UG S1 06
(IDC)

FOUR YEAR BACHELOR'S DEGREE COURSE

(CBCS and in accordance with NEP 2020)

SEMESTER-1

ECONOMY OF NORTH EAST INDIA

Surya Kumar Bhuyan School of Social Science
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COURSE INTRODUCTION

This course introduces you to the different aspects of the economy of the north east region (NER) of India. The eight states of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura comprise the North East Region (NER) of India. The region is surrounded by Tibet, Bhutan, Nepal, Bangladesh and Myanmar on all sides except a narrow corridor which connects the region with other parts of India. The region is one of the most bio diverse regions in the world with a forest cover of over 65 percent. The North East region is well endowed with natural resources, like oil and gas, horticultural resources, mineral deposits, immense hydro electric potential and significant forest resources. However, despite the abundance of resources, the region has lagged behind many other Indian States. The irony is that no other region in India can outperform the NER in terms of availability of natural resources. In terms of location also, North East India can be developed as a base for India's growing economic links, not only with Southeast Asia but also with Bangladesh and China. The Indian government has been trying to bridge the isolation, both economic and political, through the Act East Policy (AEP), which supersedes the earlier Look East Policy (LEP). The NER Vision 2020 Document incorporates the principles of participatory planning. The Document looks into the challenges facing the region and studies the developmental aspirations of the people to identify as clearly as possible the felt needs of the people.

The Course has 11 units Unit 1 deals with the introductory concept of the eight states constituting the North East Region. This unit deals with the basic characteristics of the economy of North East India. Unit 2 discusses the natural and human resources of the eight state of NER. Based on Census 2011, the different aspects of population in NER are studied in this unit. Unit 3 studies the different economic problems facing the NER, like poverty, unemployment, low capital formation, etc. Unit 4 explains in details the state domestic product of the different states in NER. Per capita income of different states along with the contribution of each sector to state income is who discussed here. The different aspects of agriculture in NER are discussed in Unit 5. Concepts like cropping pattern, agricultural production and productivity are explained here. Unit 6 studies the importance of the North East Council in the development of NER. Unit 7 discussed the different aspects of shifting cultivation in NER. Different aspects like why there is shifting cultivation in NER, the effects of shifting cultivation, whether there is an alternative to shifting cultivation are discussed here. The present state of infrastructure development in NER is explained in Unit 8. The different infrastructure facilities available and the constraints to infrastructure development are discussed in this unit. Unit 9 is on industrialization in north east India. The roll of both organized and unorganized sectors are discussed here. Unit 10 discusses the prospects of border trade in NER. As the north east part of India is strategically located, the region can benefit from trade in a number of ways. The Look East Policy and the Act East Policy of the Government of India are discussed in details here. The status of Banking and Financial Inclusion in NER is explained in Unit 11. The status of banking services in NER is also explained along with the role of Regional Rural Banks.

While going through a unit, you will notice some along-side boxes, which have been included to help you to know some of the difficult, unseen terms. Again, we have included some relevant concepts in "LET US KNOW" along with the text. And, at the end of each section, you will get "CHECK YOUR PROGRESS" questions. These have been designed to self-check your progress of study. It will be better if you solve the problems put in these boxes immediately after you go through the sections of the units and then match your answers with "ANSWERS TO CHECK YOUR PROGRESS" given at the end of each unit.

UNIT 1 : NORTH EAST AS A REGION

UNIT STRUCTURE

1.1 Learning Objectives
1.2 Introduction
1.3 Concept of India's North East as a Region
1.4 Basic Features of the Regional Economy of North East
1.5 Let Us Sum Up
1.6 Further Reading
1.7 Answers to Check Your Progress
1.8 Model Questions

1.1 LEARNING OBJECTIVES

After going through this unit, you will be able to :

- conceptualise the North Eastern states of India as a Region,
- acquire a brief overview on the basic socio-economic features of the North-Eastern region of India.

1.2 INTRODUCTION

The North-Eastern region of the country has remained relatively backward. Even when the seven states have traditionally been termed as 'Seven Sisters', (with the inclusion of Sikkim, now there are eight states) yet significant differences lie among them. This unit will help you in conceptualising these states of India as a Region. Apart from this, after going through this unit, you will be able to acquire a brief overview on the basic economic features of the North-Eastern region of India.

1.3 CONCEPT OF INDIA'S NORTH-EAST AS A REGION

In 1947 Indian independence and partition made the NER a landlocked region, exacerbating the isolation that is being recognized lately. The North Eastern states, having a comparatively small electorate are

allotted just 25 out of a total of 543 seats in the Lok Sabha constituting 4.6% of the total number of seats.

The states of the NE region are officially recognized as ***special category*** states. To facilitate rapid development and implement the planned development programmes in these North Eastern states, the North East Council (NEC) was constituted in 1971 as the nodal agency of Government of India for the socio-economic development of the seven states of the region. Later, in 1982, Sikkim was also included as the eight member state of the NEC. Similar to the setting up of the NEC, the North Eastern Development Finance Corporation Ltd (NEDFI) was established on August 9, 1995 and the Ministry of Development of North Eastern Region (DONER) was set up in September 2001, to give a big boost in the process of economic development of this region.

The North East of India constitutes the states of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. The eight states that comprise the region reflect the ecological and cultural contrasts between the hills and the plains. An important issue that affects the economy of the North Eastern states is the different "geography" of different parts of the region and also how the entire region is distinctly separate from the rest of the country. The economy of North East India has got its distinct identity due to its pecuiliar physical, economic and socio-cultural characteristics. This region covers an area of 2.62 lakh sq.km. It accounts for 7.9% of total geographical area of the country. With a population of 39 million (2001), it accounts for only 3.8% of total population of India.



LET US KNOW

All the North Eastern States, Jammu and Kashmir, Himachal Pradesh and Uttarakhand are in the ***special category***. The special category states have some distinct characteristics. They have international boundaries, hilly terrains and have distinctly different socio-economic developmental parameters. These states have

also geographical disadvantages in their effort for infrastructural development. Public expenditure plays a significant role in the Gross State Domestic Product of the states. The states in the North-East are also late starters in development. These states get special treatment from Centre on getting Central assistance in the form of 90 percent grant and 10 percent loans while other states of the country get Central assistance in the form of 30 percent grants only and remaining 70 percent as loans.

About 70 Percent area of the region is hilly, and the ***topography*** varies within each state. Mountains and hills cover most of Arunachal Pradesh, Mizoram, Nagaland, Meghalaya, Sikkim and about half of Tripura, one-fifth of Assam and nine-tenth of Manipur. The plains of the region are mainly made up of separate land masses - the Brahmaputra Valley and the Barak Valley in Assam and the Tripura plains in the South. In Manipur, the valley is small, comprising only about 10 Percent of the total area of the state.

Now, let us consider some ot the basic socio-economic indicators from the Census Report of 2011 relating to the different states of the region.

Table 1.1 : State-wise Selected Socio-Economic Indicators in NE Region of India (2011)

States/	Geogra-phical Area (in thousand	Popu-lation	Density of Popul-	Perce-ntage of Urban population to Total	Perce-ntage of SC/ST to Total	Sex	Liter-acy
Arunachal Pradesh	84	13.82	17	20.41	68.79	920	66.95
Assam	78	311.69	397	12.72	19.60	954	73.18
Manipur	22	27.21	122	23.88	38.90	987	79.85
Meghalaya	22	29.64	132	19.63	86.73	986	75.48
Mizoram	21	10.91	52	49.5	94.54	975	91.58
Nagalamd	17	19.80	119	17.74	86.48	931	80.11
Sikkim	7	6.07	86	11.1	38.43	889	82.20
Tripura	10	36.71	350	17.02	49.59	961	87.75
India	3287	12101.93	382	31.16	24.40	940	74.04

Source : *Census of India, 2011.*

From the above table 1.1, it can be easily seen that in terms of geographical area, Arunachal Pradesh is the largest state (84 thousand sq. km) in the region with the lowest density of population in the country. However, in terms of population, Assam (311.69 lakh) has the largest. Density of population is highest in Assam (397), followed by Tripura (350). The penetration of population in urban areas is highest in Manipur (23.88%). The tribal population constitutes about one-third of the population of the North East, even though tribals are in a majority in four States — Mizoram, Meghalaya, Nagaland and Arunachal Pradesh. In Mizoram, the tribals constitute nearly 95 per cent of the population. Of the eight states, Manipur has the best sex ratio (987). The other states which have higher sex ratio than the national average (940) are Meghalaya (986), Mizoram (975) and Tripura (961). The literacy rate on the other hand is highest in Mizoram, followed by Tripura.

There are differences among the eight States in the North Eastern region with respect to their resource endowments, level of industrialisation as well as infrastructural facilities. The industrial sector has mainly grown around tea, petroleum (crude oil), natural gas, mining etc. in Assam and mining, saw mills and steel fabrication units besides handloom and handicrafts in other parts of the region. Let us consider a few industrial and infrastructural related indicators of the region as has been shown in the following table 1.2.

Table 1.2 : State-wise Selected Economic Indicators in India

States/UTs	Per Capita Gross Output in Industries (Rs.) (P)	Industrial Consuption of Electricity Per Capita (Kwh.) (P) @	Density of Roads (Road Length per 1000 sq. Km of area)**	% of Surfaced Roads to Total Road length
	2000-01	1999-2000	2002	2004
Arunachal Pradesh	N.A.	6.08	219	38.58
Assam	3313	26.58	1,141	11.62
Manipur	74	4.6	512	30.47
Meghalaya	466	49.02	426	68.93
Mizoram	N.A.	1.5	241	56.43
Nagaland	485	15.04	1,268	31.82
Sikkim	N.A.	31.25	285	80.07
Tripura	971	11.51	1,554	38.06
India*	9111	107	776	57.16

(P) : provisional figures, @ : includes self generation of non-utilities.

*** : this Includes roads under P.W.D., Zila Parishad, Municipal Corporation, Municipal Councils, Irrigation Department and Forest Department.*

** : includes Union Territories.*

Source : *www.indiastat.com, Indian States at a Glance, 2008-09.*

From the above table 1.2, it can be seen that the per capita gross industrial output is very low in the region as compared to some of the states of the country as well as the national average. This figure is as low as Rs. 74/- (in Manipur) as compared to Rs.3313/- in case of Assam. Thus, Assam is the most industrialized state in the region. Per capita industrial consumption of electricity (as in 1999-2000) is also significantly low in all the states of the region as compared to the other selected states and the national average. It is lowest in Mizoram (1.5 kilowatt hours). Density of roads of a state is also one of the major indicators of physical infrastructure. Only in three states of the region, the density of roads is above the national average. In other five states, it is below the national average. The better indicator relating to road connectivity is however the percentage of surface roads to total road length. Availability of surface roads indicate the connectivity through roads across all seasons. It is interesting to note that in all the three states, viz., Assam, Nagaland and Tripura, where the density of roads is above the national average, are having percentage of surface roads less than the national average. This indicates that the road connectivity in these states is actually not better, as it seems to be, when the density of roads is alone considered. Meghalaya is having higher percentage of surfaced roads. Another important issue in this case is the quality of surface roads. It is generally reported that the quality of surface roads in this region is inferior to the industrially developed states of the country.



CHECK YOUR PROGRESS

Q 1: State whether the following statements are True (T) or False (F)

a) Sikkim was one of the founder members of NEC. (T/F)

b) Manipur has the highest plain area in the NE region. (T/F)

c) The component of grant in Central development assistance to the NE region is 90%. (T/F)

d) Arunachal Pradesh has the highest density of population in the country. (T/F)

Q 2. Make a brief outline on the density of population in the states of the region. (Answer in about 60 words)

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1.4 BASIC FEATURES OF THE REGIONAL ECONOMY OF NORTH-EAST

- **Slow growth rate of State Domestic Product :** The growth rates of Net State Domestic Product of various states of the NE region are very low. Again, the growth rates of NSDP vary to a great extent among the states of the region. Let us consider the following table.

Table 1.3: State-wise Growth Rates of Net State Domestic Product (at 2004-05 prices. percentage growth over previous year)

States	2005-06	2008-09	2011-12	2013-14
Arunachal Pradesh	7.87	17.87	15.33	13.96
Assam	11.15	14.65	11.43	15.89
Manipur	11.62	9.33	21.52	NA
Meghalaya	10.52	19.98	17.83	15.15
Nagaland	12.82	17.48	17.86	13.07
Sikkim	14.69	30.72	20.99	18.08
Tripura	10.65	15.74	18.81	NA
India	**14.15**	**15.64**	**15.77**	**11.07**

Source: *NEDFi Databank*

The above table 1.3 shows the state-wise growth rates (over the previous year) of Net State Domestic Product (NSDP) measured at the constant price level of 2004-05 for the North-Eastern states and all India. Please note that figures of 2013-14 year for Manipur and Tripura are not available. From the table, we can deduce that on an overall, the growth rates of NSDP in the concerned years have been satisfactory and it is fluctutating over the years and is different from state to state. In some of the cases, it is above the national average for that year which is of course a good sign.

- **Lower Per Capita Income :** The growth rate of per capita income (PCI) can be an indicator of the status of overall growth of the region and economic status of the people. If we look through the per capita income of different states of NER, we must admit that, the growth rate of per capita income is slow over the years. But in the recent years, the condition has improved a bit and some of the states are doing well by keeping their PCI at par or above the national level. The following table can make it clear.

Table 1.4 :State-wise Growth Rate of Per Capita Income of the NE States

(at 2004-05 prices in India, % Growth Over Previous Year.)

States/UTs	2005 - 06	2008 - 09	2011 - 12	2013 - 14
Arunachal Pradesh	0.56	5.75	2.21	5.36
Assam	1.6	4.61	3.74	4.63
Manipur	4.5	5.11	7.53	NA
Meghalaya	6.46	11.52	–3.4	10.1
Nagaland	8.65	4.62	5.34	3.85
Sikkim	8.68	11.57	11.44	6.5
Tripura	5.3	9.35	7.25	NA
India	**7.75**	**4.69**	**5.1**	**2.7**

Source : *NEDFi Databank*

The above table 1.4 shows that the growth rate of per capita income (measure in percentage over the previous year) in the states of the region is fluctuating ove the years. On an average, Nagaland, Sikkim and Tripura are performing well compared to the national average of the respective year. Meghalaya is also doing well except the year 2011-12. The condition of Assam is not good in this case. However, the table shows a better picture than the earlier decade's data.

- **Role of the Agricultural Sector :** The NER is a net importer of food grains even for its own consumption. In spite of covering 7.9% of the country's total geographical area, NER produces only 1.5% of the country's total food grain production. Agriculture provides livelihood support to 70 % of the population of NER. Out of the all India food grain production the NER produces only 4% of it. But even then, agriculture still dominates the State Domestic Product (SDP) in most of the states of the region. Let us consider the following table 1.5. From the above table 1.5, it can be seen that agriculture still dominates the economies of the states of the region. Assam, which is considered to be the most advanced state in the region still rely heavily on agriculture. While this sector contributed to the tune of 26.77 percent to the Net State Domestic Product (NSDP) of the state (measured in terms of Factor Cost by industry of origin at constant prices of 2004-05) in 2004-05, it declined to 18.920 percent in 2013-14. However, the contribution of the agriculture and allied sectors has shown decline over the years in the states, except Nagaland. In Nagaland, the share of agriculture and allied sectors in its NSDP has actually shown an increase. However, the contribution of the industrial sector has shown an increase in most of the states of the region. Except Assam and Manipur significant increases of this sector have been recorded in Sikkim. The tertiary sector on the other hand has Increased in all states of the region except Sikkim.
- **Role of the Industrial Sector :** The industries of this region can be broadly classified into four heads. They are (a) agro-based industry, (b) mineral-based industry, (c) forest-based industry and (d) other industries.

The agro-based industries of the region include tea industry, sugar industry, grain mill products industry (rice, oil and flour mills), food processing industry and the textile industry.

Mineral-based industries of the north eastern region include petroleum and natural gas, cement, coke etc. Other industries include railway workshops, engineering industry, and re-Rolling Mills, steelworks, motor-vehicle workshops, galvanised wire units, cycle factories, aluminium utensils industry, cycle spare parts, steel wire net, barbed wire, power generation industry, fertiliser industry, printing press, brick and tiles industry, ice industry, chemical industry etc.

Forest-based industries of the region include the plywood industry,

Table 1.5: Contribution of Primary, Secondary and Tertiary Sectors to the NSDPs of the North Eastern States of India

States	Contribution of the Primary Sector to Net State Domestic Product at Factor Cost (at constant prices of 2004-2005) in %		Contribution of the Secondary sector to Net State Domestic Product at Factor Cost (at constant prices of 2004-2005) in %		Contribution of the Tertiary sector to Net State Domestic Product at Factor Cost (at constant price of 2004-2005) in %	
	2004-2005	2013-14	2004-2005	2013-14	2004-2005	2013-14
Arunachal Pradesh	37.22	29.05	29.92	31.80	32.85	39.15
Assam	26.77	18.92	25.34	18.92	47.89	58.69
Manipur	25.09	20.07	36.86	27.18	38.05	52.75
Meghalaya	24.46	14.98	24.75	29.55	50.80	55.47
Mizoram	24.55	20.32	15.20	14.92	60.26	64.72
Nagaland	25.09	36.86	04.10	23.02	38.05	55.67
Sikkim	18.76	10.37	28.54	60.04	52.70	29.60
Tripura	26.08	22.69	22.69	23.80	51.23	56.09

Source : Basic statistics of North Eastern Region, 2015

Note : Primary sector includes Agriculture and allied sectors viz,, Forestry & Lodging and Fishing. Secondary sector includes: Mining & quarrying, Manufacturing (registered and unregistered), Construction and Electricity, Gas and supply. Tertiary sector includes all services like health, education, social welfare, public administration, banking, Transport , storage and communication, railways, trade, hotel, restaurants, insurance real estate, ownership of dwellings, other services saw-mill industry,

paper and paper pulp industry, match industry, hard board industry etc.

Assam is by far the most industrialised state among the eight states of the region. At one point of time, Assam accounted for about 50% of the total crude oil production of the country. However, the present contribution to this industry has come down due to discovery of crude oil in other parts of the country. The state also produced 52 percent of tea and about 55 percent of plywood production in the country. Among these two industries, while it still plays a major role in the production of tea, its contribution to the plywood industry has virtually become nil after the Supreme Court of India banned on commercial felling of trees in 1999. Apart from these, the notable addition to the industrial sector has been the setting up of the fibre blended polyester yarn mills based on polyester fibre produced in the Bongaigaon Refinery and Petroleum unit, Printing Presses, Tyre rethreading units, Saw Mills and many Steel Fabricating units dominate the industrial scenario. Assam has 69.8% out of 47,654 numbers of permanently registered SSI units in the NE Region.

Industrial units in Arunachal Pradesh are mostly wood based and some agro-based units as well such as rice dehusking mills. Traditional crafts like carpet weaving, woven textiles and woven crafts also comprise an important industrial segment in the SSI sector of Arunachal Pradesh.

Many industries in Manipur are state-owned. They are set up to cater to the local market. The opening up of the Myanmar border for external trade presents a scope for the existing industrial units as well as for establishment of new and export oriented units. The whole of the North Eastern states particularly, Manipur is also famous for its Handloom and Handicraft products.

Like most other NE states, Meghalaya is dependent on wood and wood-based industries to a large extent. The mining sector also contributes significantly to its SDP. Most of the private entrepreneurs, who have coal and limestone deposits in their land holdings, extract the minerals and send it to Assam and Bangladesh for sale. Thus, in the absence of downstream industries in Meghalaya little value-addition takes place with the state.

In Mizoram, most of the units belong to the small and tiny sector. The state industrial development corporation and directorate of industries have identified handicrafts and handlooms as the thrust sector for industrial

growth in the state.

Wood and wood-based industries comprise the main industrial segment of Nagaland. Apart from this, the other major industry in Nagaland is food-based products and the handloom and weaving of Naga shawls and clothes.

In case of Tripura, the West Tripura district is more industrialised. It has 81.30% of the total industries in the state. Cane and bamboo products are exquisitely crafted and are highly acclaimed both in India and overseas. A large number of small scale industries in Tripura that have local demand are aluminium items and the brick industry.

Distilling, tanning and watch making are the main industries located in the southern regions of Sikkim. A small mining industry exits in the state, extracting minerals such as copper, dolomite, tale, graphite, quartzite, cool, zinc and lead. The growth and number of functioning large and medium industries in the NER has been negligible.

- **Role of Small Scale and Indigenous Khadi and Village Industries :** Results of the third Census of SSI units reveal that while 3.11% of the total number of working people were employed in the SSI sector of the NER, percentage of output in NER is not in tune with the number of units and the number of persons employed. The survey also revealed there has been gradual change in the small industry scenario in the North East. Food products have come to the forefront, accounting for 27% of the total small scale industries. The region is a trader's paradise having full control over the market. There are several organisations to provide marketing support to the SSI units. The NSIC is known for its marketing support programme to the small scale units. Besides the NSIC, SISI registers SSI units under its sub-contract exchange programme to provide marketing support. The NERAMAC is another organisation to provide marketing support to tiny and SSI units.

  For providing employment opportunities in rural areas and thereby strengthening the rural economy, KVIs (Khadi and Village Industries) have a major role to play. In order to ensure better implementation and monitoring of KVI programmes in the NER, a zonal office of KVIC has

also been set up in Guwahati. According to the Draft Report of the Task force on Development Initiatives for the NER, in 2003-04, the number of people employed in the KVIs was 3.09 lakhs in the North-Eastern region of India.

- **Unemployment as a Major Problem :** The unemployment rate of the North-eastern region represents one of the highest rates of unemployment in the country, with an unemployment rate close to 12%, against the national average of 7.7% (1999-2000). Creation of employment in public organizations has already reached the saturation point. Jobs created in slow growing private industrial and service sector are inadequate to meet the demand for jobs due to slow rate of industrialization in the region and as a result the problem of unemployment has risen in all the states of the North-East region.

CHECK YOUR PROGRESS



Q3. State whether the following statements are True (T) or False (F)

(a) The NER produces surplus of food grain than its demand. (T/F)

(b) Assam is the most industrialized state in the NE region. (T/F)

Q4. Choose the correct alternative.

(a) During the year 2006-07, in which state of the region, the contribution of the tertiary sector was highest? (Arunachal Pradesh / Assam / Mizoram)

(b) In comparison to 1999-2000, in which state of the region the contribution of the secondary sector has seen the maximum growth rate during the year 2006-07? (Arunachal Pradesh / Manipur / Assam)

Q5. Briefly discuss the industrial sector of Arunachal Pradesh. (Answer in about 60 words)

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1.5 LET US SUM UP

- In 1947 Indian independence and partition made the NER a landlocked region, exacerbating the isolation that is being recognized lately.
- About 70 Percent area of the region is hilly, and the ***topography*** varies within each state.
- There are differences among the eight States in the North Eastern region with respect to their resource endowments.
- The NER is a net importer of food grains even for its own consumption.
- Mineral-based industries of the north eastern region include petroleum and natural gas, cement, coke etc.
- Assam is by far the most industrialised state among the eight states of the region.
- The unemployment rate of the North-eastern region represents one of the highest rates of unemployment in the country, with an unemployment rate close to 12%, against the national average of 7.7% (1999-2000).



1.6 FURTHER READING

- P. K. Dhar: *The Economy of Assam (Including Economy of North East India)*, Kalyani Publishers, 18th Edition, 2007.



1.7 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q. No. 1: (a) False (b) False (c) True (d) False

Ans to Q. No. 2: Density of population in the region varies significantly across different states. While Assam has higher density of population (340) than the national average (324), the density of

population of Arunachal Pradesh (13) is one of the lowest in the country. Except Tripura, in all other states of the region, density of population is either just higher than 100 or even below it.

