999. Structural breaks could not be calculated for Mizoram. What has been presented is the growth rate of Mizoram over the entire period 1999-2000 to 2013-14.
Source: Author's calculation

Table 3.13 below shows only the structural breaks as was pointed out in the earlier table 3.12.

Table 3.13: Sector-wise structural Breaks for the States

States/ Sectors	Agriculture	Industry	Service	NSDP
Arunachal Pradesh	1998	No breaks	1998, 2010	1997
Assam	1998, 2003, 2010	2001,2006	1998, 2010	2003, 2010
Manipur	No breaks	1996, 2008	2003, 2011	No breaks
Meghalaya	1999	2009	1996, 2009	1995, 2003
Nagaland	2001, 2006	1999, 2011	2000	1998, 2001, 2007
Sikkim	1999, 2004, 2012	2001, 2010	No breaks	2000, 2010
Tripura	2008	1996, 2001	1998, 2008	1997
Mizoram	No breaks	No breaks	No breaks	No breaks

Source: Author's calculation

Meghalaya

Meghalaya's agriculture was good on performance especially during 1999-2015 with 9.1% growth rate. However during the 1990s the production of agriculture in the state was considered to be low. According to Planning commission (2002, GOI) region specific decelerating growth in agriculture was due to poor maintenance of rural infrastructure, low public investment in irrigation, decline in investment in rural electrification and its availability. Rising level of subsidies for power, water, fertilizers and food are eating into public sector investments in agriculture. Inadequate credit facilities, stringent controls on movement, marketing, credit, stock and export of agricultural products and agro-processing industry are some of the factors. The agricultural output such as foodgrains declined in terms of per capita availability as stated by Meghalaya state development report. However during the early 2000s there were initiatives to curb the shortfall by using HYV seeds, improving irrigation facilities, application of pest control and fertilizers etc.

Industrial growth rate in Meghalaya during 1991 to 2008 was around 5.8% which is not a remarkable performance. Majority of the population is involved in the unorganized sector of the industry. Hence small scale industries play an important role in providing employment opportunities. Most of the small scale enterprises are located in rurals and face the problem of transportation (Meghalaya state development report, 2009). According to Small Industries Service Institute (SISI) (2001), since early nineties a large number of small scale units have fallen sick due to lack of financial assistance from Banks and Financial Institutions and also partly due to dearth of market for locally produced SSI products in the face of stiff competition from the branded products coming from outside the region. Another major factor is shortage of power and basic raw materials. However during 2009 to 2015 there was increase in growth and the reason being implementation of North East Industrial & Investment Promotion Policy (NEIIPP), since 2007. According to Meghalaya state development report, (2009) because of NEIIPP the state has received large investment which made a high yielding and growth possible. The state has been declared a comprehensive IT policy, Tourism Policy and Power policy offering opportunities for new business ventures. Even the

service sectors benefitted because of the NEIIPP as it had developed not only industrial sector but related service sectors. The table 3.12 below shows there was also a rise in growth rate of service sector since 2009 to 2015 at 8.11%.

Nagaland

Nagaland had fluctuations in industrial sector with industrial growth rate going up to 21% for the years 1994-1998. The main contribution to the fast growth comes from construction sector and manufacturing sector. According to RBI the construction sector grew at almost 29% during 1994-1998 and manufacturing sector grew at 27.5% during this time. However times when the fluctuations were observed, as there were growth rate was 9.3 % in industrial sector because of drastic fall in manufacturing sector. Medium industries like Sugar Mill at Dimapur and Paper Mill at Tuli became non-functional in the State during nineteen nineties that led to fall in overall growth. Besides, the earnest efforts of the government to extend a number of facilities to the intending industries and entrepreneurs, have failed to maintain an increasing rate of growth (NSDHR, 2004). The industrial sector was growing at an impressive growth even after decline in manufacturing sector because of positive effect from the implementation of NEIIPP as well as the continuous public spending by the government.