Ans to Q. No.3: (a) False (b) True

Ans to Q. No. 4: (a) Mizoram (b) Arunachal Pradesh

Ans to Q. No. 5: Industrial units in Arunachal Pradesh are mostly wood based and some agro-based units as well such as rice dehusking mills. Traditional crafts like carpet weaving, woven textiles and woven crafts also comprise an important industrial segment in the SSI sector of Arunachal Pradesh.



1.8 MODEL QUESTIONS

Short Questions (Answer each question in about 150 words)

Q.1. Make a brief sketch of the geographical features of the NE region.

Q.2. Briefly discuss any three socio-economic indicators of the region.

Q.3. Prepare a short note on the resource endowments, level of industrialisation and infrastructural facilities in the states of the region.

Q4. Discuss the role of the agricultural sector for the states of the NE region.

Essay-type Questions (Answer each question in about 300-500 words)

Q.1. Discuss the North Eastern states of India as a Region.

Q.2. Elaborate on the basic features of the NE region.

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UNIT 2 : NATURAL AND HUMAN RESOURCES OF NORTH EAST INDIA

UNIT STRUCTURE

2.1 Learning Objectives

2.2 Introduction

2.3 Natural Resources of the Region and their Uses

2.4 Prospects and Challenges in the Utilisation of the Natural Resources

2.5 Human Resources of the North East

2.6 Status of NER in Select Indicators of Human Development

2.7 Let Us Sum Up

2.8 Further Reading

2.9 Answers to Check Your Progress

2.10 Possible Questions

2.1 LEARNING OBJECTIVES

After going through this unit, you will be able to:

- describe the mineral, forest and water resources available in the North East India
- point out the uses of these resources for productive purposes
- draw out the prospects and challenges in utilizing these resources
- state the basic indicators of the human resources of the North East as per 2011 Census and
- outline the status of human development in the North East.

2.2 INTRODUCTION

North East India or simply the North East as usually referred to in India is a region as interesting and varied as India itself. As we have already discussed, this region is comprised of both hilly and plains areas. The pace of development in the hilly areas and plains differ considerably. The valleys are economically active areas of the region, the Brahmaputra

valley being the most active. There are differences among the eight States in the North Eastern region with respect to their resource endowments, level of industrialization as well as infrastructural facilities. The industrial sector has mainly grown around tea, petroleum (crude), natural gas etc. in Assam and mining, saw mills and steel fabrication units in other parts of the region. The economy of the region is still primarily agrarian but its full potential is yet to be exploited. Since agriculture and industry have not really taken off in spite of the potential in the form of vast unexploited resource base available in the region, the pressure for employment is on the service sector. The contribution of agriculture to State domestic income is much higher in this region, except for Meghalaya and Nagaland. Mining in case of Meghalaya and forestry and logging in case of Arunachal Pradesh and Nagaland are important contributors to Net State Domestic Product (NSDP). The contribution of construction is also high in this region.

We have already seen in the earlier unit that the regional economy of North East is generally characterized by low per-capita income, low capital formation, inadequate infrastructure facilities, geographical isolation and communication bottleneck.

In this unit, the first section discusses the natural resource endowment of the region. Wherever possible, the individual state based information will be provided. The present use of the available resources, namely, minerals, forest, and water, will be pointed out while discussing the individual resource. In the next section we shall briefly point out the possibilities of exploiting the available resources in a manner that can usher in far reaching changes to the region and thereby enhance the standard of living of the people and contribute to economic growth of our country. This will be followed by outlining the perceived hurdles in front. In the final section we are discussing the basic characteristics of the population of the North East India as revealed by the 2011 census data.

2.3 NATURAL RESOURCES OF THE NORTH EAST

The natural resources of the region can be broadly categorized as mineral resources, forest resources and water resources.

Mineral Resources : The North Eastern Region (NER) of India is well endowed in respect of its deposit of mineral resources. Available mineral resources in this region include *coal, petroleum crude, natural gas, lime stone, siliminite, dolomite, uranium, china clay, kaolin, fuller's earth, feldspar* etc. Though a huge quantity of coal is available in the NER, coal has high sulphur content and hence is not fit for use in power generation. Among the various states of this region, the maximum amount of coal is produced in Assam and Meghalaya. Besides the substantial reserves of oil and natural gas in Assam, small reserves of petroleum crude is also available in the Changleng district of Arunachal Pradesh and in Baramura area in Tripura. Total current reserve of crude oil in the proven oil fields of NER is estimated at 158 million tones.

NER is well blessed by nature in respect of natural gas too. Natural gas is available in Assam and Tripura. Total reserve of natural gas in the entire region is estimated at about 23,000 million cubic meters. In spite of having a huge quantity of natural gas, the NER could utilize only a very insignificant portion of the same leading to flaring up of huge quantity of natural gas regularly. Digboi Refinery of Indian Oil Corporation (Assam Oil Division) has been using natural gas for over four decades for firing of boilers and later for generation of electric power. Assam Gas Company Ltd. is also supplying natural gas through its pipeline to various tea gardens of Assam for use in tea processing, Numrup Thermal Power Station for power generation, to Brahmaputra Valley Fertilizer Corpn. Ltd. for production of fertilizer, Assam Petrochemicals Ltd, Numrup for production of methanol and to NRL for refining of crude. Gas so produced by ONGCL at Baskandi and Adamitila in Barak Valley is utilized for generating power by private generation Co. (DLF Power Ltd.) and in the tea gardens. Abundant quantity of non-associated natural gas is also available in Tripura. Of this only a small portion, about 25% is utilized for

generation of electricity. ONGCL has a proposal to install a gas turbine power plant of 35 MW installed capacity at Rokhia (Tripura).

In NER, adequate quantity of limestone is available on the basis of which a few cement factories have come up in the region. Sikkim Mining Corporation has been extracting Copper, Zinc and Lead concentrates in minor quantities.

In the following table we are presenting the state wise distribution of mineral resources

Table 2.1 : Mineral Resources of the NE Region

State	Mineral Resources
Arunachal Pradesh	Coal, Limestone, Petroleum, Dolomite
Assam	Coal, Limestone, Petroleum, Granite, Silimanite, Iron ore, Quartzite, Feldsper, Clay, Natural Gas, Oil
Manipur	Chromite, Limestone
Meghalaya	Coal, Limestone, Granite, Sillimanite, Iron ore, Quartzite, Feldsper, Clay
Nagaland	Coal, Limestone, Petroleum, Slate, Marble
Tripura	Kaolin, Iron Ore, Limestone, Coal, Natural Gas
Sikkim	Zinc, Lead, Copper, Dolomite, Coal, Quartzite, Graphics, Talc
Mizoram	Coal, Limestone, Oil, Natural Gas

Forest Resources : North Eastern Region (NER) was very rich in respect of forest resources. Forests once covered about 65.17 per cent of the total geographical area of the NER. But as in 2001, the area covered by forest came down to 1.224 Lakh sq. Km. which is only 46% of the total area. Among the eight States of NER, the concentration of forest is highest in Mizoram with 89% of the area under forest cover. In Assam, the area under forest is nearly 19.30 lakh hectare which is about 25 per cent of the total area of the State. In the other six states, the proportions of areas under forest are quite high with 52 per cent in Nagaland, 61per cent in Arunachal Pradesh, 27 per cent in Manipur, 42 per cent in Meghalaya, 36 per cent in Sikkim and 58 per cent in Tripura. Out of the total forest area of the NER, reserve forests cover only one-third of the forest area. Various

valuable trees like Sal, Teak, Bansom, Simul, Sishu, Gamari, Sarol, Halokh, bamboo, cane, valuable medicinal plants, different species of birds and animals are available in plenty in the forests of NER. As per the available statistics of the recent years, the forests of this region, on an average, provide 8 lakh cubic meter of ordinary timber, 70.5 lakh tonne bamboo, soft wood for the production of 1.6 lakh cubic meter plywood, substantial amount of industrial hard wood, 5.6 lakh cubic meter pulp wood, 12.5 thousand cubic meter of soft wood for the production of match sticks and 2.5 lakh cubic meter of fire wood annually. On the basis of the forest resources of the NER, various types of forest based industries such as ply wood mills, paper mills, saw-mills etc. have been established.

In the interior tribal areas, timber and minor forest produce are the principal source of livelihood. Selling firewood to those requiring the same for cooking purpose augments their meager incomes from other sources. On the other hand, immigrants and the practice of shifting or jhum cultivation have encroached upon forests in many tribal areas. Due to increasing population the jhum cycle has declined. This shows that there has been a net depletion rather than net addition to the area under forests.

The ownership pattern of forests also differs in the different states of the region. In the hilly regions, the ownership rests with the local communities and, therefore, the proportion of reserved forests in those hill states is quite small. In view of the alarming rate of extraction of timber and resulting deforestation in the forests in the North East of India, there has been a blanket ban on logging and non-forest activities in forest land by the Supreme Court of India.

Regeneration of forests in specific areas and planned extension would be needed in states of the North East in order to maintain ecological balance.

Water Resources of NE : North East India is well endowed with rain water, surface water as well as ground water. The Brahmaputra, Barak, Suwansiri and Dihang are among the major river systems of the region. The region receives high rainfall of an average of 2000 mm a year with a maximum of 11000 mm in Cherrapunjee.

Among all the North Eastern states, Assam has the highest groundwater potential. However, of the total ground water potential of the state, only 941 million cubic meters (MCM) of ground water resources has been so far utilized. Besides Assam, the ground water potential of the other states of the region are: Meghalaya – 593.30 MCM, Tripura – 663.74 MCM, Manipur – 3,153.67 MCM, Nagaland – 723.58 MCM and Arunachal Pradesh -2,222.53 MCM. The distribution of water resources potential in the country shows that as against the national per capita annual availability of water as 2208 cubic meter the average availability in North East, because of Brahmaputra and Barak rivers, is as high as 16589 cubic meter. However, this vast water resource remains unutilized and creates problems in the entire region in many ways. Apart from this huge water resources, the Brahmaputra River also carries heavy sediment load of the order of 799 million tones per annum (*fifth severe most* in the world), because of friable nature of the hills in its upstream catchments areas, high intensity of rainfall and seismicity in the region.

At present the available water resources are used for the purpose of drinking water, irrigation, pisciculture, waterways, and to extent for the generation of hydro electricity.



CHECK YOUR PROGRESS

Q1. Name three important mineral resources of the North East.

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Q2. What is the forest cover of Assam?

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Q3. State the average rainfall in North East India.

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Q.4. Choose the correct alternative from within the brackets.

(a) Among the states of the region, (Mizoram/Arunachal Pradesh/ Manipur) has the highest forest cover.

(b) Dolomite is found in (Assam / Manipur/ Nagaland).

2.4 PROSPECTS AND CHALLENGES IN THE UTILISATION OF THE NATURAL RESOURCES

Prospects : The proper utilization of the natural resources offers the following prospects.

- Technologically advanced and financially prudent use of existing resources can generate tremendous growth stimulus in the region. It can also contribute directly to better living standard of the residents. The initiation of Assam Gas Cracker project is a step in right direction.
- There is tremendous scope for developing locally available resource based industries in the region. These industries need not necessarily be large. Even small and medium industries can change the landscape of the region using locally available resources. The setting up of a number of new cement factories in recent years is a pointer to this direction.
- Blessed with plentiful rainfall, the NER forests are a reserve of such commercially useful produce like timber, bamboo, stone, cane, etc. Bamboo is *the best natural engineering material on this planet.* Bamboo can be a substitute for wood, be the timber of the 21st century**.** India's 64% and world's 20% growing stock of bamboo grows in NE India. North East annually harvests bamboo worth of 500 billion rupees. Consumption of wood is rising at 10% per annum in India. As a substitute for wood, it can be extensively used as a material for building, scaffolding and furniture.
- Opportunities based on minerals are Gasification & Liquefaction of Coal, De- Sulphurisation of Coal, Coal based Power Plant, Coal Bed Methane (CBM) Extraction, Exploration of Oil & Natural Gas and HDPE / LLDPE / Polypropylene based industries can be easily established here.
- Given the hilly terrain and numerous rivers, the potential of hydro electricity generation of the region is almost limitless. In fact with full utilization of the potential, the NER can become a power surplus region providing power to neighboring States.

- With its vast hills and forests, NER is the home to a variety of medicinal herbs and plants such as Sarpagandha (rauvolfia serpentine Benth.ex.Kur), Pippali (Piper longam Linn), Amlakhi (Emblica Officinalis Gaertn), Hilikha (Terinalia Chebula Retz.), Bhomora (Terminalia belerica), Arjuna (Terminalia arjuna Wight & Arn.). About 300 types of medicinal herbs and plants are known to exist in abundance in the Brahmaputra valley itself having 150 varieties of herbs and plants of commercial value. It is estimated that only about 5-10% of the plants and herbs are currently utilised and the rest hold a vast potential.
- In the North East, Assam alone has over 600 varieties of Orchids. Around 200 varieties are unique to this region of which 60% are ornamental in nature. The NER also has a vast array of aromatic plants. At present most of the oils extracted are sold in crude form. Some of the plants are Citronella (Cymbopogan flexuosus Steud Wats), Lemon Grass, Patchouli (Pogostemon cabiln Benth.), Agar (Aquilaria agallocha Roxb.), etc. There is scope for setting up small and medium scale industries to produce the finished products locally.
- The rivers of NER boast of myriad of fish species. Many of them are ornamental fishes. Proper culturing of such species can bring in good income for the region.
- To nature lovers all over the world, wildlife enthusiasts, sightseers, ornithologists and photographers, NER is a dream destination. Its natural landscape, lush green forests, wild life sanctuaries, pilgrimage spots and tea gardens offer a wide choice to cater to the tastes of a variety of tourists from the casual sightseer to the adventure tourist. With proper endeavour tourism is poised for a major boom.
- Apart from the above, there are immense opportunities in the following areas:
  - *Accommodation Projects*- For example, setting up of Hotels, Motels, Lodges, Resorts
  - *Food Oriented Projects* – For example, Restaurants, Cafeterias, Wayside Amenities
  - *Service Oriented Projects* – For example, Travel Agencies, Tour Operators, Training Institutes Ropeways, amusement parks.

Challenges : Even when there are very bright prospects, but the following problems are hindering the desired results.

- NER is geologically highly sensitive. A vast area of the region falls under highly active seismic belt. Even a slight disturbance in its delicate balance can spell disaster. Obsession with growth may permanently upset the ecological balance of the region with all its devastating effects. Thus hydrological potential may always remain a potential.
- The pattern of growth and strategy adopted so far appear to be highly insensitive to the ecological balance. Obsession with growth may further do irreparable damage caused by massive deforestation, soil erosion, river siltation and so on. This may bring about permanent climatic change causing disaster to predominantly agricultural community of the region.
- The NER is the home of various heterogeneous and ethnically proud people. Any strategy of development must conform to their tradition and customs. It is not an easy task, given the ethnic diversity of the region.
- Having been geographically isolated and economically neglected from and by the mainstream of the country for decades, the NER has become the fertile ground for militancy and separatism. This vitiates the economic atmosphere and is a big hurdle for private investment.
- For rapid development of the region with the utilization of the locally available resources, huge investment will be necessary. The Government alone can not provide the required capital. There is a dearth of capital and private investment from outside the region is not easily available. The delay in the implementation of the Assam Gas Cracker project highlights this.
- There also appears to be a dearth of entrepreneurial culture among the local residents of the region. Skill formation and capacity building among the local youths has not been at all encouraging. This may turn out to be a stumbling block in taking the region along desired direction economically.



CHECK YOUR PROGRESS

Q5. Write three important prospects of the forest resources of North East.

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Q6. State whether the following statements are True (T) or False (F).

(a) Bamboo is called the best engineering material on this planet. (T/F)

(b) The NE Region produces 20% of bamboo production in the world.

Q7. Why has the region become fertile ground for militancy and separatism? (Answer in about 30 words)

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2.5 HUMAN RESOURCES OF THE NORTH EAST

Size and growth of Population : The NER constitutes 7.9% of national area and about 4% of national population. The total population of the regions stood at 4,54,86,784 as per 2011 census. Assam has the highest population in the region with 3,12,05,576 and Sikkim is the least populated state with 6,10,577 numbers. The following table 2.2 reveals certain important indicators pertaining to the population of the region.

Table 2.2 :Male and Female Distribution of Population in the NE Region

State	Total Population	Male	Female	Sex Ratio
Arunachal Pradesh	1383727	713912	669815	938
Assam	31205576	15939443	15266133	958
Manipur	2570390	1290171	1280219	992
Meghalaya	2966889	1491832	1475057	989
Mizoram	1097206	555339	541867	976

Nagaland	1978502	1024649	953853	931
Sikkim	610577	323070	287507	890
Tripura	3673917	1874376	1799541	960
Total (NER)	45486784	23212792	22273992	——
India	1210193422	623724248	586469174	940

Census of India, 2011

Basic Characteristics of the population of the North East :

Sex ratio : The above table depicting the sex ratio of the population as per 2011 Census shows that in three of the North Eastern states, the sex ratio is below the national average of 940 females per 1000 males. These states are Sikkim, Arunachal Pradesh, and Nagaland. This should be a matter of concern and need to be looked into by social scientists. However, Arunachal Pradesh has almost catched up the national average (938).

Age composition : The age wise distribution of NER population is healthy and encouraging. This indicates that, like the rest of the nation, NER is poised to get the benefit of what is called *demographic dividend*. Barring Arunachal Pradesh and Assam, in all other States the percentage of population in the age group 15-64 is above 60% of the total population. This implies lower dependency ratio which augurs well for the region. Some date regarding the age-composition of population of NER can be seen from the following table 2.3.

Table 2.3 : Age Composition of the Population of the NE Region

State	Total Population	Child Population (age 0-6)	Population belonging to 7 years and above group
Arunachal Pradesh	1383727	212188 (15.3%)	1171539 (84.7%)
Assam	31205576	4638130(14.9%)	26567446 (85.1%)
Manipur	2570390	338254 (13.2%)	2232136 (86.8%)
Meghalaya	2966889	568536 (19.2%)	2398353 (80.8%)
Mizoram	1097206	168531 (15.3%)	928675 (84.7%)
Nagaland	1978502	291071 (14.7%)	1687431 (85.3%)
Sikkim	610577	64111(10.5%)	546466 (89.5%)
Tripura	3673917	458014 (12.5%)	3215903 (87.5%)

Source : Primary Census Abstract: Census of India 2011

Rural-urban ratio : As can be seen in the table below, the NER population is predominantly rural. Its rural population constitutes 81.53% of the total. This is much above the national average of 68.84%. Within the region Assam has the most rural people. Interestingly, Mizoram comes out as the only state in the region, where its population is being equally distributed between urban and rural areas. This has been shown in the following table 2.4.

Table 2.4 : Distribution of Population by Area in India and NE Region

State	Total	Rural	Urban	% of Rural Population
Arunachal Pradesh	1383727	1066358	317369	77.06
Assam	31205576	26807034	4398542	85.90
Manipur	2570390	1736236	834154	67.55
Meghalaya	2966889	2371439	595450	79.93
Mizoram	1097206	525435	571771	47.89
Nagaland	1978502	1407536	570966	71.14
Sikkim	610577	456999	153578	74.85
Tripura	3673917	2712464	961453	81.53
Total (above eight states)	**45486784**	**37083501**	**8403283**	**81.53**
All India	**1210193422**	**833087662**	**377105760**	**68.84**

Source : *Primary Census Abstract: Census of India 2011*

Density of population : As can be seen in the above table, compared to the rest of the country, the NER has low density of population. In fact, Arunachal Pradesh has the lowest density of population in the country with only 13 persons per square kilometer. This is primarily because of large hilly areas and dense forests where human habitation is not possible. However, in Assam, which is the largest plain area in the NER, the density of population is higher than the national average at 345 per square kilometer. The following table 2.5 will make this explanation clear to you.

Table 2.5 : Density of Population in India and NE Region

State	Persons per square KM
Arunachal Pradesh	17
Assam	397
Manipur	122
Meghalaya	132
Mizoram	52
Nagaland	119
Sikkim	86
Tripura	350
All India	382

Source : *Primary Census Abstract: Census of India 2011*

Occupational distribution of the population : The occupational distribution of the NER population conforms to the all India trend. Majority of the people are engaged in agriculture, either as cultivators or as agricultural labourers. The second highest occupational source is the sectors other than agriculture are household industries. These will primarily belong to the service sector, Government sector, and public and private sector industries. But due to the lack of specific data no definite conclusion can be drawn. This can be found out from the following table 2.6.

Table 2.6 :Distribution of Workers by Category and Sex in the NE

India/	Total	Cultivators		Agricultural		Household		Other worker	
		Number	%	Number	%	Number	%	Number	%
Arunachal Pradesh									
Persons	5,87,657	2,48,120	42.2	20,259	3.5	4,728	0.8	2,05,614	35.0
Male	3,50,273	1,30,008	37.1	11,921	3.4	2,772	0.8	1,56,408	44.7
Female	2,37,384	1,18,112	49.8	8,338	3.5	1,956	0.8	49,206	20.7
Assam									
Persons	1,19,69,690	31,38,554	26.2	9,03,294	7.6	2,42,071	2.0	44,03,204	36.8
Male	85,41,560	26,98,384	31.6	7,05,306	8.3	1,46,566	1.7	34,84,386	40.8
Female	34,28,130	4,40,170	12.8	1,97,988	5.8	95,505	2.8	9,18,818	26.8
Manipur									
Persons	11,59,053	3,65,712	31.6	43,774	3.8	44,586	3.9	4,00,940	34.6
Male	6,65,463	2,32,130	34.9	23,603	3.6	13,362	2.0	2,85,423	42.9
Female	4,93,590	1,33,582	27.1	20,171	4.1	31,224	6.3	1,15,517	23.4

India/ State/ UT	Total Workers	Cultivators		Agricultural Labourers		Household industry workers		Other worker	
		Number	%	Number	%	Number	%	Number	%
Meghalaya									
Persons	11,85,705	4,11,270	34.7	1,14,642	9.7	11,969	1.0	3,83,694	32.4
Male	7,03,709	2,43,805	34.7	70,460	10.0	6,459	0.9	2.64,796	37.6
Female	4,81,910	1,67,465	34.8	44,182	9.2	5,510	1.1	1,18,898	24.7
Mizoram									
Persons	4,86,705	2,02,514	41.6	26,464	5.4	5,459	1.1	1,80,596	37.1
Male	2,90,740	1,21,598	41.8	16,601	8.7	3,109	1.1	1,21,997	42.0
Female	1,95,965	80,916	41.3	9,863	5.0	2,350	1.2	58,596	29.9
Nagaland									
Persons	9,74,112	4,20,379	43.2	22,571	2.3	9,525	1.0	2,88,704	29.6
Male	5,47,357	2,08,221	38.0	12,899	2.4	4,731	0.9	2,16,353	39.5
Female	4,26,765	2,12,158	49.7	9,672	2.3	4,794	1.1	72,351	17.0
Sikkim									
Persons	3,08,138	82,707	26.8	11,582	3.8	2,888	0.9	1,33,220	43.2
Male	1,94,358	50,586	26.0	7,145	3.7	2,056	1.1	1,00,726	51.8
Female	1,13,780	32,121	28.2	4,437	3.9	832	0.7	32,494	28.6
Tripura									
Persons	14,69,521	2,46,707	16.8	2,01,863	13.7	19,296	1.3	6,09,153	41.5
Male	10,45,326	2,10,117	20.1	1,56,850	15.0	12,814	1.2	5,08,100	48.6
Female	4,24,195	36,590	8.6	45,013	10.6	6,482	1.5	1,01,053	23.8

Source : Primary Census Abstract: Census of India 2011

A noteworthy feature of the work force participation in the region is that reasonably high female participation in the States of Nagaland, Manipur, Mizoram and Meghalaya are seen. Assam fares rather poor in this regard. But in all the States women constitute the majority among the marginal workers. This reaffirms their vulnerable and weaker status as in case of the rest of the country. A look at the following table 2.7 will make this point clear to you.

Table 2.7 :Number of total, main and marginal worker by sex in NE Region

India/	Total workers			Main worker			Marginal worker		
	Person	Male	Female	Person	Male	Female	Person	Male	Female
Assam	11969690	8541560	3428130	8687123	7034642	1652481	3282567	1506918	17775649
Arunachal Pradesh	587657	350273	237384	478721	301109	177612	108936	49164	59772
Nagaland	974122	547357	426765	741179	442204	298975	232943	105153	127790
Manipur	1159053	665463	493590	855012	554518	300494	304041	110945	193096
Mizoram	486705	290740	195965	415030	263305	151725	71675	27435	44240
Meghalaya	1145619	703709	481910	921575	585520	336055	264044	118189	145855
Tripura	1469521	1045326	424195	1077119	887881	189138	392502	157445	235057
Sikkim	308138	194358	113780	230397	160513	69884	77741	33845	43896

Source : *Primary Census Abstract: Census of India 2011.*



CHECK YOUR PROGRESS

Q 8: Name the most and least populated states of the North East.

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Q 9: What is the density of population of Arunachal Pradesh?

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Q 10: What is the sex ratio of Sikkim?

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Q 11: In which state of the region, the percentage of urban population is the highest?

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2.6 STATUS OF NER IN SELECT INDICATORS OF HUMAN DEVELOPMENT

Let us consider some indicators of human development in the North East. While there are a number of indicators of human development, we shall consider only four such basic indicators. These are Infant Mortality Rate, Literacy Rate, Birth Rate and Death Rate.

Before looking into the details of how the states of the North East fair in these indicators, let us briefly look into the definition of these terms.

Infant Mortality Rate : Infant mortality rate (or IMR) is defined as the number of infant deaths in a year per 1,000 live births during the year. Thus, it indicates the number of deaths of babies under one year of age per 1,000 live births. The rate in a given region, therefore, is the total number of newborns dying under one year of age divided by the total number of live births during the year, then all multiplied by 1,000. The infant mortality rate is also called the infant death rate (per 1,000 live births). IMR is considered to be a useful indicator of a region/country's level of health or development.

Literacy Rate : Literacy rate is a key indicator of socio-economic progress. Literacy rate in India grew from mere 12% in 1947 to 72% in June, 2008 (this figure was published by the National Sample Survey Office (NSSO) in June 2008, the literacy rate among the population with age 7). The same survey of NSSO also reveals that the literacy rate among the adult population (age 15 years and above) during this period was 66%. Although this was a greater than five-fold improvement, the level is well below the world average literacy rate of 84%, and India currently has the largest illiterate population in the world.

There is a wide gender disparity in the literacy rate in India. However, according to the census of 2001, there has been a positive indication that growth in female literacy rates (14.38%) was substantially faster than in male literacy rates (11.13%) in the 1991-2001 decadal period, which means the gender gap appears to be narrowing. (Source:

http://en.wikipedia.org/wiki/Literacy_in_India)

Birth Rate : In the Indian context, Birth Rate is measured as the number of live births per 1000 estimated mid-year population, in a given year. It is also called as Crude Birth Rate (CBR). The birth rate is usually the dominant factor in determining the rate of population growth. It depends on both the level of fertility and the age structure of the population. (Source: http://www.indexmundi.com/india/birth_rate.html).

Death Rate : In the Indian context, Death Rate is measured as the number of deaths per 1000 estimated mid-year population in one year, in a given place. This is also known as the mortality rate or Crude Death Rate (CDR). Thus, the crude death rate measures the total number of deaths per year per 1000 people. As of July 2009 the crude death rate for the whole world is about 8.37 per 1000 per year according to the current CIA World Factbook.

It is should be noted that the crude death rate as defined above and applied to a whole population can give a misleading impression. The crude death rate depends on the age (and gender) specific mortality rates and the age (and gender) distribution of the population. The number of deaths per 1000 people can be higher for developed nations than in less-developed countries, despite life expectancy being higher in developed countries due to standards of health being better. This happens because developed countries typically have a completely different population age distribution, with a much higher proportion of older people, due to both lower recent birth rates and lower mortality rates. A more complete picture of mortality is given by a life table. The life table shows the mortality rate separately for each age group of population. A life table is necessary to give a good estimate of life expectancy.

Sex Ratio : Sex ratio is the number of females per 1000 males. It is a valuable source for finding the population of women in India. The sex ratio of 2011 shows an upward trend from the census 2001 data. States like Puducherry and Kerela have more women than men a sex ratio in these two states are 1037 and 1084 respectively.

Let us now consider the status of the North Eastern states and India as a whole in these indicators of development. This has been shown in the following table 2.8.

Table 2.8 : Selected Indicators of Human Development of India and NE States (2012)

State	IMR	Literacy Rate			Birth Rate	Death Rate	Sex Ratio
	Total	Total	Male	Female	Total	Total	
Arunachal Pradesh	55	65.4	72.6	52.7	22.5	7.9	938
Assam	33	72.2	77.8	66.3	19.4	5.8	958
Manipur	10	79.2	86.1	72.4	14.6	4.0	989
Meghalaya	49	74.4	76.0	72.9	24.1	7.6	987
Mizoram	35	91.3	93.3	89.3	16.3	4.4	976
Nagaland	18	79.6	82.8	76.1	15.6	3.2	931
Sikkim	24	81.4	86.6	75.6	17.2	5.4	890
Tripura	28	87.2	91.5	82.7	13.9	4.8	960
India	42	74.04	82.4	65.46	21.6	7.0	943

Source : *SRS Bulletin, Vol. 48, No.2, September,2013, Registrar General, India.*

From the above table 2.8, it can be said that even when Assam and Meghalaya are considered to be relatively advanced states in the region, the IMR is higher in these two states than the other states of the region as well as the national average.

Literacy rate in the region is highest in Mizoram (second highest in the country) of 91.3. Assam, Meghalaya and Arunachal Pradesh have lower literacy rates than the national average. Again, no state of the region is exceptional to the general fact that the female has lower literacy than male. This difference is however very low in Mizoram.

Both the birth rate and the death rate in the two states of the region, viz., Arunachal Pradesh and Meghalaya are higher than the national averages. The birth rate in the country and all the states of the region are higher in the rural areas than in the respective urban areas. Similarly, the death rate in rural areas is also higher than in the urban areas of the

country and in all the states of the region except Manipur. In Manipur, the death rate is higher in urban areas than in rural areas.

From the above, it can be stated that in these selected set of indicators, the status of the NE states are not very poor as compared to the national average. However, the conditions of Assam and Meghalaya are worse. However, looking at these indicators alone, we cannot readily conclude that the human development of the NE states are better than the many other states or the region, or than the national average. For deriving at such conclusion, we shall have to consider many other indicators.



CHECK YOUR PROGRESS

Q 12: What do you mean by infant mortality rate and what does it indicate? (Answer in about 40 words).

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Q 13: Comment on the literacy rate of the region as per Census 2001 report. (Answer in about 60 words)

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Q 14: In which state of the region, infant mortality rate among females is the highest?

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Q 15. In which state of the region, death rate in the rural area is the lowest?

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2.7 LET US SUM UP

- The North Eastern Region (NER) of India is well endowed in respect of its deposit of mineral resources. Total current reserve of crude oil in the proven oil fields of NER is estimated at 158 million tones.
- North Eastern Region (NER) was very rich in respect of forest resources. But as in 2001, the area covered by forest has come down to 1.224 Lakh sq. Km.
- North East India receives high rainfall of an average of 2000 mm a year with a maximum of 11000 mm in Cherrapunjee.
- The NER has tremendous potential in terms of its natural resources that can change the economic scenario of the region.
- There are several constraints that lie ahead in translating the potential into actual performance.
- The NER constitutes 8% of national area and 4% of national population. Assam has the highest population in the region with 3,12,05,576 and Sikkim is the least populated state with 6,10,577 numbers.
- The NER population is predominantly rural. Its rural population constitutes 81.53% of the total. This is much above the national average of 68.84%.
- As compared to the rest of the country, the NER has low density of population. In fact, Arunachal Pradesh has the lowest density of population in the country with only 17 persons per square kilometer. However, in Assam, which is the largest plain area in the NER, the density of population is higher than the national average at 397 per square kilometer.
- The occupational distribution of the NER population conforms to the all India trend. Majority of the people are engaged in agriculture either as cultivators or as agricultural labourers. The second highest occupational source is the sectors other than agriculture and household industries.

- Some of the states of the region are better placed in select indicators of human development than the national average. Barring Assam and Meghalaya, IMR, Birth Rate and Death Rates are better placed in rest of the states of the region as compared to the national average. The literacy rate is also higher than the national average in the region, exceptions in this case being Assam, Meghalaya and Arunachal Pradesh.



2.8 FURTHER READINGS

- P.K. Dhar: *The Economy of Assam (Including Economy of North East India)*, Kalyani Publishers, 18th Edition, 2007.



2.9 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q. No. 1: Coal, Crude Petroleum, Natural Gas.

Ans to Q. No. 2: About 25% of the total area.

Ans to Q. No.3: 2000 mm.

Ans to Q. No. 4: (a) Mizoram (b) Assam

Ans to Q. No. 5: Promotion of bamboo products, development of medicinal plants, and Promotion of tourism.

Ans to Q. No. 6: (a) True (b) True

Ans to Q. No. 7: Due to geographical isolation and the feeling of economic negligence from and by the mainstream of the country for decades, the NER has become the fertile ground for militancy and separatism.

Ans to Q. No. 8: Most populated state: Assam, Least populated state: Sikkim.

Ans to Q. No. 9: 17.

Ans to Q. No. 10: 890.

Ans to Q. No.11: Mizoram.

Ans to Q. No. 12: Infant mortality rate (or IMR) is defined as the number of infant deaths in a year per 1,000 live births during the year. It indicates the number of deaths of babies under-one year of age per 1,000 live births.

Ans to Q. No. 13: Literacy rate in the region is highest in Mizoram (second highest in the country). Assam, Meghalaya and Arunachal have lower literacy rates than the national average. Again, no state of the region is exceptional to the general fact that the female has lower literacy than male. This difference is however very low in Mizoram.

Ans to Q. No. 14: Assam

Ans to Q. No. 15: Manipur.



2.10 MODEL QUESTIONS

Short Questions (Answer each question in about 150 words)

Q.1. Briefly discuss the availability of water resources in the North East.

Q.2. Prepare a short note on the challenges faced in the proper utilization of the available natural region of the region.

Q.3. Mention a few prospects the NE region can derive from the proper utilization of the available natural resources.

Essay-type Questions (Answer each question in about 300-500 words)

Q.1. Give an outline of mineral and forest resources of the North East India.

Q.2. Discuss the problems and prospects of natural resource utilization in the North East

Q.3. Comment on the basic characteristics of the population of the North East as revealed by the 2011 Census.

Q.4. Write an essay on the status of human development in the North East.

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UNIT 3: MAJOR ECONOMIC PROBLEMS OF NORTHEAST INDIA

UNIT STRUCTURE

3.1 Learning Objectives

3.2 Introduction

3.3 Common Characteristics of North East India

3.4 Major Economic Problems of North East India

- 3.4.1 Poverty
- 3.4.2 Unemployment
- 3.4.3 Capital Formation
- 3.4.4 Other Socio economic Problems of North East India

3.5 Let Us Sum up

3.6 Further Reading

3.7 Answers to Check Your Progress

3.8 Model Questions

3.1 Learning Objectives

After going through this unit, you will be able to :

- Know the nature and problems of Northeast India
- Understand the problems faced by NER.
- Learn about the factors responsible for slow pace of economic development of northeastern states of India.

3.2 INTRODUCTION

The Northeast region of India shares its border with numerous countries like Bhutan, China and Nepal in the north, Bangladesh in the west and Burma in the east and south. It includes the seven sisters – Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland and Tripura along with a small state in the Himalayan fringes, viz. Sikkim which was later incorporated with the region. The eight states located in India's NE cover an area of 262239 sq. km. constituting 7.9 percent of the country's

total geographic area, but have only 45.5 million people or about 3.77 percent of the total population of the country (as per Census of India, 2011). Over 68 percent population of the region live in the state of Assam alone. Density of population varies from 17 per sq.km in Arunachal Pradesh to 398 per sq.km in Assam. The predominantly hilly terrain in all the states except Assam is host to an over whelming proportion of tribal population ranging from 19.3 percent in Assam to 94.5 percent in Mizoram. The region has over 166 schedule tribes and over 400 other tribal communities and groups.

3.3 BASIC CHARACTERISTICS OF NER OF INDIA

The NE region of India is rich in natural resources, covered with dense forest with large and small rivers systems nesting the land and is a treasure house of flora and fauna. Despite these resources, the NER has remained one of the most backward regions of the country. The region is characterized by diversity in customs, cultures, traditions and languages, as as well as some traditional specialities in economic activities of the people. We may highlight the following features of the economy of the region.

- **Low Per Capita Income :** All the states have relatively lower per capita income compared to their prospect and resource endowments. Per Capita Income at Current Prices 2013-14 for all NER states stands Rs. 49,959 against Rs. 68,747 for all India. Except Sikkim and Arunachal Pradesh, all other seven states have state per capita income below the country average. Sikkim has the highest per capita income among northeastern states for the period 2013-14 with Rs. 176,491 at current price, while Manipur has the lowest per capita (at current prices) income with Rs. 36,937 for the same period. Assam, which constitutes more than half of the total population of the region, and also considered as the hub of economic and business activities in the region, stands 2nd lowest in terms of PCY at current prices during the period.
- **Demography and Density of Population :** Population density of NER is relatively low compared to the other states of the country. Only Assam has a high density of population with 398 person per sq.

km. Arunachal Pradesh has the lowest population density in the country having only 17 person per sq. km. (Table 3.1) Most of the population are tribal and has traditional way of living and activities.

Table 3.1: Population Statistics of NE India

State	Geographical Area (sq. km)	Population 2001 census	Population 2011	Decadal growth in population	Density of population
Assam	78438	26655528	31205576	17.07	398
Arunachal Pradesh	83743	1097968	1383727	26.03	17
Manipur	22327	2166788	2721756	25.61	122
Meghalaya	22489	2318822	2964007	27.82	132
Mizoram	21081	888573	1091014	22.78	52
Nagaland	16579	1990036	1980602	-0.47	119
Sikkim	7096	540851	607688	12.36	86
Tripura	10486	3199203	3671032	14.75	350
NE	262239	38857769	45587982	17.32	174
India	3166414	1027015247	1210193422	17.84	382

Source : Census 2001, Census 2011

The above table of the population pattern of NE states indicates that the trend varies from state to state. It is interesting that during the decade 2001 – 2011, Nagaland recorded negative growth in population indicating that there is a decrease in total population during the period. But this is not natural. This may be due to out migration or low birth rate compared to death rate for the state. The reason may be incomplete data for the state due to various reasons.

- **Rich in Natural Resources :** The Northeastern states of India is rich in natural resources. Most of the region are having high forest density and hilly terrain. Except Assam, where more than half of the population live in plain areas, other states are basically hilly or with plain forests. Moreover, states like Assam and Meghalaya, have huge source of mineral resources. Meghalaya is widely hailed to be the most mineral rich state with unique deposits of Kaolin, Silmanite, Phosphates,

Dolomite, Carborundrum and Uranium. Assam is famous for oil and natural gas having a couple of refineries based on such resources. Out of the natural resources tea in Assam is well known to the world. The plants of Tea grow in abundance in the Upper Brahmaputra valley and Barak Valley of the state. The eastern part of Arunachal also has tea cultivation. Assam is responsible for producing the largest quantity of Tea in India and as on 2000, the state has more than 1020 tea gardens with average production of 1769 kg per Hectare. The region has potentiality of water resources too having various rivers and falls.

- **Sharing International Border :** The region shares an international border of 5,182 km with the neighbouring countries which is about 99 percent of its total geographical boundary. It shares 1,395 kilometres with Tibet and China in the north, 1,640 kilometres with Myanmar in the east, 1,596 kilometres with Bangladesh in the south-west, 97 kilometres with Nepal in the west and 455 kilometres with Bhutan in the north-west. For its international boundaries, it has some economic opportunities as well as some problems too.

LET US KNOW



The NER is connected to rest of the country with a mere narrow corridor at Shiliguri, West Bengal whose width is 21 to 41 km only. Because of the narrow area of the through which the states of NER is connected geographically to India, it is called "chicken neck".

- **Slow Industrialization and Employment Generation :** The industrialization process in the north east region is quite slow due a to number of factors. The region has an abundance of natural resources. However, its geographical isolation (the region shares about 90 percent of its border with other countries), hilly terrain, insufficient infrastructure, insurgency, etc., have led to slow growth of industrialization. Only Assam is connected to the rest of the country by railways. Inland waterways, which was used extensively during the British rule and had contributed to the industrialization of

the region is in a poor state. NER's per capita power consumption is approximately 249 KW lower than the national average of 778 KhW, despite having huge potential (around 40 percent of India's water resources) for power generation, especially hydro – electric power. There are various communication bottlenecks affecting rapid industrialization in the region. The absence of large scale industries leads to low employment generation in the region. The cottage and small scale industries play a vital role in the economy of NE India as a source of employment generation.

- **High dependency on agriculture :** The economy of the NER is mostly dependent on agriculture. And the methods for cultivation are still out dated. Even after so many years of green revolution in India, some hilly inhabitants still practice jhum which is harmful for the environment. Due to outdated cultivation method, return from agriculture is also low.
- **Poverty :** Though many states have less incidence of poverty compared to all India, larger states like Assam, Manipur, Arunachal Pradesh have high incidence of poverty, whereas smaller states like Sikkim, Nagaland, and Mizoram have lesser poverty. However, the number of people below poverty line is high due to low rate of growth in the region.



CHECK YOUR PROGRESS

Q1. Which state of NER has the highest per capita income?

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Q2. Mention the density of population in the states of NER according to Census 2011. (Answer in about 20 words)

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3.4 MAJOR ECONOMIC PROBLEMS OF THE ECONOMY OF NER

The common economic problems facing the NER need to be studied for a better understanding of the causes of backwardness of the states of the region. These include high incidence of poverty, unemployment, slow industrialization, low capital formation, along with some other socio-economic problems, which are discussed below.

3.4.1 Poverty

As mentioned earlier, the per capita income of the states of the region are quite low, and the incidence of poverty is high among the states of NER. Lack of employment opportunities is responsible for a large portion of people to be living below poverty line. Though according to Tendulkar methodology of estimation of poverty, the number of people living below the poverty line is not high, in terms of multi dimensional poverty, every state of NER suffer from high incidence of poverty. According to Planning Commission Report on Poverty Estimation published in 2014, in 2011-12 estimation of poverty in India, the highest incidence of poverty among the northeastern states is Manipur with 36.9 percent of its population living below the poverty line. Arunachal Pradesh and Assam has 34.7 percent and 32.0 percent of total population living below the poverty line. The state wise number of BPL people and its percentage to the total population for NE states is shown in the following table.

Table 3.2: Number and Percentage of Population below Poverty Line (Tendulkar Methodology) Year 2011-12

State	No. of Person below Poverty Line (in lakhs)	Percentage of Population below Poverty Line
Arunachal Pradesh	4.9	34.7
Assam	101.3	32.0
Manipur	10.2	36.9

Meghalaya	3.6	11.9
Mizoram	2.3	20.4
Nagaland	3.8	18.9
Sikkim	0.5	8.2
Tripura	5.2	14.0
NE	131.8	
All India	2697.8	21.9

Source: Planning Commission, GOI, 2014

Though it is seen that majority of the states of northeast have less percentage of BPL person, it is imperative that, the states having larger population have the higher percentage BPL population. Total 131.8 lakh people live below the poverty line in entire northeast which is 4.89 percent of total population below poverty people of the country against 3.77 percent total population of the country. However, if we calculate multi-dimensional poverty index, which is based on other socio-economic accessibility or facilities availability to the people, the condition is worse for the northeastern states.

3.4.2 Unemployment

Unemployment is one of the most severe problems of northeastern region of India. Due to slow pace of employment generation in organized sector, unemployment becomes a multi faced problem in the region. Unemployment rate is high in all the northeast states. According to the report of the Ministry of Labour and Employment, GOI, 2014, the unemployment rate in Arunachal Pradesh is 140 per thousand worker. For Sikkim, this rate is higher at 158 persons per thousand workers. Assam has an unemployment rate of 64 persons per thousand workers which is also higher than the all India level. For India, the unemployment rate is 49 persons per thousand in the same period. Employment in organized sector is very low in NER. As we can see in the NEC, Basic Statistics Report 2015, employment growth in organized sector from 2010 to

2011 is negative. Employment in organized sector was 14.81 lakhs in 2011 against 14.97 in 2010 and thus there was -1.1% growth in employment in organized sector in the region. This negative growth in organized sector is mainly due to deceleration in public sector. In all India level, due to the presence of the private sector, there was 1% growth in employment. Thus, with increased labour force, but negative employment generation, the region is suffering from the effects of unemployment.

High rate of unemployment is also caused by lack of industrial growth. However, we may mention some other causes for high incidence of poverty and unemployment among the northeastern states of India as follows :

- Rapid growth of population, caused by migration.
- Primitive method of agriculture
- Inadequate opportunity of self-employment
- Poor skill based education.

3.4.3 Capital Formation

Capital formation in northeast region is poor due to various reasons. There are also some geographical factors leading to poor rate of capital formation. In addition to these geographical reasons, roads and transportation facilities are also not developed. As most of the areas are hilly and suffers from seasonal floods and erosion, high costs are incurred to keep the roads and transportation in good condition. Moreover, the inadequate banking service also causes lack of capital in the northeastern states. Even for the existing banking services, the credit deposit ratio is unfavourable for the region. According to “Report on Trend and Progress of Banking in India, 2008-09, RBI, population per bank branch is 21000 in NER against 15000 in all India. Credit deposit ratio is also alarmingly low for NER compared to other regions. According to the same report, C-D ratio in NER states is 35.8 percent against 72.6 percent at the all India level. No state of NER states has the same level of credit

deposit ratio as all India level. Highest CD ratio in the region is in Mizoram with 58.7 percent. Thus, it can be said that the bankers are not offering loans to the NER; rather they are taking away the funds to the other regions of the country.

Moreover, slow urbanization, poor implementation of the Government schemes for developing infrastructure, some political factors as well as the problems of insurgency and agitation in certain areas of the region are causing low capital formation in the region. Due to lack of capital or lack of funds, there is also lack of entrepreneurial motivation among the youths leading to high unemployment. Moreover, industrialization is highly dependent on capital, either in the form of bank loans or in the form of social overheads and infrastructure. Thus low capital formation also keep the industrial growth at stake.

3.4.4 Other socio-economic problems of NER India

Basically most of the problems facing the NER are interrelated, In addition to the economic factors, there are some social problems prevailing in the NER, causing overall backwardness of the economy. Some of these problems of the region have been discussed below.

- **Slow industrialization :** As already discussed, we see that industrialization and urbanization is slow in the NER. Apart from few natural resource based large scale industries, there are no big industries. The reason for absence of growth of large scale industries is many. Some of them include - problems of transport and communication, problem of insurgency and frequent agitation, sometimes investors are reluctant to establish their units in the area. Moreover, due to lack of political force from the representatives of the NER, the region remains deprived compared to other states of India. There are a number of factors which affect this slow growth of industries in the region.

- Poor infrastructure, viz. transportation and communication facilities
- Shyness of capital and low public sector investment
- Insurgency and ethnic issues based unrest
- Lack of chain coordination between agriculture and industries.
- Lack of entrepreneurial motivation and availability of credit
- Inadequate Government initiative to build large sector industries.