The service sector in the state performed satisfactory with growth rate of 8.7% during 2000-2015 due to rise in the public spending on infrastructures and social services. During early 2000s there was significant impact of the public spending which lead to the service sector growth. (Statistical Handbook of Nagaland, 2008)

Sikkim

Sikkim is a state where its agriculture sector highly depends on monsoon. Sikkim had three structural breaks in agriculture and the reason for structural breaks are as diverse as rainfall and climatic changes adoption of new techniques of farming such as organic farming. The state was declared as an organic state in 2003 thus adopting broad changes in techniques in production. During the time of late 1990s to early 2000, the agricultural production declined due to adverse climatic changes i.e. warmer and dry winters.(Sikkim State Action Plan Report, 2015)

Sikkim's NSDP growth performance was much better when compared to agriculture sector. NER states are mostly agriculture dependent and if the growth of the agriculture is slow it is likely that the growth of the overall NSDP will be also low. However in Sikkim because of good performance in growth from the industrial sectors, accelerated the NSDP growth rate during the period 1992-2015. The performance of industrial sector post year 2000 can be attributed to The Sikkim Industrial Promotion and Incentive Act, 2000. This act makes provision for providing incentives for setting up tiny, small, medium and large scale industries in the State. Since majority of the industrial sectors were unorganized and small scales units the effectiveness could be positive in terms of output and employment. There were issues in industrial development prior to 2000s in the region, such as physical remoteness, difficult terrain, lack of raw materials, markets and high transport cost (Lahiri et.al, 2001).

According to Chakrabarti (2009) the growth rate in services for Sikkim had been showing a healthy trend since early 1990s, because of high government expenditure on public administration and other services. However in the late 2000s the growth rate of tourism, banking and finance and transport and communications has contributed significantly. The uninterrupted growth in service sector in the state is the result of growth of all sub sectors.

Tripura

Agriculture sector growth performance was during the span of 25 years. The low volume of marketable surplus and lack of assured supply of high value products throughout the year, are the reasons put forward and there were constraints in the development of desired market dynamics in the region (Tripathi et al., 2007). According to Department of Agriculture, Government of Tripura during 1999-2000 to 2004-05 the annual growth of rice production was only 2.1% and yield growth was very low at 0.4%. Even taking a longer time horizon the growth performance of the rice and food grains has not been satisfactory. The reason being not just constrained by the terrain but by the lack of development of irrigation, limited use of modern inputs, inadequate access to agricultural extension and markets.

Tripura's industrial sector has been low and it contributed only 2.12% of GSDP during 2000-01 according the Tripura State report. Most of the industrial growth takes place in SSI sector and a majority of SSI units are located in the capital district of West Tripura, followed by North Tripura District. The SSI sector is resource based engaged mostly in tea processing, fruit processing, saw mills, bamboo based units and rubber based industries, etc. During 1996 to 2000 the industrial CAGR was 19.6% and the reason for such high growth performance could be the impact of the implementation of the North East Industrial Policy, 1997.

There was high CAGR of 11.1% in service sector too during 2008 to 2014 in Tripura and from the state report it was found that the government expenditure on community services increased. The state government has been releasing large amount of funds since 1996 for payment of wages to the MGNREGA job card holders, financial supports for the Self Help Groups, rural housing etc. (Government of Tripura, 2015)

Mizoram

Mizoram's data were not available prior to 1999-2000 which led the author to use only for 15 years information. No structural breaks were found in any of the sector of the state. Between 55% to 60% of the working population is dependent on agriculture (State Agriculture Plan, Government of Mizoram, 2013). The biggest contributors to state's GSDP growth are Agriculture, Public Administration and Construction work. Contribution of tertiary sector or service sector to the GSDP continued to hover between 58 percent and 60 percent during the past decade. (IBEF, 2015)

NER: Impact factors

The Central Ministry of agriculture has implemented wide range of programmes starting from 1998. Macro Management of Agriculture Scheme (2000-01), Technology Mission for Integrated Development of Horticulture (2003-04), National Project on Organic Farming (2004), Rashtriya Krishi Vikas Yojna (2007), National Project on Management of Soil Health and Fertility (2008-09) are some of the programmes. To deal with matters pertaining to socio-economic development of the NER, a special nodal department, DONER (Department of North Eastern Region) was established and in 1995 for

financing projects related to agriculture and allied services, micro credit scheme for small local entrepreneurs, the North Eastern Development Finance Corporation was established (D'souza and Ray, 2014). Many of these programmes have positive impact on growth and lead to structural breaks post 1998. In states like Arunachal Pradesh, Assam, Meghalaya, Nagaland and Sikkim there were structural breaks post 1998 and are all close to this year specially in agricultural sector (Table 3.12).