- **Ethnic unrest caused insurgency and agitations :** The NER has bad reputation for frequent blockades and agitations by different ethnic groups for their own agendas. Moreover militant or insurgent groups like NSCN, ULFA, KPLT, NDFB, etc also cause fear amongst the locals and investors. Insurgency and ethnic unrest cause major hindrance for proper industrial growth as well as other developmental projects.
- **Presence of international boundaries and problem of immigration :** Problem of immigration is the most important political as well as economic problem for most of the NER states. The influx of illegal migrants from East Pakistan/Bangladesh into Assam has led to a perceptible change in the demographic pattern of the state. This is a serious threat both to the identity of the Assamese people as well as to our national security. Illegal immigration takes place mainly because of better employment opportunities and availability of fertile agricultural land in Assam. Illegal migration has generated a host of destabilizing political, social, economic, ethnic and commercial tensions. In addition to immigration problem, the international boundary with China and Bangladesh creates problems which mostly affect the northeastern states like Assam, Skkim, Arunachal Pradesh, and Meghalaya. It is also giving upper hand to easy

existence of militant groups like ULFA, NSCN, NDFB, etc, to run their operation taking shelter in boundary sharing country and making easy movement to operate in the states. Especially the chicken neck corridor is very dangerous for the security of the region.

Northeastern region of India, though have some common features, they also have some specific issues and problems which may not be common. However, basic problems such as slow industrialization, unemployment, sharing of international boundary and problems of immigration, lack of adequate roads and transportation, infrastructures, etc. are common needs for all the states. Solution of international border related issues such as solving disputes, proper vigilance by border security force, fencing, mitigation of the bilateral treaties, etc are very essential for the NER to grow faster. Also economic development is the essential answer to the growing insurgency and militant activities in the region. Addressing these problems with political good will is likely to solve the problems to a certain extent, but economic development is a better option to deal with the problems of this region.



CHECK YOUR PROGRESS

Q3. For which mineral resource Meghalaya is famous?

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Q4. How many oil refineries are there in Assam? (Answer in about 20 words)

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Q5. Mention the reasons for slow industrialisation in NER. (Answer in about 50 words)

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3.5 LET US SUM UP

- Northeast region of India includes the eight sisters – Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland and Tripura along with a small state in the Himalayan fringes, viz. Sikkim.
- The eight states located in India's NE cover an area of 262239 sq. km. constituting 7.9 percent of the country's total geographic area, but have only 45.5 million people or about 3.77 percent of the total population of the country (as on 2011 census).
- Over 68 percent of the population of the region live in the state of Assam alone.
- Density of population varies from 17 per sq.km in Arunachal Pradesh to 398 per sq.km in Assam.
- NE is still a predominantly rural region with 82 percent of the population living in rural areas which reveals the poor scenario of urbanization.
- All the states have relatively lower per capita income compared to their prospect and resource endowments. Per Capita Income at Current Prices 2013-14 for all NER states stands Rs. 49,959 against Rs. 68,747 for all India. Except Sikkim and Arunachal Pradesh, all other seven states have state per capita income below the country average.
- The Northeastern states of India are rich in natural resources.
- Assam is well known to the world for its contribution to tea production. Tea grows in abundance in the Upper Brahmaputra valley and Barak Valley of the state.

- About 99 percent of its total geographical boundary is covered with international boundaries.
- In addition to immigration problem, the international boundary with China and Bangladesh making some disputes which mostly affect the northeastern states like Assam, Sikkim, Arunachal Pradesh, and Meghalaya. It is also giving upper hand to easy existence of militant groups like ULFA, NSCN, NDFB, etc., to run their operation taking shelter in boundary sharing country and making easy movement to operate in the states.
- Low capital formation also keep the industrial growth at stake in the NER.
- Problems of NER states are mainly slow industrialization, unemployment, poverty, low per capita income which in most of the states are common.



3.6 FURTHER READING

1) Dhar, P.K. : I*ndian Economy including NER*
2) Govt. of India : *Economic Survey 2014-15*
3) NEC : *Basic Statistics*, 2015



3.8 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q No 1 : Sikkim

Ans to Q No 2 : The density of population in NER is as follows : Assam 398 per sq km, Arunachal Pradesh 17 per sq km, Manipur 122 per sq km, Meghalaya 132 per sq km, Mizoram 52 per sq km, Nagaland 119 per sq km, Sikkim 86 per sq km and Tripura 350 per sq km.

Ans to Q No 3 : Uranium

Ans to Q No 4 : There are four refineries in Assam – Digboi, Numaligarh, Noonmati and Bongaigaon

Ans to Q No 5 : The reasons for slow industrialization in NER include - poor infrastructure, viz. transportation and communication facilities, shyness of capital and low public sector investment, insurgency and ethnic issues based unrest, lack of chain coordination between agriculture and industries, lack of entrepreneurial motivation and availability of credit, inadequate Government initiative to build large sector industries.



3.8 MODEL QUESTIONS

Short type questions (Answer within 200 words)

Q.1. Write an outline on the boundary of NER of India

Q.2. Mention three reasons for slow pace of industrial growth in NER.

Q.3. Mention three reasons for unemployment and high incidence of poverty in northeastern states.

Essay type question (Answer in around 500 words)

Q.1. Explain the common characteristics of NER of India

Q.2. What are the problems of economic development of the NER?

Q.3. Discuss the unemployment problems of the NER.

Q.4. Per capita income of the NER states relatively lower than the all India average"- Do you agree? Justify your answer.

Q.5. Explain the problems and prospects of existence of international borders around northeastern states.

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UNIT 4 : DOMESTIC PRODUCT OF NORTH EAST INDIA

UNIT STRUCTURE

4.1 Learning Objectives

4.2 Introduction

4.3 Trends and Composition of State Domestic Product of NER

4.4 Per Capita Income of the Different States of the Region in the Post Independence Period

4.5 Reasons for Slow Growth Rate of State Income in NER

4.6 NER's Prospect of Border Trade with Neighbouring Countries

4.7 Look East Policy

4.8 Let Us Sum Up

4.9 Further Reading

4.10 Answers To Check Your Progress

4.11 Model Questions

4.1 LEARNING OBJECTIVES

After going through this unit, you will be able to-

- identify the trends and composition of State Domestic Product of North Eastern Region (NER)
- specify the per capita income of the different states of the region in the post independence period
- describe the reasons for slow growth rate of state income of the NER
- discuss the prospect of NER regarding border trade with neibouring countries
- define and discuss the Look East Policy.

4.2 INTRODUCTION

This unit deals with the trends and composition of state domestic product of the eight north eastern states. The status of per capita income of

the different states of the region in the post independence period is also taken into account to get a brief idea of the economic status of the people.

The growth of state income in NER states has been slow for a long period of time. The causes responsible for this sort of affair are lack of adequate employment potential, lack of adequate investment, lack of industrialisation etc. These factors are also analysed in the unit.

The NER has a great potential for border trade and commercial activities with the neighbouring countries. This is because it shares 98 Percent of its borders with the foreign countries namely Nepal, Bhutan, China, Bangladesh, Myanmar etc. The prospect of such border trade has also been discussed in this unit.

India's Look East Policy has also been discussed in this unit. We know that, India's look east policy represents its efforts to cultivate extensive economic and strategic relations with the nations of South East Asia in order to develop the whole NER in particular and the country in general. This involves the extensive trade and commercial practices with the East Asian nations by making NER a convenient gateway or corridor exploring its special geographical location and advantages.

4.3 TRENDS AND COMPOSITION OF STATE DOMESTIC PRODUCT OF NER

Trends: The state domestic product of NER has not risen impressively over the years. Rather, we can say that, the trends of growth of state domestic product has remained slow for decades. Moreover, the growth rates of these state domestic products are widely varying among the various states of the region. Some states are showing a better performance but some other states of the region are showing very pathetic performance over decades. The trends of the growth of Net State Domestic Product (NSDP) of the states of NER can be viewed through a few indicators. The net domestic product at constant (2004-05) prices of Arunachal Pradesh which was Rs. 3188 crores at 2004-05 gradually increased to Rs. 5549 crores in 2013-14 showing a growth rate of 74 Percent. Though at first look, it seems a good figure, but we have to keep in mind that the

above percentage is a cumulative total of 9 years growth. It will clearly indicate that, growth is less than 10 Percent per annum for most of the year (In actual data, it was less than even 5 Percent for a few years). In case of Assam, the amount was Rs. 47181 crores in 2004-05 which increased to Rs. 77376 crores in 2013-14 at constant 2004-05 prices. The rate of increase is approximately 64 Percent which is lower than Arunachal Pradesh. One can easily imagine the per annum meagre rate of increase with these data. Moreover, the rate experienced many fluctuations over the years which is very common to the NER states. In Manipur NSDP(Net State Domestic Product) was Rs. 4603 crore in 2004-05 which increased to Rs. 6620 crores in 2012-13 at constant 2004-05 prices. The rate of increase is approximately 44 Percent which is no doubt very minimal for a cumulative period of 8 years. In Meghalaya the amount was Rs. 5846 crores in 2004-05 which increased to Rs. 11838 crores in 2013-14. The rate of increase of NSDP over the years is 102.5% which is a bit impressive over the years compared to the other states in consideration. Coming to Mizoram, the NSDP at constant 2004-05 prices in the year 2004-05 was Rs. 2400 crores which has increased to Rs. 4688 crores in 2012-13. The rate of increase is 95 Percent over the years. In case of Nagaland, the amount was Rs. 5421 crores which has increased to Rs. 10522 crores in 2013-14 at constant prices. The rate of increase is 94 Percent over the years. The rate of increase is almost same as that of Mizoram. In Sikkim, the NSDP was Rs. 1511 crores in 2004-05 which showed an increase to Rs. 5271 crores in 2013-14 at constant 2004-05 prices. The rate of increase is approximately 249% which is highest among the other NER states. So we can say that the rate of growth is impressive in Sikkim. In Tripura, the NSDP was Rs. 8170 crores in 2004-05 which became Rs. 15585 crores in 2012-13 in constant 2004-05 prices. The rate of increase is 90.75 Percent over the period of 8 years. In this way, we can see the trend of growth of NSDP of the states of NER. We cannot have a clear picture of our status of growth of NSDP of NER without comparing the data with all India level. The all India rate of growth will clearly say whether we are forward or

lagging behind the nation. The next statements will make it clear. In case of India, the NDP was Rs. 2651573 crores in 2004-05 which increased to Rs. 4988116 crores in 2013-14 at constant 2004-05 prices. The rate of increase is 88 Percent. NER states like Arunachal Pradesh, Assam and Manipur falls below the national growth rate of NDP. The other states are doing well by maintaining the growth rate over the national rate. But the important thing is that, Assam, Manipur and Arunachal Pradesh comprises almost 70 Percent area of the NER. Therefore their backwardness simply reflect the backwardness of the whole region.

The situation in the NFR in 2013-14 in shorn in the Table (Table 4.1) Below which show the SDP at current and the per capita income.

Table 4.1 : State Domestic Product (SDP) at current Price (2013-14) (Rs in Lakh)

State	State Domestic at current Prices	State Per Capita income at current Prices
Arunachal Pradesh	1,349,103	84,869
Assam	16,265,224	46,354
Manipur	12,484,23	36,937
Meghalaya	2,104,460	58,522
Mizoram	836,292	63,413
Nagaland	1,774,932	77,529
Sikkim	1,237,669	176,496
Tripura	2,385,470	60,963
NER	22,731,388	49,959
All India	9,388,876	68,747

Composition: The composition of the state domestic product is comprised of the contribution made by primary, secondary and tertiary sector to the total economy of different states of the region. In case of NER, a huge portion of the people are directly or indirectly engaged in agriculture. But their contribution to the states' economy are not prominant due to traditional agricultural base and lack of adequate infrastructure necessary for agricultural development. Moreover, the secondary sector development

in the region is slow and inadequate. Although tertiary or service sector contributes a bit to the states' economy but private investment and operation in service sector activities are still negligible due to some socio-political problems of the region. Let us have a look on the sectoral composition of NSDP of the North Eastern States.

Table 4.2: Contribution of Primary, Secondary and Tertiary Sectors to the NSDPs of the North Eastern States of India

States	Contribution of the Sector to NSDP at Factor Cost (at constant prices 2004-05 price) in percentages		Contribution of the Secondary sector to NSDP at Factor Cost (at constant prices) 2004-05 price) in percentages		Contribution of the Tertiary sector to NSDP at Factor Cost (at constant price 2004-05 prices) in percentages	
	2004-2005	2013-14	2004-2005	2013-14	2004-2005	2013-14
Arunachal Pradesh	37.22	29.05	29.92	31.80	32.85	39.15
Assam	26.77	18.92	25.34	18.92	47.89	58.69
Manipur	25.09	20.07	36.86	27.18	38.05	52.75
Meghalaya	24.46	14.98	24.75	29.55	50.80	55.47
Mizoram	24.55	20.34	15.20	14.92	60.26	64.72
Nagaland	25.09	36.86	04.10	23.02	38.05	55.67
Sikkim	18.76	10.37	28.54	60.04	52.70	29.60
Tripura	26.08	22.69	22.69	23.80	51.23	56.09

Source : Basic statistics of NER, 2015

As can be seen from table 4.2, the contribution of the primary sector to NSDP has deceased in all states. The contribution of the secondary sector is low in all the states of NER except Sikkim which contributes 60.04 percent to NSDP. The tertiary sector plays the most dominant role except in Sikkim.

4.4 PER CAPITA INCOME OF THE DIFFERENT STATES OF THE REGION IN THE POST INDEPENDENCE PERIOD

Per capita income is considered an indicator of the economic status and welbeing of the people of a region or a country. For getting

a close picture of the economic status of the people of NER, we have to look closely towards the growth trends of per capita income of various states of NER after independence. First of all, it can be mentioned that, the per capita income in this region is not so impressive over the decades considering and comparing the national average. Moreover, there are a lots of fluctuation in the growth of per capita income resulting from the fluctuation in the overall growth rate, abnormal increase in population in the whole region. The picture will be clear if we look at the per capita income of the different states of the region from 1980 onwards till present. This is given in the below table:

Table 4.3 : Per Capita Income (at current prices) of NE States

State	1980-81	1985-86	1999-00	2004-05	2005-06	2006 -07	2007-08	2008-09	2009-10	2012-13
Arunachal	1,382	2,834	13,990	22,185	22,291	25,717	28,945	33,302	NA	78,145
Assam	1,221	2,968	12,282	16,900	18,378	20,194	21,991	23,993	26,242	40,475
Manipur	1,382	3,816	13,260	16,433	17,772	18,630	19,780	32,062	NA	36,474
Meghalaya	1,131	2,077	14,355	21,170	23,355	26,387	29,811	33,684	NA	59,513
Mizoram	1,289	2,658	16,443	22,417	24,029	26,220	28,170	30,292	NA	60,836
Nagaland	1,353	2,591	14,101	20,133	20,255	20,892	NA	NA	NA	65,908
Sikkim	1,571	3,023	14,890	23,791	26,628	29,819	33,349	37,553	NA	1,42,625
Tripura	1,211	2,108	14,119	22,836	25,700	27,816	28,806	NA	NA	60,963
All India	1,627	2,734	19245*	23,222	25,696**	29,524	39,903	45,309	50,157	71,593

* IX plan average estimate

** PCI at 1999-00 prices

Source: Directorate of Economics & Statistics of respective State Governments, and for All-India - Central Statistics Office

From the above table we can see that in the post independence period the per capita income of different states of the NER has been low compared to the national average. Upto 2000, the difference in per capita income of the different states of NER is less. After that, different states are showing different levels of progress regarding per capita income. Unfortunate thing is that, Assam, a prominent state of NER regarding economic activities, land size and population has been showing consistently poor performance not only in national context, but also

compared to the other states of the region. Arunachal, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura are showing impressive performance but still below the national average excluding Sikkim. Sikkim is showing very good performance in the recent years, thanks to the extensive development of tourism sector in that state. However, while drawing a conclusion about economic status of people through per capita income, a few things should be kept in mind. Firstly, per capita seems to be impressive when the population of a certain country, state or region is low. This is because, the overall economic product of the region get distributed among few people. This may be the case for impressive performance of Arunachal. Secondly, when a few people of a region becomes extremely rich, the per capita income also shows an impressive performance. But this doesn't ensure improvement of living standard of the people.

CHECK YOUR PROGRESS



Q1: What was the net state domestic product of Assam in 2013-14 at constant(2004-05) prices?

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Q2: Which states of NER falls below the national average growth rate of NDP?

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Q3: Which sector is contributing highest in percentage share towards Assam's economy?

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Q4: Which state of NER has the highest per capita income(at current prices) in 2012-13?

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.....

4.5 REASONS FOR SLOW GROWTH RATE OF STATE INCOME

It has been observed that the divergence or gap between the per capita income of NER states and India has been growing year after year. There are various factors responsible for it. But the scenerio was not same at the eve of independence. For instance, the per capita net domestic product of Assam was much higher than the all India average during the period covering 1950-51 to 1955-56 whereas it is much below the all India average at the moment. The growth rate of state income in NER is found lower than the other states of India. The prime reasons for the slow growth rate of state income are be discussed below :

- **Adverse Natural Factors:** Some of the adverse natural factors are also contributing towards the slow and low level of development of the region and it has resulted in slow growth rate of state income. These factors can be discussed as follows.
  - Geographical Isolation: Geographically NER is connected to the mainland India only through a narrow corridor known as 'Chicken Neck'. This peculiar characteristic always goes against the dvelopement of the region leading to the slow growth rate of state income. This has resulted in the low level of capital inflow to the region. This is also responsible for higher unit cost resulting in slow growth of state income.
  - Difficult Terrain: The difficult terrain of the region surrounded by many hills, rivers and dense forest has resulted in increase in the cost of administration, cost of development projects and cost of mobilisation of various resources. This has created the problem of slow growth of state income of NER.
  - Natural Calamities: NER is prone to various natural calamities like flood, earthquake, drought, landslides etc. For instance, every year, flood occurs in the region resulting huge damage of crops, cattle, houses, public institutions and public properties in various NE states. Assam is the worst sufferer in this respect. Moreover,

heavy rain followed by huge landslides also cause huge damage to life and property in the hilly areas. A good volume of resources of these states have to be diverted towards mitigating the damage caused by natural calamities. Thus, the production, state income and overall development of the region suffers badly due to the natural problems of the region.

- **Higher Growth Rate of Population:** One of the important factors responsible for slow growth rate of state income is the high growth rate of popualtion in the NER states. According to 2011 census, the total population of NER is 4,54,86,784 which is almost 3.5 percent of the total population of India. The rate of increase in population is also high not only because of natural factors but also due to the immigration problem from the neighbouring countries like Bangladesh and Nepal. Due to high rate of population growth, dependency burden and unproductive consumption increases and it has led to slow growth of state income. For instance, the rate of growth of population in Assam is one of the highest in the country. This increase is not solely due to the difference between birth rate and death rate, but mainly due to the immigration problem from neighbouring countries like Bangladesh.
- **Excessive Dependence on Agriculture**: NER's economy is almost dependent on agriculture. In NER, more than 70 per cent working population are engaged in agriculture but their contribution to the state domestic products are not up to mark because of the traditional nature of agricultural practices. Again, a huge portion of the total population of the NER states depends directly or indirectly on agriculture for their livelihood. This excessive dependence on agriculture has created land shortage and small subdivision of existing land holdings. It has made the holdings uneconomic and average yield has declined leading to low profitability. Moreover, excessive dependence on agriculture is also responsible for disguised unemployment in the region. More people, than necessary, are engaged in the agricultural fields of the region whose marginal

productivity are either zero or very negligible. If we take away a substantial portion of the population from those fields, then also agricultural productivity will not suffer. All these problems are highly responsible for lower growth rate of state income in NER.

- **Lack of Industrial Development**: NER is far below the national average in respect of Industrial development. This is primarily due to the lack of sufficient investments in industrial sector during the preceding plans as well as due to her backward geographical location, transport bottlenecks, lack of entrepreneurial skills, lack of industrial friendly socio-political climate in the region. Due to industrial backwardness, NER's state income, annual productivity of non-agricultural goods and employment is suffering very badly. Due to the lack of adequate industries, people are engaged heavily on agriculture and allied activities as said above. We all know that income from agricultural is generally lower than from the industrial sector. Therefore, per capita income is low for the whole region as compared to the national average. This has eventually leading to low growth rate of state income.
- **Poor rate of capital formation**: The economy of NER is confronted with the problem of poor rate of capital formation which is responsible for the slow growth rate of state income. This poor rate of capital formation is the result of low volume and minimal rate of savings in NER. This is due to low per capita income in the region. Poor rate of capital formation leads to capital deficiency and lack of adequate investment in the region and this inherently leads to low growth rate of state income of the region.
- **Shortage of technology and skills**: The economy of North-Eastern Region is suffering from low level of technology and acute shortage of skilled labourers. Due to poor techniques and lower skill, producrion becomes inefficient and insufficient. The technological backwardness of the region is even greater than that of all India standard. For obtaining higher skills, the region has to depend upon other states and foreign countries. Thus the constituent states of the region has

to pay higher prices and wage rates for the skilled labourers and highly technical personnal have to be imported from abroad. Thus, it raises the installation cost of capital goods industries thereby raising the cost of development projects. Under these circumstances growth rate of state income becomes low.

Moreover, the situation becomes even more vulnerable due to lack of adequate entrepreneurial and managerial skills in the region. This is basically due to some complex socio-economic factors leading to even higher prices/cost of industrial and business establishment. This ultimately lead to the problem of slow growth of state income of NER.

- **High Cost Structure**: The NER is characterised by high cost structure in many of the economic activities. This is mainly due to existence of higher price level in all the constituent states of the region in comparison to other states. Roughly, we can state that the cost of production and consumption in the NER is 15-20 percent higher than of India. This is basically due to poor infrastructure and transportation facilities, lack of industrialisation and over dependence on other states in day to day consumption matters. Due to this fact, the marginal propensity to consume (MPC) is higher in NER states, thereby giving less scope to save and invest. This results in lower level of state income in the region.
- **Transportation and Communication Bottlenecks:** One of the serious problems faced by the region is the inadequacy of good transportation and communication system. In case of transportation, the situation is more vulnerable. Geographical isolation, difficult terrain, lack of fund and lack of proper maintenance are some of the factors responsible for this problem. The development of improved railways and all weather road networks are not adequate considering the needs of the region. Excluding Assam, all other seven NE states are having either no railway roots or very insignificant railway connectivity. Agricultural development through improved distribution network and rapid industrialisation are not taking place due to this problem. No doubt,

communication network has increased a bit over the decades with the entry of various private mobile and networking agencies, but yet there is a lot to be done in this regard. Due to the backward transport and communication network, the rate of increase in state income become very slow.

- **Lack of Proper Utilisation and Wastage of Natural Resources:** Inspite of having huge natural resources, the economy of this region has not been able to make the best use of these resources for the sake of overall development of the region. Some of the unfortunate example of this issue are flaring up of natural gas in huge quantity in Assam and Tripura, under-utilisation of coal in Assam and Meghalaya due to lack of initiative for its de-sulphurisation, under-utilisation of various forest products, under-utilisation of huge hydro-power potential which is to the extent of 45000 MW throughout the region which constitute nearly 41% of the countries total hydro-power potential. Such a scenario has led not only to the slow pace of development, but also to the low level of and slow growth rate of state income.

Apart from these natural and economic factors, some other socio-political factors are also contributing towards lower level of development and slower growth rate of state income of the region. These factors are sensitive borders with international disturbances, disturbing low and order conditions and growing insurgency problem, lack of sound administrative machinery and certain societal evils and age old traditions.



CHECK YOUR PROGRESS

Q 5: Write down two adverse natural factors hindering the progress of NER.

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.....

Q 6: What is the prime reason for heavy popualtion explosion in NER apart from natural factors?

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Q 7: Why rate of capital formation is poor in NER?

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Q 8: What is the percentage share of hydro-power potential in NER compared to India?

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Q 9 : Mention two socio-political factors contributing towards low level of development of NER.

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4.6 NER's PROSPECT OF BORDER TRADE WITH NEIGHBOURING COUNTRIES

NER shares 98 Percent of its borders (about 5000 kms) with the foreign countries. Therefore, there is a great prospect of border trade with neighbouring countries. The unique geographical location of the region and its abundant natural resources gives immense scope for a successful and gainful border trade with the neighbouring countries like Bangladesh, China, Myanmar etc. Development of trade and international relations is crucial for the development of NER in general and the whole of India in particular. The trade points of NER border like Moreh (Manipur), Tamu (Myanmar), Zakkawthar (Mizoram), Rikhwadhar (Rhee, Chin), Avankhug -Somra Point (Nagaland), Nampong through Pangsu Pass (Arunachal Pradesdh), Dawki (Meghalaya), Suterkandi (Assam) and Nathula Pass (Sikkim) need to be developed in order to reap the fruit of gainful border trade. The development of infrastructure, connectivity and communication facility is very necessary and compulsory for border trade through NER. The prospect of border trade with the neighbouring countries by NER can be mentioned through the following points.

- North East India's participation in merchandise trade with its neighbouring countries in not very encouraging till now. But there is considerable scope of improving trade in certain local products such

as tea, spices, handloom, bamboo and cane handicrafts. Improvement of quality is the necessary condition for these products to capture the foreign markets and derive benefits from the enhancing trade activities.

- It is observed that a substantial volume of informal trade is taking place along the Indo-Myanmar border. Illegal trade along the border has resulted in huge loss of revenue for the government. of India as well as for the state governments. of the Northeast. If these trade practices are legalised under necessary regulations, it will encourage the ttrading partners to expand their business. It will also enable the Governments. to earn revenue through the collection of duties on imports and exports.
- There are immense possibilities for the North East to enjoy the spin off effects from trade by developing certain service sectors like hospitality, transport and communication, storage, banking and insurance.
- Border trade will give incentive for entrepreneurial development among the local people of the region. This will further create a favourable environment for establishment of hotels and restaurants along transportation routes. To meet the increased demand for food items, establishment of animal husbandry and fishery farms will be accelerated. Moreover, the prospect of developing the motor vehicle servicing industry and fuel agencies will also be very encouraging.
- Increasing border trade in NER can also be a viable solution for the ever increasing unemployment problem in the region. The job seekers can engage themselves gainfully in the trade activities or in various services or self employed activities created as a result of trade expansion.

4.7 LOOK EAST POLICY

Look East Policy is a strategic effort of the Govt. of India to cultivate extensive economic and strategic relations with the nations of

South East Asia in order to make India an emerging regional power of Asia. This policy was adopted by the Government of India in 1991. It was developed and enacted during the Union Govt. under Prime Minister P. V. Narasimha Rao and rigorously pursued by successive Governments. This policy has a high impact and validity for NER, because the strategic trade and economic relations are proposed to be done by making the NER a head corridor and hub of the whole process. In the look east policy framework, NER has been viewed as a 'gateways of opportunities of international trade and commerce' rather than the perceived notion of 'remote and dangerous frontier zone'. The main countries associated in the process are Bangladesh, China, India and Myanmar (BCIM).

The implementation of the Look East Policy has important implications for the northeast region. The policy has been envisaged to achieve growth and development for the region. It is intended to initiate industrial development in an industrially deficient region, diversification of industrial activity, employment generation and trade and market expansion in accordance with the potentials of the region.

Historically and traditionally through the centuries, there has been a natural exchange of people, goods and services between the NER and the countries of South and South East Asia. India's Look East Policy and economic liberalisation were expected to change the Government. of India's priorities in the NER leading to greater economic activity, greater trade and commerce, frequent cultural exchanges and people-to-people interactions with the immediate neighbours in the region.

After the adoption of Look East Policy, there has been a substantial increase in India's trade with Asia. The Share of Asia in India's trade is now the highest and has increased from 12 percent in 1992-93 to about 29.38 Percent in 2005-06. The growth rate of India's trade with Asia as a whole is 26 Percent and with ASEAN countries 20 percent during the period 2005-06. India's trade with countries bordering the Northeast has also seen a dramatic expansion. But little fruit has been reaped by NER so far in this regard. This is because Indian Government. has done most of the trade expansion through the seaports. India is Looking East, but

so far, not through its land borders. The second phase of the Look East Policy is expected to deepen and bring within its fold India's far eastern neighbours including Japan, China, Australia and New Zealand with the impending conclusion of the various Free Trade Areas (FTAs) and bilateral agreements. It can be said that, in the coming days, India will aggressively pursue closer trade and economic ties with its eastern neighbours with a possibility of inclusion of its trade borders. The NER will need to be a part of the economic ties and trade expansion strategy in the second phase of the 'Look East Policy' and become a centre of transit for trade and economic development.

For successful implementation of the Look East Policy, improving transport and communication system is a must. Construction of all whether road, connecting highways, rail stations and airports are the need of the hour. These basic facilities are lacking in NER except Assam. Assam enjoys Same facilities regarding transport and communication but it is also not adequate compared to the national level. The Indian Govt. and the State Govts. of the region must take serious steps in this regard. Coordination among the four transportation systems viz. road, rail, river and air is also necessary for deriving significant economic gain from the Look East Policy. India in general and NER in particular can also face both opportunities and challenges regarding the operationalisation of Look East Policy. As far as the opportunities are concerned, states of the NER may become major beneficiaries by producing quality local products having a high demand in the foreign market. At the same time, improvement of various service sectors such as hospitality, transport and commmunication, storage, banking and insurance, motor servicing and fuel agencies will also get a boost. The improvement of the service sector may also address the severe unemployment problem faced by the region to a certain extent. There is a possibility of properly utilising the region's endowed and untapped natural resources. However, India may also have to face some of the challenges like the loss of security and control of illegal activities. Liberal and extensive trade may lead to the insurgency problem, roads through Myanmar may be used to bring drugs, illegal migrants, infectious

disease and small arms which may harm the country in general and NER in particular.

Though there are negative implications to the implementation of the Look East Policy, yet the policy has the potential to transform India's Northeast to a region of peace and economic prosperity by assessing and managing the risks that are associated with the policy. To realise this possibility, the Govt. of India and the State Govts. of the region should come forward with a positive outlook and actively participate in making the policy a success.



CHECK YOUR PROGRESS

Q 10 : What are the attached neighbouring countries with which NER can initiate massive border trade?

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Q 11: Mention one prospect of border trade of NER with the neighbouring countries.

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Q 12: When the Look East Policy was adopted by Govt. of India?

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Q 13: What is the intention of initiating Look East Policy associating NER?

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Q 14: Write a few neagtive impact of Look East Policy in NER.

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4.8 LET US SUM UP

- Regarding the trends of state domestic product of NER, some states are showing impressive performance over the years, while others are showing slow rate of growth compared to the national average.
- Regarding compostition, the percentage share of primary sector i. e. agriculture and allied activities are coming down over the years and that of tertiary sector(services) are increasing. But the contribution of secondary sector (industries) is still low in the region.
- Upto 2012-13, the per capita income of some states of the region are quite impressive (e.g. Sikkim) and much above the national average; while some of the states are still below (e.g. Assam) compared to the national average.
- Adverse natural factors, higher growth rate of population, excessive dependence on agriculture, lack of industrial development, poor rate of capital formation, shortage of technology and skills, high cost structure, transportation and communication bottlenecks and lack of proper utilisation and wastage of natural resources lead to the slow growth rate of state inomce in NER
- NER has a great prospect of border trade as it shares 98% of its borders (about 5000 kms) with the foreign countries like Bangladesh, China, Myanmar, Bhutan, Nepal etc.
- In 1991, a strategic effort namely Look East Policy was taken by the central govt. to cultivate extensive economic and strategic relations with the nations of South East Asia in order to make India an emerging regional power of Asia. This policy has a high impact and validity for NER because the strategic trade and economic relations are proposed to be done by making NER a head corridor and hub of the whole process.
- There are both positive and negative impact of Look East Policy for NER.



4.9 FURTHER READINGS

- P.K. Dhar: *The Economy of Assam (Including Economy of North East India)*, Kalyani Publishers, 18th Edition, 2007.

4.10 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q No 1: The net state domestic product of Assam in 2013-14 at constant(2004-05) prices was Rs. 77376 crores.

Ans to Q No 2: NER states like Arunachal Pradesh, Assam and Manipur falls below the national growth rate of NDP.

Ans to Q No 3: Tertiary sector is contributing highest in percentage share towards Assam's economy.

Ans to Q No 4: Sikkim has the highest per capita income(at current prices) in 2012-13.

Ans to Q No 5: Two adverse natural factors hindering the progress of NER are geographical isolation and frequent occurance of natural calamities.

Ans to Q No 6: Apart from natural factors, the prime reason for heavy popualtion explosion in NER is the immigration problem.

Ans to Q No 7: The poor rate of capital formation in NER is the result of low volume and minimal rate of savings in NER. This is due to the low per capita income in the region.

Ans to Q No 8: The percentage share of hydro-power potential in NER compared to India is nearly 41%.

Ans to Q No 9: Two socio-political factors contributing towards low level of development of NER are sensitive borders with international disturbances and disturbing low and order conditions.

Ans to Q No 10: The attached neighbouring countries with which NER can initiate massive border trade are Bangladesh, China, Myanmar, Nepal and Bhutan.

Ans to Q No 11: One prospect of border trade of NER with the neighbouring countries is the immense possibilities for the North East to enjoy the spin off effects from trade by developing certain service sectors like hospitality, transport and communication, storage, banking and insurance.

Ans to Q No 12: Look East Policy was adopted by Govt. of India in 1991.

Ans to Q No 13: Look East Policy was intended to initiate industrial development in an industrially deficient region, diversification of industrial activity, employment generation and trade and market expansion in accordance with the potentials of the north eastern region.

Ans to Q No 14: Liberal and extensive trade initiated by Look East Policy may lead to the insurgency problem, roads through Myanmar may be used to bring drugs, illegal migrants, infectious disease and small arms which may harm the country in general and NER in particular.



4.11 MODEL QUESTIONS

A) Short Questions (Answer each question in about 150 words)

Q 1: Discuss adverse natural factors as a hindrance towards economic development of NER.

Q 2: How does poor rate of capital formation lead to lower level of economic development in NER? Explain

Q 3: How is the high cost structure of NER affecting economic development of the region? Discuss

Q 4: What are the preconditions of successful implementation of Look East Policy?

Q 5: Why Look East Policy is not so successful and rewarding to NER?

B) Long Questions (Answer each questions in about 300-500 words)

Q 1: Discuss the trends and composition of state domestic product of NER.

Q 2: What are the reasons of slow growth rate of state income in NER?

Q 3: Discuss NER's prospect of border trade with neighbouring countries.

Q 4: Discuss the positive and negative impact of Look East Policy in NER.

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UNIT 5 : AGRICULTURE IN NORTH EAST INDIA

UNIT STRUCTURE

5.1 Learning Objectives

5.2 Introduction

5.3 Importance of Agriculture in North East India

5.4 Land-use Pattern and Cropping Pattern

5.5 Agricultural Production and Productivity

5.6 Modernization of Agriculture in North East India

5.7 Let Us Sum Up

5.8 Further Reading

5.9 Answer to Check Your Progress

5.10 Model Questions

5.1 LEARNING OBJECTIVES

After going through this unit, you will be able to :

- discuss the issues of the agricultural sector in North East India.
- outline the importance of agriculture in North East economy.
- describe the land-use pattern and cropping pattern in North East.
- examine the agricultural production and productivity in North East.
- draw the features, advantages and disadvantages of shifting cultivation
- enumerate the strategies for the modernisation of agriculture in North East India.

5.2 INTRODUCTION

The NER comprising 255083 sq. kms (total) is predominantly dependent on agriculture. Out of total population in the region, only 20% constitute the urban population, the rest 80% of the population reside in rural areas. A major share of the population in the region is dependent on agriculture as their primary occupation for their livelihood. This shows

the importance of agriculture in the economy of NE India. This unit will be helpful in knowing the cropping pattern, agricultural production, productivity as well as advantages and disadvantages of shifting cultivation. Apart from that, you will also acquire an idea about the issues relating to modernization of the agricultural sector of the region.

5.3 IMPORTANCE OF AGRICULTURE IN NORTH EAST INDIA

The following points outline the importance of the agricultural sector in the economy of NE India.

- The primary occupation for the livelihood of the majority of the people of NER (more than 70%) is agriculture and its allied activities, e.g. horticulture, poultry farming, piggery, fishery etc. Again about 65 percent of total working population are agricultural labourers.
- The agricultural goods produced in this region have been contributing considerably to its industrial development of the NER. The agro-based industries in this region are tea industry, jute industry, paper industry, sugar industry, flour and oil processing mills etc. The agricultural sector supplies raw materials such as tea, jute, sugar cane, cotton, wheat, fruits etc, for the development of these industries.
- The agriculture sector contributes the lion's share to the state domestic product (SDP) in this region. As for example, agriculture and its allied sectors contributed about 39 percent to the state domestic products in Assam in 2002-03, so also the other states, e.g., Meghalaya, Manipur, Tripura, Arunachal Pradesh, Nagaland, Mizoram which altogether contributed on the average 38 percent, in some states higher than this average and some others below it. Thus, it can be said that the agricultural sector is playing an important role in the economic development of North Eastern region.

5.4 LAND-USE PATTERN AND CROPPING PATTERN

Land-use pattern of a region gives us an idea about the uses of land for various purposes. Similarly, cropping pattern is an important indicator to show the area under different crops at a certain period of time.

Land-use pattern : Out of the total geographical area of 2.62 lakh square kilometer (as per 2001 Census of India) of the eight states of the region, total cultivable land available in the region is 61.67 lakh hectare. The state-wise availablility of arable land (i.e., cultivable land) has been shown in the following table 5.1 The figures in the table are for the year 2005-2006.

Table 5.1 : State-wise Availability of Arable Land and Number of Farmers in NE States / India (2005-2006)

(Area in thousand hectare and number of farmers in thousand)

States	Arable Land	Number of Farmers
Arunachal Pradesh	314	107
Assam	3224	2603
Manipur	245	149
Mizoram	218	76
Meghalaya	1058	214
Nagaland	644	144
Sikkim	154	51
Tripura	310	479
NER Total	**6167**	**3823**
India	**182575**	**120820**

Source : *www.indiastat.com. Accessed on 15.07.2010.*

From the above table 5.1, it can be seen that Assam has the highest arable land of 3,224 thousand hectare. Next place is occupied by Meghalaya with 1058 thousand hectare. Sikkim has the least available arable land in the region. The region as a whole has 6167 thousand hectares of arable land.

Now, considering the number of farmers in each of the states, Assam has the highest number of farmers with 2603 farmers. It is interesting to note that Tripura has the second highest number of farmers

with 479 thousand farmers, even when the state ranks in the 5th position in terms of availability of arable land among the states of the region.

Table 5.2 : Total cropped area in NER (2010-11)

State	Total cropped area in 1000 hectare	As percentage of total geographical area
Arunachal Pradesh	276	0.32
Assam	4,100	5.22
Manipur	233	1.04
Meghalaya	336	1.50
Mizoram	487	2.31
Nagaland	123	0.74
Sikkim	144	2.03
Tripura	309	2.95

Source : *Basic statistics of NER, 2015.*

Table 5.2 shows the total cropped area in the different states of NER in 2010-11. The percentage of cropped area is very less in most of the states.

Of the total arable land of 6167 thousand hectare of the region, lands used for the production of the food grains in the respective states has been shown in the following table 5.3.

Table 5.3 : Select State-wise Area for Food grains in India

(Area in thousand hectares)

State/Year	**1996-97**	**2000-01**	**2004-05**	**2007-08**	**2011-12**
Arunachal Pradesh	176.6	187.6	192.6	200.3	205.2
Assam	2728.7	2858.9	2575.5	2518.0	2736.2
Manipur	172.5	167.8	187.4	183.6	279.2
Meghalaya	132.2	135.2	134.5	130.7	133.0
Mizoram	77.5	60.9	66.0	67.1	49.2
Nagaland	201.7	229.5	255.8	302.0	295.1
Sikkim	77.0	76.1	73.9	81.0	69.0
Tripura	272.7	253.9	255.4	247.1	275.4
NE states (Total)	**3838.9**	**3969.9**	**3741.1**	**3729.8**	**4042.3**

Source : *Directorate of Economics and Statistics, Dept of Agriculture and Cooperation, Ministry of Agriculture, GOI.*

From the above table 5.3, it can be seen that since 2000-01, there has been a constant decline in the area used for food grain production in the NE states. On the whole, 3969.9 thousand hectare of land was used for food grain production in the region in 2000-01; but it declined to 3741.1 in 2004-05 and 3729.8 in 2007-08. This trend is not however seen in case of all the individual states of the region, and also for the country as a whole. For example, in case of Assam, there has been a constant decline in the use of land in food grain production during this period (i.e., 2000 – 2008). But the trend is reverse in case of Arunachal Pradesh, and also Mizoram. The table also shows the state-wise area of selected states of India and India as a whole used for food grain production.

Cropping Pattern : North Eastern states have been practising different types of cropping pattern depending on different geographical conditions and climates. However, there has been no significant change in the cropping pattern in the region, because, there is no significant impact of Green Revolution in the region. Rice is the main food grain of this region. Most of the crops in this region are produced in Kharif seasons. However non-food grain or commercial crops such as jute, oil seeds, sugarcane etc, are also being produced in 32 percent of the total cultivable land. The NE region produces very small quantity of pulses and other Rabi crops which covers only 5.6 percent of the total cultivable land. These facts have been shown with the help of the following tables 5.4 and 5.5.

Table 5.4 : Estimates of Area of Kharif Foodgrains

(Area in '000 Hectares)

State/Year	1996-97	2000-01	2004-05	2007-08
Arunachal Pradesh	169.0	180.1	184.5	188.8
Assam	2356.2	2355.1	2099.3	2032.0
Manipur	172.5	167.8	185.3	178.5
Meghalaya	125.5	124.5	123.9	115.8
Mizoram	75.9	59.6	63.5	65.7
Nagaland	194.2	210.0	227.5	285.5
Sikkim	61.1	62.1	60.4	69.4
Tripura	210.2	194.3	193.0	179.2
NE States (Total)	**3364.6**	**3353.5**	**3137.4**	**3114.9**

Source : *Directorate of Economics and Statistics, Dept of Agriculture and Cooperation, Ministry of Agriculture, GOI.*

Table 5.5 : Estimates of Area of Rabi Foodgrains

(Area in '000 Hectares)

State/Year	1996-97	2000-01	2004-05	2007-08
Arunachal Pradesh	7.6	7.5	8.1	11.5
Assam	372.5	503.8	476.2	486.0
Manipur	NA	NA	2.1	5.1
Meghalaya	6.7	10.7	10.6	14.9
Mizoram	1.6	1.3	2.5	1.4
Nagaland	7.5	19.5	28.3	16.5
Sikkim	15.9	14.0	13.5	11.6
Tripura	62.5	59.6	62.4	67.9
NE States (Total)	**474.3**	**616.4**	**603.7**	**614.9**

Source : *Directorate of Economics and Statistics, Dept of Agriculture and Cooperation, Ministry of Agriculture, GOI.*

From the above two tables, it can be summed up that Kharif crops are the mainstay of the agricultural activities of the NE states. The practice of the Rabi crops in the region is very limited. The main reason may be attributed to the lack of proper irrigation facilities in the region. However, it is to be noted that over the years, the area under cultivation with regard to the Rabi crops are gradually increasing.



CHECK YOUR PROGRESS

Q 1: State whether True (T) or False (F).

(a) Since 2000-01, the area used for food grain production in Assam is increasing rapidly.

(b) Meghalaya has the highest number of cultivators in the region.

Q 2: In which states of the region, the area under cultivation has increased since 2000-01? (Answer in about 30 words).

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Q 3: What is the copping pattern of NE India? (Answer in about 60 words)

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5.5 AGRICULTURAL PRODUCTION AND PRODUCTIVITY IN NER

In NER agricultural production can be categorized in two parts-food crops and commercial crops. The major food crops in NER are rice, wheat, pulses and the commercial crops include tea, raw jute, sugarcane, oil seeds etc. Although the economy of the NER is predominately agrarian, yet there has been no significant development in the agricultural sector during the post-green revolution period. Thus green revolution has not been able to make any impact on the agrarian economy of the region. However, the total agricultural production has been increasing at slow pace.

5.5.1 Agricultural Production in NER

The total production of food grains in NER (as per estimates of 1996-97) was 5,315 thousand tonnes, in which Assam recorded 3,532 thousand tonnes, which is about 66% of the total food production in the NER. From the table, it can be seen that all other states fail miserably in the production of food grains. While going through the following table, you may find it quite interesting to note that during the year, no other state of the region has even reached near the average figure of the region, i.e., 664.4 thousand tonnes. You may find it even more interesting to find out that in all other years as has been referred to in the table 5.6 as well, this has never happened. Now, let us consider the underlying reasons for it. First, let us not forget that most of the states of the region are hilly terrains, and as such, arable land is very little and

the land is mostly under shifting cultivation. Secondly, productivity of agriculture in the region is very low. We shall discuss the issue of productivity in detail in the next sub-section. Let us simply mention here that if productivity of agriculture in the region can be enhanced to the levels of other agriculturally advanced states of the country, the volume of production will definitely increase to a large extent.

Table 5.6 : Select State-wise Estimates of Total Food grain Production

(in '000 Tonnes)

State/Year	1996-97	2000-01	2004-05	2007-08	2011-12
Arunachal Pradesh	205.8	215.3	226.9	248.5	362.5
Assam	3532.1	4166.5	3618.2	3470.0	2736.2
Manipur	390.7	395.8	447.8	421.8	669.1
Meghalaya	178.3	216.0	225.2	231.8	249.1
Mizoram	133.8	124.0	124.6	19.1	68.0
Nagaland	212.3	322.7	403.5	473.2	556.5
Sikkim	105.8	103.2	103.9	111.6	103.2
Tripura	556.1	523.1	556.4	633.3	712.4
NE states (Aggregate)	**5314.9**	**6066.6**	**5706.5**	**5609.3**	**11488.9**

Source : *Directorate of Economics and Statistics, Dept of Agriculture and Cooperation, Ministry of Agriculture, GOI.*

When the area under cultivation is taken into account, Assam is the only state in the region that actually is comparable to the other major agriculturally advanced states of the country. But this state matches very poorly with other major states of India, viz., Haryana, Madhya Pradesh, Maharashtra, Punjab and Uttar Pradesh. In all these years, the food grain production in the state has remained considerably lower than these states. Another important point that can be noted from the table is that over the last ten years (1996-97 to 2007-08), the overall difference of the volume of production of food grain between Assam and these states in most of cases, is increasing. For example, during 1996-

97, the difference of production of food grain between Assam and Haryana was (11,448-3,532) 7,916 thousand tonnes. In 2007-08, it became (15,307-3,470) 11,837 thousand tonnes. Thus, the difference has increased over the last decade. This holds good when the volume of production of food grains in the last decade is compared with other states, viz., Maharashtra, and Punjab. More importantly, such differences between the states' aggregate food grain production and the national aggregate as a whole has also increased during the last decade concerned.

It should be kept in mind that among the agricultural crops produced in this region rice is the most important crop compared to the other crops, e.g. wheat, pulses, oil seeds, sugar cane etc. In some hilly states e.g. Meghalaya, Manipur, horticultural crops e.g. pine apple, orange etc. are also produced which makes scope for the growth of the food processing industry in the region. We shall now look into the aspect of productivity of food grain production.