The share of industries in NER taken together is lower in each state of the region than the all India share however in case of manufacturing sector the share is even less than half of the all India share which is worse. The surprising thing was, even for Assam, which has a long history of modern manufacturing the share was below 10% in 1999-2000 - much less than 14.78% which is the share for the country as a whole. The relatively small share of manufacturing sector in the NSDP of the region indicates that the region has not made much progress in industrialisation during the post-independence period or even during post-reform period. (Sarma and Bezbaruah, 2009).

North East Industrial and Investment Promotion Policy (NEIIPP) was launched in 2007 which covered the States of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. For North Eastern Region incentives are made available to all industrial units, new as well as existing units for their substantial expansion. It includes excise duty exemption, incentives for substantial expansion, 100% income tax exemption, interest subsidy and comprehensive insurance scheme. The structural breaks after 2007 especially in industrial sectors of the North eastern states could be attributed to the initiation of this policy. There are four states viz. Manipur, Meghalaya, Nagaland and Sikkim which shows structural break after 2007 and seem to have benefitted from this policy change.

North Eastern region of India has often experienced social as well as political unrest. The states often have tribal clashes or political disputes among the regional parties or with the central government. Since their statehood almost all the states of North East India had experienced President's rule due to social unrest, political disputes or other situation of deteriorating law and order. The duration of the President's rule are substantially long and it lasted sometimes to more than a year thus disrupted the functioning and smooth

carrying out of the economic activities. Meghalaya, Nagaland and Assam are the states which witnessed imposition of presidents rule for various reasons, political and social. Frequent change in government also takes toll on the states concerned. The disruption or the instability could have led to breaks in NSDP during 2003. The political volatility takes a heavy toll on economic activities as these states are socially divided on tribal lines.

3.5 Summary & Conclusion:

The chapter gives an overview of the history of the NER states and how it became a part of India, along with current geo-political scenario with the neighbouring countries. The issue of backwardness and the development challenges have also been touched upon along with facts. The most important problem of NER is the access and connectivity to the greater India. The transportation system is lagging behind since ages and these states are still facing enormous challenges to develop and make people's life easy. Not surprisingly the region lags behind many indicators such as per capita income, basic amenities and services, infrastructure and governance etc.(NER vision 2020). One of the example is Arunachal Pradesh, the biggest state of NER has the least road connectivity. Even in terms of poverty faced by the states, there are three states viz. Arunachal Pradesh, Assam and Manipur which falls in ranking above 'All India' average during the 2011-12. (Tendulkar report)

The natural resources in the region are considered to be of high potential for the development of the region. Especially, the electricity that can be generated from the region have very high potential. A World Bank study in 2007 had estimated that in Brahmaputra-Barak river systems have the potential to provide upto 30% of the total power of the country. Forest is also one of the major natural resource for the region.

The NER states had special privilege of getting a special category status due to which it receives financial assistance from the Central government for the development of the region. NITI Aayog has modified the formula for assistance of such kind. It is unfortunate for the NER in the development perspective that this formula is unfavourable.

The discussion on India's Act East policy and the benefits that can accrue to NER states have been discussed. According to Sarma (2013) market integration of NER states with the neighbouring countries have great potential to boost trade and thus development.

The chapter also analyses the economic growth and structural changes in NER states. Using Bai-Perron test, it has been found that the overall growth of each states as well as sector-wise performance were not homogenous in nature. There were vast difference among the states in terms of industrial growth rates, some cases like Tripura (during 1996-2000) and Nagaland (during 1994-98) having CAGR of 19.6 % and 21% respectively, whereas in states like Assam (during 1992-2000) and Meghalaya (1992 to 2008) the growth performance of the industrial sector were not remarkable with 1.5% and 5.8% respectively. Each state has different government policies which could also implicate such differences. The agriculture sector as well as service sectors were even influenced by array of policy changes by central government and climate factors.

Government of India had initiated many projects especially for the development of the NER states. However the implementation has not been very successful in these areas. The main reason for backwardness in the region are not only the underdevelopment of infrastructure, connectivity and lack of integrated markets but also problems of political disputes and unresolved issues between the region and the centre in addition to the problem of insurgencies. These factors have impact on investment climate and effective governance.