5.5.2 Agricultural Productivity

The most commonly used term for the agricultural productivity is the average yield per hectare of land. After the adoption of green revolution (e.g. hybrid seeds, fertilizers, pesticides, extension of irrigation facility and adoption of intensive methods of cultivation) in the country, the yield per hectare of all crops has been recorded as a rising trend. But, in the NER, the agricultural productivity has remained at the low level. It means that the impact of green revolution has been minimal in this region. And that was quite obvious. This is because, when Green Revoloution was first introduced in India during the 1960s, it was not implemented all over the country. Rather, a few selected states like Haryana and Punjab have been given priority for Green Revolution. Again, the region, especially the major agrarian state

of Assam, was only a late starter to adopt the Green Revolution strategies. As such, the average productivity per hectare of all commodities is low as compared to North Indian states of the country. In 2005-06, the index for, yield per hectare (base 1981-82=100) in Assam was as follows: food grain 135.41, non food grain 107.34 and for all commodities 122.50, whereas the productivity of these crops was much higher in North Indian states.

Rice is the principal food grain produced in all North Eastern states, the average yield of rice per hectare in Assam during 2005-06 was 1695 kg, in Manipur 2170 kg, in Tripura 2120 kgs. In respect of wheat, the average yield per hectare of land was 1340 kgs in Assam, 1150 kgs in Arunachal Pradesh. This was much less than the yield per hectare when compared to 3780 kgs in Punjab and 3285 kgs in Haryana.

Let us consider the overall productivity of the food grains in the region. It has been shown in the 5.7 table. From the table it can be seen that out of all the states in the region, productivity was the highest in Manipur till the year 2004-05. In 2007-08, the highest productivity was recorded in Tripura, 2,563 kg/hectare. In all other preceding years, as has been shown in the table, Tripura occupied the second position among the states in the region. Except in 2007-08, the productivity of Meghalaya is maintaining a steady increase in all the years. Mizoram's record is also quite impressive in the initial years, but the productivity of the state suddenly declined from 1888 kg/hectare in 2004-05 to 285 kg/ hectare during 2007-08.

Table 5.7 : Productivity of Food grain in NE states and selected states of India

(figures in kg/hectare)

State / Year	1996-97	2000-01	2004-05	2007-08	2011-12
Arunachal Pradesh	1165	1148	1178	1241	1767.0
Assam	1294	1457	1405	1378	1704.0
Manipur	2265	2359	2390	2297	2397.0
Meghalaya	1349	1598	1674	1774	1873
Mizoram	1726	2036	1888	285	1382.0
Nagaland	1053	1406	1577	1567	1920.0
Sikkim	1374	1356	1406	1378	1495.0
Tripura	2039	2060	2179	2563	2498.0
North-East Average	**1533.2**	**1677.5**	**1712.1**	**1560.2**	
Haryana	2843	3060	3092	3420	
Madhya Pradesh	1103	945	1131	1069	
Maharashtra	1058	757	836	1150	
Punjab	3786	4032	4040	4255	
Uttar Pradesh	2088	2105	1961	2206	
All India	**1614**	**1626**	**1652**	**1860**	

Source : *Directorate of Economics and Statistics, Dept of Agriculture and Cooperation, Ministry of Agriculture, GOI.*

The productivity of food grains in Assam has been very poor in all the respective years. There have been ups and downs during the period of 1996-97 to 2007-08. The highest productivity in the state was reached during the year 2003-04 (not shown in the table), where it touched the level of 1,472 kg/hectare. In the subsequent year, it declined to 1,405 kg/hectare. In the subsequent two years, i.e., 2005-06 and 2006-07 (not shown in the table), the figures recorded were 1,405 kg/hectare and 1,416 kg/hectare respectively. In 2007-08, the figure slightly improved to reach the level of 1,378 kg/hectare. Productivity of the state has remained lower than the states like Manipur, Meghalaya and Tripura all these years. Except 2008, the productivity of Mizoram is also seen to be higher than Assam. The lowest productivity in the region however has been recorded in Arunachal Pradesh, as can be seen from the above table, except the year 2007-08, in which the figure of Mizoram has

been the lowest.

Let us now compare the productivities of the states of the region along with a few selected agriculturally advanced states of the country, as has been shown in the table. From the table it can be seen that the productivity of food grains in two states of India, viz., Punjab and Haryana are much above the highest productive states of the NE Region, i.e., Manipur and Tripura in all these years. However, in contrary to the volume of production, these two states of the region stand comparatively in better position, when we compare productivity of agriculture with the remaining selected major agrarian states of the country as has been shown in the above table. From the table, it can be seen that except in one instance, productivities of these two states of the region are above the three other major agrarian states of the country, viz., Madhya Pradesh, Maharashtra and Uttar Pradesh. Only in the year 1996-97, the productivity of Uttar Pradesh (2,088 kg/hectare) is slightly above Tripura (2,039 kg/ hectare). Interestingly, the largest agrarian state of the region Assam [in terms of volume of production. But when we consider the area under food grain [(please refer to table 5.3] in the region, Assam is the only state of the region which is actually comparable to the selected agriculturally advanced states in India. However, why productivities of food grain in Manipur and Tripura have been higher than in Assam is beyond the scope of our present discussion. This may need some detailed explanation. You may undertake this activity yourself, and share your understanding on the issue with others. However, before discussing any other new issue, please complete the following Activity 5.1 and try to answer the questions of Check Your Progress Q.5.



ACTIVITY 5.1

From the above discussion, why do you think the volume of production in the states of the region, except Assam has been quite low? Again, what factors would you like to point out for the higher production of food grain in Assam: higher productivity or higher availability of area for food grain production? Justify your view point with the help of statistical evidence. [Hint: You may take help of statistical tables viz., 5.2, 5.3, 5.4 and 5.5 as has been discussed].



CHECK YOUR PROGRESS

Q 4: State whether the following statements are True (T) or False (F)

(a) Assam's higher production of food grain when compared to the rest of the states of the region is basically because of higher productivity of its agricultural sector. (T/F)

(b) Productivity of food grain has been highest in Tripura in all the years. (T/F)

Q 5: Is the agricultural productivity of the NE states higher than All India? Justify your view point. (Answer in about 60 words).

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5.6 MODERNIZATION OF AGRICULTURE IN NORTH EAST INDIA

In the 1960s, green revolution was introduced in the country. But it was confined only to the northern region of the country, and the NE region was virtually left behind. As a result, the agricultural productivity of the NE States remained very low. It is urgently required to increase the

agricultural productivities in the region to meet the growing demand of food products. Therefore, various steps must be taken to modernize the agricultural sector. These steps include;

- Development of irrigation facilities,
- Utilization of high yielding varieties of seeds,
- Utilization of fertilizers and pesticides,
- Mechanization of agriculture.

The irrigated area in the region varies significantly across the states of the region. In 2007-08, Assam had an irrigated area of 92 thousand hectares. This constitutes only 3.65 percent, when the total area under food grain production (2,518 thousand hectares) is taken into account. Though Assam does not suffer from deficiency in water supply (owing to its river system), yet there is need for proper irrigation. This will help the farmers of the state to depend less on monsoon and save its crop loss during the flood. Manipur in 2004-05 had 54 thousand hectares of irrigated land. This is approximately 29 percent of the total area under food grain cultivation (187.4 thousand hectares) of the particular year Meghalaya in 2007-08 had 73 thousand hectares of irrigated land, which is nearly 56% of the total area under food grain cultivation (130.7 thousand hectares) in the state during the year. Mizoram during the year 2007-08 had 10 thousand hectares of irrigated land, which accounts for nearly 15 percent of the total area under food grain cultivation (67.1 thousand hectares) during the year. Nagaland in 2004-05 had 104 thousand hectares of irrigated land. This is over 40 percent of the total area under food grain cultivation (255.8 thousand hectares) during that year. The irrigated area in the state however increased to 106 thousand hectares in 2006-07. Tripura had more than 98 thousand hectares of irrigated land as on March, 2009 against the total sown area of 252 thousand hectares. Thus, nearly 39% of the total cultivated land had irrigation facilities in the state. Sikkim had irrigated land of nearly 24 thousand hectares in 2003-04. When compared with the figure of total area under food grain cultivation in the state in the year

2004-05 (73.9 thousand hectares), it comes to be nearly 32%. (Sources: www.indiastat.com, Economic Review of Tripura, 2008-09, Economic Survey of Sikkim, 2006-07).

From the above discussion, it is very interesting to note that Assam, the highest food grain producing state in the region is having the least irrigated land in the region. This may be one of the possible explanations, as to why the productivity of the state is lower than the other states of the region, viz., Manipur, Meghalaya, Tripura and also Mizoram (excluding the figure of 2007-08). This also means that if irrigation facility in the state is improved, there is possibility of increased agricultural production in the state.

Data are not readily available regarding the utilization of high yielding varieties of seeds in the North Eastern states. However, it is known that the Indian Council of Agricultural Research (ICAR) situated at Shillong is working to introduce HYV seeds, suitable to the climatic condition of the region. Recently, the Assam Agricultural University, Jorhat has also come up with improved paddy seeds, suitable for the state.

Utilisation of fertilizer is also an important indicator of modernization of the agricultural sector of an economy. Data of consumption of fertilizer for all the states of the region are also not readily available. Available data indicates that during 2008-09, per hectare consumption of fertilizer in Assam was only 62.1 kg, which was less than half of the country's average consumption figure of 128.1 kg/hectare. Consumption of pesticides is another important indicator. However, rather than just increasing its quantity of use, optimum utilization of it is much more beneficial. Available data suggest that during the year 2008-09, Arunachal Pradesh utilised 10 metric tonnes (MT) of pesticides in its agricultural sector. During this year, utilisation of pesticides in other states were as follows: Assam: 150 MT, Manipur:30.36 MT, Mizoram: 44.25 MT, Nagaland: 17.83 MT, Sikkim: 2.68 MT and Tripura: 38 MT. In Meghalaya, consumption of pesticides during 2007-08 was 6 MT. In case of Assam, the figure is much less as compared to the figure of 2000-01. During that year, the

state utilized 245 MT of pesticides. During 2000-01, the consumption of pesticides in other states of the region was: Arunachal Pradesh: 13 MT, Manipur: 20 MT, Meghalaya: 6 MT, Mizoram: 8 MT, Nagaland: 8 MT, Sikkim: 4 MT and Tripura: 11 MT. Consumption of pesticides in the country as a whole has marginally increased from 43,584 MT in 2000-01 to 43,860 in 2008-09.

With regard to mechanization of the agricultural sector, though much statistical evidences are not available, yet it can be said that in recent times, utilization of tractors, power tillers have increased substantially. Thus, in can be said that with the adoption of all these modern techniques, it is expected that the production and productivity of agriculture will increase in the region.



CHECK YOUR PROGRESS

Q 6: State whether the following statements are True (T) or False (F)

(a) Agricultural sector of the North East is quite up to date.

(b) Assam has plenty of water resources and need no irrigation.

Q 7: Comment on the irrigation facilities available in Tripura. (Answer in about 40 words)

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Q 8: In your view, is there any impact of green revolution on modernization process of agriculture in NE India? (Answer in about 40 words)

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5.7 LET US SUM UP

- Agriculture plays an important role in the economy of the North East region. The agro-based industries of this region are also very much dependent on the agricultural sector. This sector is also the contributor to GDP on a large scale.
- There has been minimal impact of green revolution in the region and hence the agricultural productivity is quite less as compared to the other parts of the country. Rice is the principal crop in the region. Most crops are produced in the Kharif Season.
- To meet the growing demand of food products by the continuous increase in population, the traditional method of cultivation must be replaced by modern agricultural methods. The measures for the modernization of agriculture in the region are: development of irrigation facilities, utilization of high yielding varieties of seeds, utilization of fertilizers and pesticides, mechanization of agriculture etc. With the adoption of these measures, it is expected that agricultural production and productivity in the region will increase.



5.8 FURTHER READINGS

1) P. K. Dhar : *The Economy of Assam (Including Economy of North East India)*, Kalyani Publishers, 18th Edition, 2007.



5.9 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q No 1 : (a) False (b) False

Ans to Q No 2 : In the states like Arunachal Pradesh, Manipur, Mizoram

and Nagaland area under cultivation has increased since the year 2000-01. The other states of the region however do not show any definite trend.

Ans to Q No 3 : Rice is the main food grains of this region and produced in large area of land except in the hills areas. Most of the crops produced in this region are produced in the Kharif season. The NE region produces a very small quantity of pulses and other Rabi crops which covers only 5.6 percent of the total cultivable land.

Ans to Q No 4 : (a) False (b) False

Ans to Q No 5 : The agricultural productivity of majority of the states of the region is quite low when compared to All-India level. However, agricultural productivity of Manipur and Tripura are quite comparable to other states of the country, though certainly not with Punjab or Haryana. However, agricultural productivity of Assam, the major agrarian state of the region is comparatively lower.

Ans to Q No 6 : (a) False (b) False

Ans to Q No 7 : Tripura had more than 98 thousand hectares of irrigated land as on March, 2009 against the total sown area of 252 thousand hectares. Thus, nearly 39% of the total cultivated land had irrigation facilities in the state.

Ans to Q No 8 : In the sixties, green revolution was introduced in the country. But it was confined only to the northern region of the country, and the NE region was virtually left behind. As a result, the agricultural productivity of the NE States remained very low.



5.10 MODEL QUESTIONS

Short Questions (Answer each question in about 150 words)

Q 1: Briefly discuss the importance of agriculture in the North Eastern states.

Q 2: Discuss the land-use pattern of the North Eastern states.

Q 3: Describe the cropping pattern of the North Eastern states.

Q 4: Briefly explain the issues relating to the modernization of agriculture in North East.

Essay-type Questions (Answer each question in about 500 words)

Q 1: Discuss the trend of productivity of agriculture of the states of the North East.

Q 2: Write an essay on the production of agricultural crops and land-use pattern of the states of the North East.

Q 3: Make a comparative analysis on the productivity of agriculture of the North Eastern states with that of agriculturally advanced states of India. Do you think that Assam has been able to compare favourably with the states like Punjab or Haryana? Justify your view point.

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UNIT 6: NORTH EASTERN COUNCIL (NEC)

UNIT STRUCTURE

6.1 Learning Objectives

6.2 Introduction

6.3 Aims and Objectives of NEC

6.4 Organisation of NEC

6.5 Role and Functions of NEC in Regional Development

6.6 Critical Evaluation

6.7 Let Us Sum Up

6.8 Further Reading

6.9 Answer to Check Your Progress

6.10 Model Questions

6.1 LEARNING OBJECTIVES

After going through this unit, you will be able to–

- state the aims and objectives of NEC
- describe the organisation of NEC
- explain the role and functions of NEC in Regional Development
- evaluate critically the role and functions of NEC

6.2 INTRODUCTION

This unit primarily deals with the discussion regarding one of the important organisations for developing North Eastern Region of India, namely the North Eastern Council (NEC). The NEC is considered as an important development agency for promoting accelerated balanced socio-economic development of the entire North-Eastern Region of our country. The unit gives a clear idea about the aims and objectives of the NEC, its organisation, the role and functions of NEC in regional development and critical evaluation of the role and functions of NEC.

The North Eastern Council is the nodal agency for the economic

and social development of the North Eastern Region which consists of the eight States of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura.

The North Eastern Council was constituted in 1971 by an Act of Parliament. The constitution of the Council has marked the beginning of a new chapter of concerted and planned endeavor for the rapid development of the North-eastern region of India. The NEC has been instrumental in setting in motion a new economic endeavour aimed at removing the basic handicaps that stood in the way of normal development of the region and has ushered in an era of new hope in this backward area which is full of great potentialities.

6.3 AIMS AND OBJECTIVES OF NORTH EASTERN COUNCIL

Every organisation or institution must have some specified aims and objectives towards achieving its broader goal. NEC also has some particular aims and objectives.The following are the main aims and objectives of NEC:

i) To make an all round efforts for bringing socio-economic development of the entire NE region through co-ordinated regional planning.

ii) Removing regional imbalace and inequalities through balaced regional development.

iii) Promoting co-operation, co-ordination and integration among the constituent states by giving advice.

iv) Supplementing the efforts of the constituent units for the development of adequate infrastructural facilities.

6.4 ORGANISATION OF NEC

The NEC is usually formed by taking all Chief Ministers and Governors of eight NE states as its members headed by a chairman. The Chairman of the Council is the Union Home Minister and vice chairman

in the DONER Minister. The Council is functioning through a permanent secretariat established at Shillong. The Council holds discussion in the maters of common interest and undertakes projects involving more than one state.

Earlier, the NEC consisted of only seven member states excluding Sikkim. In the conference of Chief Ministers of the North East and Sikkim held on 8th May 1998 under the Chairmanship of then Prime Minister Atal Behari Vajpayee, the government announced decision to restructure NEC to include Sikkim as the eighth member of the Council.

6.5 ROLE AND FUNCTIONS OF NEC IN REGIONAL DEVELOPMENT

The North Eastern Council was constituted for performing the following functions:

- To discuss any matter in which some or all of the States represented in the Council have common interests and advise the Central Government and the Governments of the States concerned as to the action to be taken on any such matter, particularly in the field of economic and social planning; any matter concerning inter-State Transport and Communications; and any matter relating to Power or Flood-control projects of common interest.
- To formulate and forward proposals for securing the balanced development of the North Eastern areas particularly with regard to a unified and coordinated Regional Plan and prioritizing the projects and schemes included in the Regional Plan .Where a project or a scheme is intended to benefit two or more States, the NEC is to recommend the manner in which such project or scheme may be executed/implemented and managed.

- To review progress of expenditure, and review from time to time the measures taken by the States represented in the Council for the maintenance of security and public order.
- To recommend to the Governments of the States concerned or to the Central Government the undertaking of necessary Surveys and Investigations of projects to facilitate inclusion of new projects in the Regional Plan for consideration.
- To review, from time to time, the measures taken by the States represented in the Council for the maintenance of security and public order and recommend to the concerned State Governments further measures necessary in this regard.



CHECK YOUR PROGRESS

Q 1: When the NEC was established and what is its sole purpose?

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Q 2: What are the member states of NEC?

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Q 3: Who nominate the chairman of NEC?

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Q 4: In which year Sikkim was included as a member state in NEC?

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ACTIVITY 6.1

Read the reports of various meetings of NEC and note down the important points in brief.

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6.6 CRITICAL EVALUATION

Since its inception in 1971, NEC has taken a number of initiatives for the socio-economic development of the region. The major activities undertaken by NEC up to the Tenth Five Year Plan period may be discussed under the following heads:

Agricultural and Allied Sectors : NEC has identified three major constraints that hampered the increase in agricultural production in the region. These are: a) Non-availability of high quality seed of improved variety, b) Lack of irrigation facilities, and c) Transport bottleneck in the movement of fertilizer. To overcome these hurdles, NEC has taken the following steps:

- NEC planned to establish 3 seed farms one each in Assam, Tripura and Manipur. It was expected that these farms will be able to meet to a large extent the demand for improved varieties of seeds in the region.
- For the improvement of irrigation facilities, the NEC had taken a few steps with the help of the Central Ground Water Board (CGWB), especially during the Sixth Five Year Plan period.
- For overcoming the problem relating to shifting cultivation (jhum), NEC has tried to develop certain areas and allow Jhumias to permanently settle in these areas. The NEC also undertook pilot schemes for the Watershed management with the help of expert consultant agencies.

Apart from these, NEC has taken many other steps.

Animal Husbandry and Veterinary Sector : To improve the quality of the liverstock the NEC had set up farms for breeding superior stock to serve the entire region. For improving the production of fodder, initially, 2 fodder seed production farms had been established - one in Tripura and the other one in Arunachal Pradesh.

Fishery Development : To make up the deficiency of fish seeds for water bodies in the region, the NEC had set up a fish seed production farm in Tripura, a fish seed farm at Thizama in Nagaland and a high altitude fish seed farm in Arunachal Pradesh. To give a further boost to the production of fish seed, a pituitary gland bank was also set up in Tripura. All these four projects were set up to bridge the gap between demand and supply. Apart from these, research studies on hydro-biological conditions of water bodies have been sponsored in North Eastern Hill University in Shillong and Gauhati University.

Biodiversity Conservation and Forest Management : NEC has taken some important steps to conserve biodiversity and forest management of the region. Its major initiative in this aspect includes the following:

- Establishment of Regional Forest Rangers' College at Jalukbari, Guwahati.
- Financial support has been provided to State Forest Research Institute, Itanagar, Arunachal Pradesh.
- North Eastern Bio-Diversity Research Cell has been set up.
- Steps have been taken to preserve the Loktak Lake in Manipur.

Horticulture : For the promotion of the horticultural sector of the region, following important measures have been adopted:

- NEC had established 6 progeny orchard cum nurseries within the region to produce high quality planting material of major fruits like citrus, apple, pear, guava, peach etc.
- For the potato programme, 5 regional foundation seed farms were set up during the Fifth Five Year Plan in the hilly parts of the region. In addition, 2 farms for multiplication of Ginger and root crops were set up.
- The constraints that were faced included inadequate marketing facilities and to avoid such conundrum, the NEC established a Regional Agricultural Marketing Corporation. An outlay of Rs. 100 lakhs was initially provided by the NEC for this purpose. This corporation (the NERAMAC), one of the many institutions established by the NEC, is presently under the administrative control of the Ministry of DoNER.

Support to Entrepreneurship Development Programmes (EDPs) : The NEC has also been funding entrepreneurship development programmes in the region. Institutions like Indian Institute of Entrepreneurship (IIE), North Eastern Industrial and Technical Consultancy Organisation Limited (NEITCO), North Eastern Industrial Consultant (NECON) and National Small Industries Corporation (NSIC) located in the Region conduct such programmes for the benefit of the unemployed youth of the region. NEC provides financial assistance to these institutions to conduct such programmes.

Power : A number of projects related to the power sector in the states of the region have been implemented. The northeast altogether has an identified hydroelectric power potential capacity of 63,257 MW and the capacity under use is only 1,911 MW, which is 3.05 per cent of the total potential. Two major power projects Northeastern Electrum power corporation (Neepco's 600 MW kemeng Hyde power project and the NHPC's lower Subansiri Power project are being delayed due to forest and environment clearance, low and order problem, local issues, land acquisition problem, rehabilitation and resettlement, natural calamities, contractual problem, change in design, geo logical shortage, difficult Lorrain and poor accessibility, shortage of skilled / unskiller manpower and delay in supply of materials. A few are also currently under execution. Such projects basically include augmentation and improvement of the existing power stations, construction of heavy power lines, construction of sub-stations, etc.

Renewable Energy : NEC first undertook the Renewable Resources of Energy (RRE) programme in 1982. Under this RRE programme, many schemes have been funded by the NEC since 1982. More than 300 remote villages have been benefited by providing SPV electrification/ Micro hydel, Solar Cooker, Biogas Plants, Integrated Rural Energy Programme, SPV Water Pumping, SPV Water Purifier etc., and about 50 establishments like Charitable Homes, Hospitals, Schools, Colleges, Churches, NIC District. Head Quarters have also been benefited by different RRE devices. In addition to the above, a large number of training

programmes, exhibitions, Energy Parks, evaluation studies have also been taken up.

Transport and Communication : Inadequate transport facility is still a serious drawback that has crippled the development of the region. Due to such bottlenecks, the region has suffered not only economically in the form of relatively high prices of consumer goods and a high cost economy but also by a sense of isolation from the rest of the country. Even when the railway network in the region was not adequate, it was noticed that three-fourth of the total volume of goods traffic to and from the rest of the country was transported by the railways. In order to meet the emerging needs, the NEC had organized a meeting of all Commodity Controllers, the FCI and the Railways so that the demands of the consumer could be easily met with reasonable amount of certitude. The NEC also took the initiative to extend the broad gauge line to Guwahati in order to avoid the bottleneck at New Bongaigaon. Further, roads that had inter-state connectivity, were also given due importance. Air connectivity has also been sought to be improved.

Social and Community Development : Important initiatives taken by NEC in this regard are:

- In August 1989, NEC signed a Tripartite Agreement along with Government of Assam and Department of Atomic Energy, Government of India with the objective of mobilizing resources to meet the non-recurring expenditure of the B. Barooah Cancer Institute, Guwahati and to develop it to fulfill the needs of the cancer patients of the region. This arrangement came to an end in March 1995 (known as Phase – I). However, since the project could not achieve the desired objective during this period and the Institute required further development for rendering adequate service to the cancer patients of the region, the Tripartite Agreement was further renewed on 9th October, 1997 and the Revitalization Plan, Phase-II is under operation. At present, 85 beds are available in the Hospital which will soon be upgraded to 250.
- For the promotion of Sports Youth Activities in the region, NEC has

provided financial assistance to the States and to the registered Sports Clubs/NGO's within this region with the aim to improve the playgrounds, purchase of sports equipment, organising coaching camps, improvement of other critical areas of infrastructure and for organisation of regional and national level tournaments. This scheme was started during the Eighth Five Year Plan (1992-97) and assistance is being provided under direct assistance to the NGO's/ Clubs.

- Keeping in view the dearth of Para-medical manpower in the region, NEC proposed to establish the Regional Para Medical and Nursing Training Institute at Aizawl in 1992-93. A few paramedical Degree, Diploma and Certificate courses have already been started since 1996. The initial cost estimated for this purpose was Rs.475.00 lakhs. However, later, it has been revised to Rs. 2315.39 lakhs.
- The Regional Dental College, Guwahati was established by the NEC during 6th Five Year Plan. The Council sanctioned financial assistance up to 8th Five Year Plan. The institute is the only institute of its kind in the NER. To meet the increasing demand for training adequate manpower and therefore, envisage, expansion with specialisation in dentistry, financial outlay has been made by NEC in the 9th Five Year Plan.
- The Regional College of Nursing, Guwahati is the only institute of its only kind in the North Eastern Region. It was established in 1977 to impart nursing education to the 7 states of NER. This Institute has been receiving financial assistance from NEC since 6th Plan onwards for development and expansion. The Institute is imparting nursing courses for B.Sc Degree and has an intake capacity of 50.

  It is proposed to introduce a P.G. Course in nursing and admission capacity for the girl students of Assam and other North Eastern States are proposed to be increased. In the 9th Plan, NEC provided financial support to the Institute for (a) Construction of college building and teaching block, (b) Construction of 100 seated hostel (c) Salary for addl. staff and (d) Books, journals and furniture.

- Apart from these, the NEC has provided financial assistance to many such institutes of importance. These include Guwahati Medical College, Assam Medical College, Dibrugarh; Ayurvedic Government College, Jalukbari; Regional Pharmacy Institute, Agartala; J. N. Saikia Homeopathic College, Jorhat; Sankardev Netralaya, Guwahati; etc.
- Again, for the promotion of the Tourism sector, NEC has taken major initiatives to establish the North East Tourism Development Council (NETDC) in 2005. The NETDC was established with a Corpus Fund of Rs. 10 crore. Out of this amount, the North Eastern Council provided Rs 1.00 crore, North East Development Financial Corporation Ltd (NEDFi) provided another Rs 1.00 crore, while the Ministry of Tourism, Government. of India provided the remaining Rs 8.00 crores.

However, the above ongoing and proposed programmes and projects must be evaluated critically to get the proper scenerio of its success and failure. The performance and functioning of the NEC, an apex development body of the region can be evaluated as under keeping in view the long 34 years of its establishment.

Table 6.1 : Sanctioned Amount by NEC

(Rs. in crore)

State	2012-13	2014-15	2015-16
Arunachal Pradesh	91.70	62.21	104.62
Assam	91.40	46.05	26.88
Manipur	52.55	48.03	154.80
Meghalaya	86.35	56.11	70.59
Mizoram	83.18	36.81	80.85
Nagaland	84.00	93.02	93.62
Sikkim	55.84	33.97	31.82
Tripura	37.99	61.79	31.02
NER	583.01	437.99	170.62

Source : Basic Statics of North East Region 2015

Table 6.1 shows the funds rebased by NEC to different states of NER. There is a mixed trend with the funds released decreasing in some

states like Assam, Meghalaya, Sikkim and increasing in Manipur, Arunachal Pradesh etc.

In the recent years, the NEC has been experiencing various problems in implementing its projects which includes procedural delays in starting projects, delay in release of funds received from the NEC to the implementing agencies by the State Government, time and cost overruns, poor monitoring of the schemes by the State Governments, non-availability of sufficient funds and problems related to efficient and proper utilisation of funds.

But it should be kept in mind that NEC has not completely failed to fulfill the need and aspiration of the people of the NER. NEC has successfully undertaken and completed a number of basic infrastructral projects in different aspects and thus serving the people of the region. But the operational process and functioning of NEC has been very slow and halting. It should be noted that, NEC works as an advisory body rather than a funding agency since its inception. This makes the Council a little bit handicap regarding the successful initiation of a project. So there is a strong need for the amendment to the NEC Act to make it a full fledged funding agency. This is very essential because till now, the flow of funds to the region is very low and the specific funds the region gets too return to the centre because of lack of planned utilisation.

Moreover, it has been noticed that there is lack of concensus and cordial cooperation among the state governments of the region. Due to this, many viable projects could not be taken up. If intimate cooperation and comprehensive effort is developed among the states of NER, many projects like power and transportation, roads and railways may come into reality in near future. To fulfill this broader need, the reformation and reorganisation of NEC has become the need of the hour.

Thus, from the above, it can be said that NEC has taken some major steps in promoting rapid economic development of the region. However, still, many more are yet to be done. For example, even when the Tourism sector of the Region has enormous potentialities, but in practice, this sector has not been promoted with well thought action

plans. There is ample scope of promoting a number of alternative tourism packages in the region, viz., Tea Tourism, Religious and Cultural Tourism, Eco Tourism, Rural Tourism etc. But so far, only a few hot spots of the region have come to the attention of the tourists, while such alternative packages have not got the due attention.



CHECK YOUR PROGRESS

Q 5: State whether the following statements are True (T) or False (F)

a) The activities of the NEC are confined only to the industrial sector of the region.

b) NEC planned to establish 3 seed farms one each in Assam, Tripura and Manipur.

c) The Regional College of Nursing is situated at Aizawl, Mizoram.

d) NEC first undertook the Renewable Resources of Energy (RRE) programme in 1992.

Q 6: Briefly enumerate the role played by NEC in developing entrepreneurship in the region. (Answer in about 40 words)

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Q 7: Write down two successful project incorporated by NEC.

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Q 8: Mention a few problems faced by NEC.

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ACTIVITY 6.2

List out the projects that has been completed under the initiative of NEC and point out the benefits arising out of the projects.

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6.7 LET US SUM UP

- The North Eastern Council was constituted in 1971 by an Act of Parliament.
- The North Eastern Council is the nodal agency for the economic and social development of the North Eastern Region which consists of the eight States of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura.
- The NEC is usually formed by taking all Chief Ministers and Governors of eight NE states as its members headed by a chairman.
- NEC tries to make an all round efforts for bringing socio-economic development of the entire NE region through co-ordinated regional planning.
- NEC is intended to remove regional embalace and inequalities through balaced regional development.
- NEC promotes co-operation, co-ordination and integration among the constituent states by giving advice.
- NEC is supplementing the efforts of the constituent units for the development of adequate infrastructural facilities.
- NEC discuss any matter in which some or all of the States represented in the Council that have common interests
- NEC formulate and forward proposals for securing the balanced development of the North Eastern areas
- NEC has already done various developmental works related to agriculture and allied fields, industry, transport and communication, education and health of the region.

- NEC is presently facing some of the cooperation and organisation problems which need to be solved for the sake of the region.



6.8 FURTHER READINGS

1) P. K. Dhar : *The Economy of Assam (Including Economy of North East India)*, Kalyani Publishers, 18th Edition, 2007.



6.9 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q No 1: The North Eastern Council was constituted in 1971 by an Act of Parliament. The sole purpose of its establishment was to make alround development of the North Eastern Region.

Ans to Q No 2: The member states of NEC are Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura.

Ans. to Q No 3: The President of India nominate the chairman of NEC.

Ans. to Q No 4: In the year 1998, Sikkim was included as a member state of NEC.

Ans. to Q No 5: a) False b) True
c) False d) False

Ans. to Q No 6: The NEC has also been funding entrepreneurship development programmes in the region. Institutions like Indian Institute of Entrepreneurship (IIE), North Eastern Industrial and Technical Consultancy Organisation Limited (NEITCO), North Eastern Industrial Consultant (NECON) and National Small Industries Corporation (NSIC) located in the Region conduct such

programmes for the benefit of the unemployed youth of the region. NEC provides financial assistance to these institutions to conduct such programmes.

Ans to Q No 7: Two successful project incorporated by NEC are Regional Dental College, Guwahati and Regional College of Nursing, Guwahati.

Ans to Q No 8: In the recent years, the NEC has been experiencing various problems in implementing its projects which includes procedural delays in starting projects, delay in release of funds received from the NEC to the implementing agencies by the State Government, time and cost overruns, poor monitoring of the schemes by the State Governments, non-availability of sufficient funds and problems related to efficient and proper utilisation of funds.



6.10 MODEL QUESTIONS

A) Very Short Questions

Q 1: How many fodder seed production farms had been established by NEC so far?

Q 2: How many progeny orchard cum nurseries are established by NEC so far?

Q 3: How many farms are set up by NEC for multiplication of Ginger and root crops?

Q 4: When did NEC first undertook the Renewable Resources of Energy (RRE) programme?

B) Short Questions (Answer each question in about 150 words)

Q 1: Write down few steps taken by NEC to solve the problem of non-availability of high quality seed.

Q 2: What are the measures NEC has taken to improve the irrigation

facility of NER?

Q 3: Discuss a few steps taken by NEC to develop the tourism sector in NER.

C) Long Questions (Answer each question in about 300-500 words)

Q 1: Discuss the major steps initiated by NEC to develop the agriculture and allied sector of NER.

Q 2: Discuss the measures taken by NEC so far for social and community development of NER.

Q 3: Evaluate critically the contribution of NEC towards the development of NER.

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UNIT 7 : SHIFTING CULTIVATION AND PROBLEMS OF AGRICULTURAL TRANSITION IN THE HILLY AREAS

UNIT STRUCTURE

7.1 Learning Objectives
7.2 Introduction
7.3 Concept of Shifting Cultivation
7.4 Impact of Shifting Cultivation
7.5 Strategy to Change the Status of Shifting Cultivation
7.6 Problem of Agriculture in Hilly Area
7.7 Let Us Sum Up
7.8 Further reading
7.9 Answers to Check Your Progress
7.10 Model Questions

7.1 LEARNING OBJECTIVES

Shifting cultivation is a primitive method of cultivation, known by different names in different places as slash and burn agriculture, migratory agriculture, nomadic agriculture, land rotation agriculture and in North East India it is known as 'Jhum cultivation' or 'Jhuming'. Due to loss of fertility in a particular place, the jhumias shift from one area to another and thus it is known as shifting cultivation. After going through this unit, you will be able to –

- know the meaning of shifting cultivation
- learn about the harmful effects of shifting cultivation
- suggest measures as to how shifting cultivation can be stopped
- learn about the problems of agricultural transaction in hill area.

7.2 INTRODUCTION

Shifting cultivation is a primitive agriculture practise adopted by tribal people in hilly areas of North-East region. As the names indicates it is a rotational type of agriculture, where farmers shift from one place to another

and again return to the original forest land after a few years for cultivation. It is also called migratory or nomadic cultivation. In North-East India, shifting cultivation is known as Jhum cultivation or 'slash or burn cultivation' and the farmers who cultivate are called 'Jhumias'. Jhum cultivation is done in a particular area for some years. Once the fertility of that particular plot decreases, the 'Jhummias' move to other areas and again return to the first area for cultivation, after it is left fallow for a few years, to complete a cycle. This operation constitutes a 'Jhum Cycle' in shifting cultivation.

7.3 CONCEPT OF SHIFTING CULTIVATION

Shifting cultivation is a way of life of the tribal people. Their main source of livelihood is cultivation and a variety of crops are grown in shifting cultivation. The tribal people of hilly areas do not have alternative to hill slope cultivation for producing their food crops, Shifting Cultivation, which originated during the Neolithic period, is still practised in the tribal dominated areas of NE Regions. About four lakh families practise shifting cultivation in the region, according for less than 6 % of the north eastern region of India (Kalita 2001).

There are various steps of shifting cultivation:-

- **Selection of plot -** First of all, there is a need of selection of a plot of land. Jhumiyas select an appropriate plot of land. After the selection of the plot, slashing or cutting of the forest bushes etc are undertaken followed by drying and burning the jungle for clearing it.
- **Preparation of land -** The second step is forest bushes are cut to stump level in the months of December-January. The area is kept in this way for a period sufficient enough to dry up the left-over bushes and tree stumps. After they are dried up, they are burnt and the jungle is cleared. The ashes left also acts as manure. (Choudhury atel 1992). After the jungle is cleared, with simple instruments e.g., digging sticks or hoes, holes are made on lands for sowing seeds of several crops. After the rains, the burnt ashes settle down and the field becomes ready for sowing seeds. Several types of crops are sown into the holes for getting a large variety of crops in the same field.

- **Process of cultivation -** The third step is to make holes on land for sowing seeds of several crops. By using simple instrument like 'Shoul' or spade or even digging stick, the holes are dug in the hill slopes line by line with a gap in between the two holes. These holes are the seed-beds and different types of crop-seeds are sown in the holes so that different crops could be harvested from the same hill. Sowing of seeds is done practically by female worker. Three month time is required for the full growth of the crops.
- **Harvesting and storing -** The last step is harvesting. After three months, the crops are harvested. After harvesting, crops are stored accordingly, followed by merry making. The process continues till the next winter. For the tribal people, the harvest is celebrated as a ritual every year, where they enjoy songs and dances and have community feast.

After the same plot is cultivated for a number of years, the original fertility of land falls as the nutrients of the soil gets exhausted leading to a fall in the yield of the crops. This forces the farmers to shift to a new area leaving the previous the previous land fallow to regain its fertility. The people move to a new area where the same process of slash and burn continues.

The number of years between two consecutive Jhum operations which is known as 'Jhum Cycle' varies between 4 – 9 years, though earlier, it was a longer period ranging between 20 – 30 years.

As already mentioned, in the NER shifting cultivation is practised mostly by the tribal people of the hilly areas. As per an estimate of the North Eastern Council, the total number of tribal families involved in shifting cultivation in the entire north eastern region is about 4.50 lakh.

The cropping pattern in the jhum cultivation is a mixed land use pattern for raising various crops together. The most common crops produced by the Jhumias are jhum paddy, maize, millet, beans, tapioca, yam, sweet potato, ginger, tobacco, sesame, chillies, leafy vegetables, etc.

7.4 IMPACT OF SHIFTING CULTIVATION

Advantages : It is a very easy method for the preparation of land for cultivation. Weeds and bushes can be cleared easily by slash and burn process and large areas can be cleared within a short period. Productivity is also high in the initial years of cultivation.

Disadvantages : Although shifting cultivation is the main occupation for most of the tribal people NER, but it has number of harmful impact in the economy as well as in society. Following are the main drawbacks of shifting cultivation:-

- **Problem of flood -** The most important evil effect of shifting cultivation is destruction of forests and green cover in the hilly areas. It causes heavy soil erosion during rainfall and consequent siltation in the rivers. Due to this, heavy flood occurs in the low-lying plain areas. Generally the eroded soil from cleared up hills come to settle down in river beds of valleys and plains and reduces the capacity of rivers to carry enough of rain water. As a result devastating floods of low-lying areas generated. Due to loss of the top soil in the hill areas, it leads to the fall in fertility of land; which ultimately causes economic problems of the tribal people.
- **Deforestation -** Clearing of forest land leads to deforestation. Shifting cultivation causes deforestation on a large scale. Deforestation leads to destruction of productive and protective values of forests. Geo-climatic nature of the forest is severely eroded in the process of deforestation.
- **Environmental degradation –** Shifting cultivation results in the ecological imbalance of nature, environmental degradation and disruption of the fragile eco- system. Thousands of valuable timber and medicinal plants are lost every year. The environmental imbalance caused leads to uneven spread of monsoon rainfall leading to the problems of draught and excessive rainfall which causes floods.
- **Temporary settlements -** Shifting cultivations has generated a nomadic tendency among the hilly people. It is associated with shifting

village. Generally the whole village is shifted from one place to another along with the change in jhum cycle. Because of this nomadic tendency, no development work of permanent nature can be undertaken for the tribal people of such village. And since there is no private ownership of land, the Jhumias do not undertake any measure for soil conservation and permanent improvement of land.

- **Less productivity -** Loss of top soils in the cultivated areas decreases the fertility of the land. The Jhum cycle at present is as short as 5-7 years; so it is very difficult for re-building the soil fertility within this short period of time. As a result the productivity of the cultivated land decreases. Thus low yield of food crops has become a major economic problem of tribal community.
- **Wasteful Practice -** Shifting cultivation causes a high national waste as it converts a green forest land to fallow land for the major part of the jhum cycle. The jhum cycle does not have an in-built prospect for furthering of agricultural progress.
- **Subsistence Farming -** Shifting cultivation is essentially consumption oriented farming where farmers get enough to meet their consumption requirement only. Thus it is called Subsistence Farming. The reason is that shifting cultivation cannot be organised on a large scale.
- **Low Efficiency -** Cost of Jhum cultivation is high as it requires comparatively more labour per unit of output.
- **Destruction of Natural Beauty -** Shifting cultivation clears the hills through removal of trees and burning of forest trees and bushes. Thus the greenery of hills is destroyed, leading to a decline in the scenic beauty of the area.

7.5 STRATEGY TO CHANGE THE STATUS OF SHIFTING CULTIVATION

It is quite important to have a broad based strategy for changing the status of shifting cultivation considering the evil effects inherent in it. Tribal people should be weaned away from their nomadic agricultural

practices and moved to settled and permanent agricultural practice.

The effective strategies include:

Agricultural land use system through terrace cultivation.

- Land should be used for horticultural and cash crops plantations like fruit orchard, rubber, coffee and oil palm cultivation.
- Livestock based land – use system for developing livestock farming along with fodder production system.
- Watershed management for optimum use of land and water resources should be adopted.
- Tribal families need to be settled for permanent agriculture. Considering the physiographic character of land, climatic conditions, social customs, food habits etc., alternative system of diversified farming should be introduced.
- In order to control shifting cultivation into more regions, proper steps are to be taken to go for intensive and extensive cultivation of rubber, coffee and oil palm.



CHECK YOUR PROGRESS

Q 1: State the concept of shifting cultivation.

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Q 2: Name the steps involved in shifting cultivation.

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Q 3: Briefly discuss the disadvantages of Shifting Cultivation. (Answer in around 80 words).

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7.6 PROBLEMS OF AGRICULTURE IN HILLY AREA

The people of NER have diverse culture, religion, tradition and language as a whole. Geographical area of NER has a little over 25.5 million hectares and around 90 per cent of people live in villages. NER are mostly geographically isolated still now become of lack of infrastructure facility. Following are the harmful impact of agricultural transition in the hilly states of NER:-

- **Fragmented Land Holdings -** The most important feature of the hilly states of NER is the extremely fragmented uneconomic nature of arable lands. As a result, the use of modern machinery is not suitable in the fragmented land, leading to less productivity. Since agriculture is the primary occupation, majority of the population of the region have to depend on agriculture in the absence of alternative occupation.
- **Use of Primitive Implements -** Jhum cultivation is adopted in most of the hilly areas in NER. Thus in shifting cultivation primitive implements such as wooden ploughs with iron blades and spades are generally used which leads to low productivity.
- **Heavy Dependence on Food Crops -** Grain crops are the major crops in NER. Rice is the most distinctive and important crop of the NER. The socio-economic welfare of the people of this region depends mostly on the success or failure of the rice crop. Apart from rice production, a variety of crops like maize, pulses, rape and mustard etc are grown, but overwhelming emphasis is given on rice cultivation. In the entire region rice cultivation covers about 68 per cent of the cropped area (Bhattacharyya, 2005).

  But the main problem is that this type of crops grown are used for consumption purposes only since the proper infrastructure for agricultural development are absent in NER due to the presence of Jhum cultivation in most of places in NER.
- **Poor Marketing Facilities -** Absence of regulated market for agricultural product is another problem of agriculture sector in NER. Though the government of some states of the region have enacted legisla-

tions providing for marketing of agricultural produce, its implementation has not been properly made. The producers having small surplus to sell are heavily exploited at the hands of middlemen (Lekhi,1994).

- **Financial Constraints -** Absence of adequate financial support is another hindrance of agricultural sector NER. Due to inadequate agricultural credit, agricultural sector suffers a lot in NER.
- **Inadequate Input Use -** Another harmful impact of agriculture sector in NER are lack of irrigation facilities and very low use of chemical fertilizer due to the adoption of Jhum cultivation in the hilly areas.
- **Inappropriate Land Reform Policy -** Land reform policy of the NER is not suitable till today. Because of the inappropriate land reform policy, land productivity goes on declining.
- **Recurrence of Flood and Natural Calamities -** A major part of NER is always affected by the heavy and devastating flood. The region is also subjected to other natural calamities like large scale erosion of soil, occurrence of hailstorms, cyclones etc. Development of agricultural sector cannot come in absence of proper flood control measures.



7.7 LET US SUM UP

- Shifting cultivation is a primitive method of cultivation, known by different names in different places as slash and burn agriculture, migratory agriculture, nomadic agriculture, land rotation agriculture.
- In North East India it is known as 'Jhum cultivation' or 'Jhuming'.
- Due to loss of fertility in a particular place, the jhumias shift from one area to another and thus it is known as shifting cultivation.
- There are various steps of shifting cultivation - Selection of plot, Preparation of land, Process of cultivation, Harvesting and storing.
- After the same plot is cultivated for a number of years, the original fertility of land falls as the nutrients of the soil gets exhausted leading to a fall in the yield of the crops.

- This forces the farmers to shift to a new area leaving the previous the previous land fallow to regain its fertility. The people move to a new area where the same process of slash and burn continues.
- The number of years between two consecutive Jhum operations which is known as 'Jhum Cycle' varies between 4 – 9 years, though earlier, it was a longer period ranging between 20 – 30 years.
- Some of the harmful effects of shifting cultivation include – Deforestation, Environmental degradation, Problem of flood, Subsistence farming, High cost of labour, Destruction of Natural beauty.
- It is quite important to have a broad based strategy for changing the status of shifting cultivation considering the evil effects inherent in it. Tribal people should be weaned away from their nomadic agricultural practices and moved to settled and permanent agricultural practice.



7.8 FURTHER READING

1) Dr. N.N. Bhattacharyya (2005) : *North East India-A Systematic Geography, Rajesh Publicaave a broad based strategy for changing the status of shifting cultivation.tions*, New Delhi

2) R.K Lekhi and R.K. Choudhury(1996) : *Economy of India including Assam and North East*. Kalyani publication.

3) Dr. J. Kalita(2001) : *Agriculture in the hill areas of Assam*, Proceeding Volume, NEEA.



7.9 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q No 1: Shifting cultivation is a primitive agriculture practise adopted by tribal people in hilly areas of North-East region. As the names indicates, it is a type of rotational agriculture, where farmers

shift from one place to another and again return to the original forest land after a few years for cultivation. It is also called migratory or nomadic cultivation. In North-East India, shifting cultivation is known as Jhum cultivation.

Ans to Q No 2: The different steps included in shifting cultivation include – Selection of a Plot, Preparation of Land, Process of Cultivation, Harvesting and Storage.

Ans to Q No 3: Following are the main drawbacks of shifting cultivation:-

- Problem of flood - The most important evil effect of shifting cultivation is destruction of forests and green cover in the hilly areas. It causes heavy soil erosion during rainfall and consequent siltation in the rivers. Due to this, heavy flood occurs in the low-lying plain areas.
- Deforestation - Shifting cultivation causes deforestation on a large scale. Deforestation leads to destruction of productive and protective values of forests.
- Environmental degradation – Shifting cultivation results in the ecological imbalance of nature, environmental degradation and disruption of the fragile eco- system. Thousands of valuable timber and medicinal plants are lost every year.



7.10 MODEL QUESTIONS

Q 1: What is shifting cultivation? What are its harmful impacts?

Q 2: What are the problems of agricultural transaction in hill area?

Q 3: Briefly discuss how we can put an end to Shifting Cultivation.

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UNIT 8 : INFRASTRUCTURE IN THE NORTH EAST INDIA

UNIT STRUCTURE

8.1 Learning Objectives

8.2 Introduction

8.3 Physical Infrastructure of the Region

- 8.3.1 Power
- 8.3.2 Transport
- 8.3.3 Communication

8.4 Financial Infrastructure of the Region

8.5 Social Infrastructure of the Region

- 8.5.1 Health
- 8.5.2 Education

8.6 Let Us Sum Up

8.7 Further Reading

8.8 Answers to Check Your Progress

8.9 Model Questions

8.1 LEARNING OBJECTIVES

After going through this unit, you will be able to:

- know the status of physical infrastructure of the region, especially in the sectors like power, transport and communication
- enumerate the availability of financial infrastructure in the region
- explain the meaning of social infrastructure as well as portray the status of social infrastructure in the region, especially relating to health and education.

8.2 INTRODUCTION

We all know that infrastructure plays a major role in the economic development of a state/region/country. We have already discussed the emphasis laid in building infrastructure in the country, especially relating to

the industrial sector, in our earlier course on Indian Economy. Infrastructure may be classified into different categories. While discussing the infrastructure of the north-east, we shall discuss it under three major classifications, viz., physical infrastructure, financial infrastructure and social infrastructure. Thus, this unit will help you in getting an overall account of these three types of infrastructural set up of the region.

8.3 PHYSICAL INFRASTRUCTURE OF THE REGION

When we talk about physical infrastructure, many areas come into our minds. For example, power, transport and communication, basic industries like steel, cement, etc. are included in physical infrastructure. In this unit, we shall consider two basic infrastructural areas – power and transport and communication and will deliberate on what has been their status of development and how they have affected the economic activities in the region.

8.3.1 Power

Among the states in the region, Assam has the largest power generation capacity of 1722 Mkwh as in 2011-12, mainly based on gas. The second is Tripura, (817 Mkwh), mainly gas. Tripura uses a mix of thermal and hydel technologies to meet its ends. Meghalaya has a total power generation (Mkwh) of 519, which is based on hydel technology. The total power generation (Mkwh) in NER and its breakup in 2011-12 is given in table 8.1.

Table 8.1 : Total power generation (Mkwh) in NER

State	2008-2009	2009-2010	2010-2011	2011-2012			
				Thermal	Hydel	Gas	Total
Arunachal Pradesh	84	57	60	0	61	0	61
Assam	1,683	1712	1708	0	455	1317	1772
Manipur	1	2	2	0	2	0	2
Meghalaya	554	536	708	0	519	0	519
Mizoram	11	18	34	0	23	0	23
Nagaland	81	79	81	0	88	0	88
Sikkim	48	39	42	0	42	0	42
Tripura	659	658	772	0	39	778	817
Total India	**343,668**	**347,373**	**348.080**	**271,864**	**76,806**	**20,290**	**373191**

Sources : *Basic statistics of NER, 2015*

The State of Meghalaya generates power more than its own demand, supplying the excess power to Assam. Although Meghalaya is known to be a power-surplus state but it is only so at the cost of the lowest degree of rural electrification and poor per capita consumption of power. At the same time, it is very interesting to note that Meghalaya which is a power surplus state and exports almost 36 percent of power generated by it has the least percentage of villages electrified (47.5%). According to statistics available from the Planning Commission, in 2006 percentage of electrification on an average was 53.3%. It seems therefore that rural to urban disparity in power consumption is very high in Meghalaya. That Meghalaya is a power surplus state is only due to unavailability of power to a great many people living in the rural areas.

Other States have to purchase power from Meghalaya or Central Sector Projects (NEEPCO, Loktak and Kopili) or the Northern region. Assam has to depend on others (mainly Meghalaya, Central Sector Projects and the Northern Region) for about 50 percent of its total consumption. Arunachal Pradesh, Manipur, Mizoram and Nagaland meet only a minor portion of their demand from their own generating stations and thus mainly depend on import of power. Only Tripura is relatively in a better position, importing only 1/3rd of its total requirements.

8.3.2 Transport

The major transportation systems of this region include – Rail Transport, Road Transport, Water Transport and Air Transport. As most of the part of the region consists of hills, roadways are the major infrastructure for transportation. There are no railway routes in Arunachal Pradesh, Manipur, Meghalaya, and Mizoram. Tripura and Nagaland have railway routes only in the plain areas. However, Assam has a substantial length of railway routes. In this unit, we will deliberate mainly on Road and Rail transport.

Road Transport : The road transport system is one of the most important modes of transport in the North Eastern region. In the difficult and inaccessible areas, of the region, road transport is the

only mode of transport. Road transport renders valuable and speedy transportation services in short-distance routes of the region. In the absence of extension of rail transport in the different North Eastern states, the importance of road transport is quite high.

The region had 3.76 lakh kms of road length in 2011, out of which 0.59 lakh kms were surfaced, making up about 21 percent (ratio of surfaced road length to total road length) against 57 percent in India. However, due to low density of population, the road length per thousand population is larger (3.73 kms) than that in the country (2.44 kms). Economically, this leads to the higher cost of transportation for people and commodities both. The total and surfaced length of roads in NER is shown in table 8.2.

Table 8.2 : Total and Surfaced Length of Roads in NERs as on March 31, 2012. (In Kms)

State	Total/Surfaced	2009	2010	2011	2012
1	2	3	4	5	6
Arunachal Pradesh	Total	20,384	21,122	21,556	14,980
	Surfaced	13,314	13,959	14,336	13,157
Assam	Total	236,985	239,394	241,789	284,232
	Surfaced	33,405	35,622	37,816	53,525
Manipur	Total	17,724	18,604	19,133	19,252
	Surfaced	6,732	7,612	8,140	10,457
Meghalaya	Total	11,019	11,702	11,984	12,103
	Surfaced	6,615	6,758	7,072	7,921
Mizoram	Total	7,742	8,727	9,810	11,293
	Surfaced	6,383	6,929	7,001	8,099
Nagaland	Total	32,597	33,423	34,146	35,189
	Surfaced	14,518	15,076	15,470	16,833
Sikkim	Total	4,199	4,420	4,630	5,616
	Surfaced	3,719	3,940	4,119	4,862
Tripura	Total	32,767	33,338	33,772	29,248
	Surfaced	13,217	13,760	14,203	14,548
All India	Total	3,571,510	3,682,439	3,790,342	3,965,394
	Surfaced	2,141,302	2,249,611	2,341,480	2,515,388

Sources : *Basic statistics of NER, 2015*

The important feature of transportation in the region is that it is costlier in terms of money, time and continuity, when compared to other states of the country. This cost is ultimately reflected in the prices of commodities and the cost of living as well as the wage rate which are generally higher than elsewhere and varying substantially at different locations, introducing a substantial degree of imperfection in the commodity and factor markets. This imperfection in the commodity and the factor markets is ultimately reflected in the higher margins of profits on almost all merchandise traded in the region.

Recently, the Government of India has implemented the Special Accelerated Road Development Programme in the North Eastern Region (SARDP-NE) to improve road connectivity to the remote and strategically important places of the NE region. This programme is likely to enhance inter-regional connectivity as well as connectivity between the remote parts of the region and other parts of the country.

Rail Transport : Except Meghalaya and Sikkim all the other six North Eastern States are included in the Rail-map of India. In 2010-11, total route length of railways in the entire North Eastern region was 2627 kms., out of which the total length of metre gauge route was 1127.4 kms. (48 per cent) and that of broad gauge was 1238.3 kms. The Indian Railways have also recently proposed a rail link to Myanmar through the North East, which involves laying tracks in the Jiribam-Imphal-Moreh sector, this line could be extended to Mandalay as part of the Delhi-Hanoi rail link. So far Manipur has 1.35 km of narrow gauge railway line. The survey work for the first ever railway line in Sikkim was recently completed. The proposed broad-gauge line will be 52.7-km long, connecting Sevoke in West Bengal to Rangpo on the West Bengal-Sikkim border. Out of this rail line, 51.7-km will fall in West Bengal with only 1 km lying in Sikkim. The railway line nevertheless marks the entry of Sikkim in the Indian railway map and paves the way for further railway network

in the state. Recently, the Government of India has initiated a plan to connect all the capital cities of the region by railway network the sauté length of railway lines in NER is shown line table 8.3

Table 8.3 : Route Length of Railway Lines in NER

(In Kms)

State	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
1	2	3	4	5	6	7
Arunachal Pradesh	1	1	1	1	1	1
Assam	2,284	2,284	2,284	2,433	2,434	2,459
Manipur	1	1	1	1	1	1
Meghalaya	0	0	0	0	0	0
Mizoram	2	2	2	2	2	2
Nagaland	13	13	13	13	13	13
Sikkim	0	0	0	0	0	0
Tripura	64	64	151	151	151	151
India	63,327	63,273	64,015	63,974	64,460	64,600

Sources : *Ministry of Railways, Govt. of India*

Note : *Meghalaya and Sikkim do not have any railway lines.*

8.3.3 Communication

In this unit, we shall deal with two major types of communication services, viz., telecommunication and postal services.

Telecommunication : Telecommunication plays an important role in the process of economic development in an economy. Especially, in the days of globalisation and wider spread of internet services, entire globe is virtually at a click's distance today. The major telecom service providers in the region include BSNL, Reliance, Airtel, Aircel, Vodafone and Tata Indicom. BSNL has divided the entire region into four circles. Assam alone constitutes the Assam circle, Meghalaya, Mizoram and Tripura are included in NE-1 circle, and Nagaland, Manipur and Arunachal Pradesh are included in NE-2 circle. Sikkim is separately included in Sikkim circle. As on December

31, 2007, Assam had a total of 11,13,469 telephone connections (including Landline, WLL and Cellular). As a whole, the region had 21,45,978 such connections. Thus, Assam accounted for more than 50% of all connections in the region. However, due to larger population, tele-density was the lowest in the State, only 3.79. The highest tele-density among the NE states was recorded in Sikkim (17.12). The state had 92,680 telephone connections against projected population of 541 thousand as on 31.12.2007. NE-1 circle had tele-density of 6.69 (4,66,824 telephone connections against projected population of 6,977 thousand). NE-2 circle on the other hand, had tele-density of 8.27 (4,73,005 against projected population figure of 5,721 persons). Source: Telecom Ministry, Govt of India. Data viewed online at official website of NEDFi.

Postal Network : India has the largest postal network in the world with highest number of permanent post offices. Postal services are very important in the country as it provides not only communication services, but also financial services like savings account, recurring deposits, fixed deposits, money orders and postal life insurances. The higher density of postal services, thus is instrumental in the provision of both communication and financial services.

The following table 8.4 shows postal network in the North Eastern states of india along with density of post offices (density of post offices has been measured in terms of number of post offices per lakh population of a state).

Table 8.4: Number of post offices in the North East

(As in 2004)

State	Number of Post offices	Density of post offices per lakh of population
Arunachal Pradesh	306	26
Assam*	4006	14
Manipur	698	27
Meghalaya	493	20
Mizoram	404	42
Nagaland	328	14
Sikkim	210	36
Tripura	716	21
All India Average	5189	19

Source : *www.indiastat.com, Available at 'Indian States at a Glance 2006-2007 : The North-East and Sikkim, Pearson.*

** Figures of post offices for Assam are for the year 2007. Density of post offices has been calculated on the basis of projected population of the state as on 31.12.2007. Data are available online at NEDFi North East Databank, NEDFi.*

From the above table, it can be seen that in Assam both the average number of post offices and density of post offices are considerably low. The density of Nagaland is also below national average. All other states of the region are having better density of post offices than the national average.



CHECK YOUR PROGRESS

Q 1: State whether the following statements are true (T) or False (F)

(a) Among the states of the north-east, Meghalaya has the largest Railway network. (T/F)

(b) Assam is the only state in the region which produces surplus electricity. (T/F)

Q 2: What are the telecom circles of the region, as per the classification laid by BSNL? (Answer in about 40 words).

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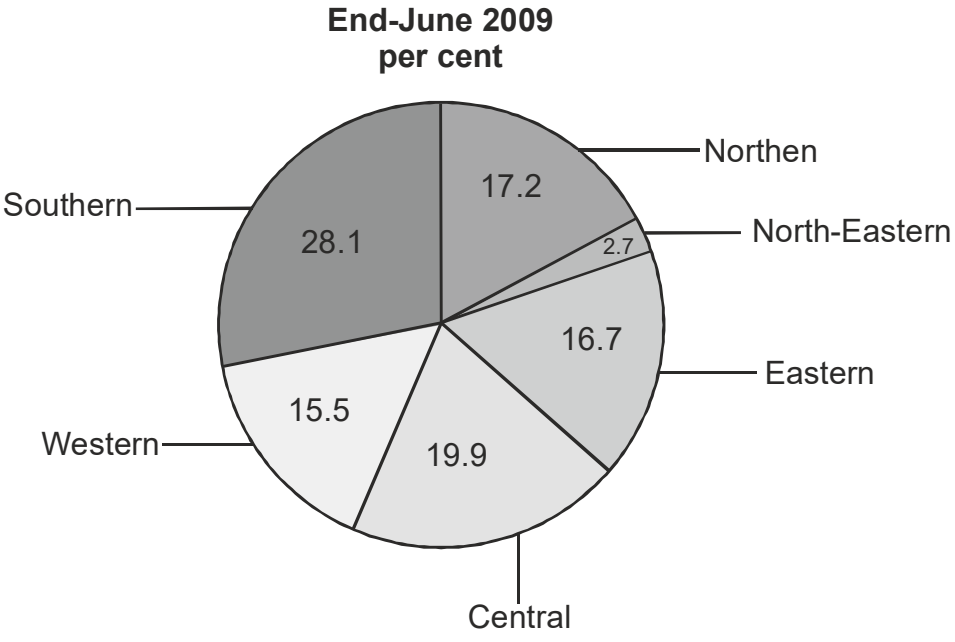
8.4 FINANCIAL INFRASTRUCTURE OF THE REGION

Financial services include banking, insurance, trading in the stocks and shares etc. In the present context, we shall focus on the first two. The banking services in the North East region are not at all satisfactory. Several areas of North East India are yet to receive formal banking services. While nationally there are 59 bank accounts per 100 adult populations, in the North East, there are only 37.3 bank accounts per 100 adult populations. This has happened basically because of the fact that the coverage of banking services in the region is not at all satisfactory.

As on June 2009, the region as a whole (excluding Sikkim) had one branch per 21 thousand of population. This is quite higher than the national average of one branch per 15 thousand population. Manipur in fact had the worst coverage of baking services in the country. The state had one branch per 33 thousand of population. Nagaland had one branch per 26 thousand of population, second worst coverage in the country after Manipur. Even the most economically advanced state of the region, i.e., Assam is also not in a better position. The state had one branch per 22 thousand population. Only two states of the region had better average than the national average, viz., Mizoram (11 thousand population per branch) and Meghalaya (13 thousand population per branch) (Source: Report on Trend and Progress on Banking in India 2008-09, RBI).

The scenario of availability of banking services in the region is a major issue. This will become more obvious when we consider the following figure 8.1. From the figure it can be seen that the North Eastern states have only 2.7% of total branches of banks in India. This limited spread of banking services in the region may be justified, if we consider the percentage of population of the North Eastern states to the total population of India. The projected population figure for the year 2011 shows that the region (including Sikkim) has 3.71% of country's total population. However, a recent study entitled *'Understanding and Responding to the Savings Behavior of Poor People in the North East of India'* conducted by the United States Agency for International Development in July, 2008 has found that the people of the regions still have to rely on the informal mechanism for savings and credit needs.

Figure 8.1 : Region-wise Distribution of Bank Branches



Source : *Report on Trend and Progress of Banking in India 2008-2009. RBI.*

Table 8.5: Offices of commercial banks in NER

State	2012	2013
Arunachal Pradesh	98	106
Assam	1647	1754
Manipur	98	115
Meghalaya	240	256
Mizoram	116	127
Nagaland	108	124
Sikkim	91	98
Tripura	278	303
India	102377	109811

Source : *Basic statistics of NER, 2015*

Table 8.5 shown the distribution of offices of commercial banks in NER. The number of offices is largest in Assam (1754 in 2013). The data shown that the number of offices have uncaused in all the states of the NER.

Credit Deposite Ratio: The credit deposit ratio of banks is the ratio of how much a bank lends out of the deposits it has mobibsid A higher ratio means more reliance on deposits for lending and vice-versa.

Table 8.6: Credit Deposit Ratio (2013)

State	Credit Deposit Ratio
Arunachal Pradesh	21.2
Assam	36.8
Manipur	27.4
Meghalaya	23.4
Mizoram	35.2
Nagaland	27.9
Sikkim	32.5
Tripura	27.0
NER	33.1
India	78.1

Source : *Basic statistics of NER, 2015*

As can be from the table 8.6, the credit deposit ratio falls for short of the Indian figure of 78.1.

Possible Measures for the Improvement of Banking Services/ Infrastructure in the Region : Following measures may be taken to improve the banking services in the region:

- To make its presence felt in the areas where formal banking is not possible, RBI has mooted the plan to introduce mobile banking in selected areas.
- The study conducted by United States Agency for International Development asserts that as each of the states of the region has unique features, unique strategies should be adopted in each of the states. This will help in addressing the right kind of policies in the right context.
- Usha Thorat, Deputy Governor of RBI has stated that the business

correspondence model is ideal for the North Eastern states. She said that this model is likely to be ideal for many North Eastern states like Tripura, a state of harsh terrain and dispersed population. According to her, the bank has adopted a business correspondence model, acting as an agent of a commercial bank to provide banking service to people where there is no banking outlet.

- To promote border trade in the region, that Two Forex bank branches have already been opened in the region, one each in Dawki in Meghalaya and Moreh in Manipur. However, a few Forex bank branches need to be opened up to promote better border trade between the states of the region and the neighbouring countries.



CHECK YOUR PROGRESS

Q 3: State whether the following statements are true (T) or False (F)

(a) The North Eastern states have less than 3% of total branches of banks in India. (T/F)

(b) Per capita deposit in Assam is higher than the national average. (T/F)

Q 4: In which places of the NE region, have the forex bank branches been set up, and why? (Answer in about 40 words).

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8.5 SOCIAL INFRASTRUCTURE OF THE REGION

Along with physical infrastructure and service infrastructures, an economy also has to build up a strong social infrastructure for proper economic development being actually translated into action. In fact, this is a two way process. Economic development may also help the society build up a strong social infrastructure; on the other way round, a strong base of social infrastructure may also help in promoting the desired socio-economic

development of an economy. Let us discuss what we mean by this term 'social infrastructure'. In the Indian context, the term includes the education and the health care system of the country. These constitute the basic social infrastructure in India. However, when we talk about the social sector, some other areas are also included in it. These are: water and sanitation, housing and urban development, nutrition, social welfare programmes etc. However, health and education gets the maximum of the allocations of the budgetary resources. In this section, we shall briefly discuss the status of infrastructural set up in these two sectors of the region. Let us begin with health.

8.5.1 Health Infrastructure in the Region

The infrastructural facilities of public health care is divided into three tiers, viz., sub-centres (SCs), public health centres (PHCs) and Community Health Centres (CHCs). These are set up according to the population of the area. As per the present existing norms, the population covered by each tier of public health institutions in NER rural areas of the country have been shown in the following table 8.7.

Table 8.7: Number of Sub Certres, PHCs, CHCs, SDH, District Hospitals and Mobile Medical Units in NER as on March 31, 2012

State	Sub Centres	PHCs	CHCs	Sub Divisional Hospitals	District Hospitals	Mobile Medical Units
1	2	3	4	5	6	7
Arunachal Pradesh	286	97	48	0	14	16
Assam	4,604	975	109	13	25	50
Manipur	420	80	16	1	7	9
Meghalaya	405	109	29	0	11	7
Mizoram	370	57	9	2	8	9
Nagaland	396	126	21	0	11	11
Sikkim	147	24	2	0	4	4
Tripura	719	79	12	11	2	0
NER Total	7,347	1,547	246	27	82	106
All India	148,366	24,049	4,833	987	722	2,134

Source : *1.Basic Statistics of NER, 2015*

Let us now examine the status of health infrastructure in the different states of the region.

Table 8.8 examines the status of health infrastracture in the different states of NER.

Table 8.8 : Status of Health Infrastructure as per 2011 Population in India

(Figures as on 31st March, 2014)

State	No of SCs			No of PHCs			No of CHCs		
	Req	Exis	Sht	Req	Exis	Sht	Req	Exis	Sht
Arunachal	254	379		39	85		9	31	
Assam	5069	5109		826	610	216	206	100	106
Manipur	412	420		64	72		16	16	
Meghalaya	597	401	196	60	101		22	24	
Mizoram	146	366		22	57		5	9	
Nagaland	535	394	141	80	87		20	21	
Sikkim	109	147		17	24		4	4	
Tripura	659	539	120	104	73	31	26	10	16

Source: *Ministry of Health & Family Welfare, Government of India.*

Abbreviations used : *Req = Required number, as per norms; Exis = Existing number, as on date reported; Sht = Shortfall in number, as on date reported.*

The above table indicates that some of the states of the region are having more than required number of health care institutions, while some others are having less than the requirement.

8.5.2 Educational Infrastructure in the Region

It is an established fact that the backbone of education system is primary education. The future of education to a large extent depends on the quality of primary education. In general, the primary and upper primary education spans up to the 7th standard. The next stage of education is the secondary education.

In general, secondary and higher education starts from 8th Class and goes up to the 12th standard. The last stage of education is the higher education. It comprises with under-graduate studies and goes up to research and doctoral studies.

While there are a number of indicators for assessing the quality of education of a state, we shall not concentrate on these indicators. We shall basically look into the quantitative aspects only. You will be able to know more on the qualitative aspects, which is equally important with the quantitative aspects in your later studies.

The following table 8.9 shows the infrastructural set up in the provision of different layers of education in the region.

Table 8.9 : Status of Educational Infrastructure in NER.

State	Primary School	Higher Secondery School	College 2011-12	Universities 2011-12
Arunachal Pradesh	1,941	191	26	3
Assam	31,202	5482	519	12
Manipur	2,435	761	81	3
Meghalaya	6627	676	66	10
Mizoram	1821	538	29	3
Nagaland	1662	337	62	4
Sikkim	749	126	19	6
Tripura	2307	504	43	3
All India	748,547	128,370	37,840	665

Source : *Basic statistics of NER, 2015*

It can be seen from the table (Tablr 8.9) that the number of primary schools in the region stands at 48,744 with Assam hairing 31, 202. The number of all types of educational institutions in the region is highest in Assam.

The drop out rate refers to the percentage of students failing to complete a particular school or college course. The drop out rates in NER at the school level is shown in table 8.10

The table shown that the drop out rate is higher than the all India level for all states of NER in all categories (Class I-V, Class VIII and Class I-X) Exceptions are Skkim with a drop out rate of 18.4 in Class I-V, Mizoram with a drop out rate of 36.7 in class I-VIII and Manipur (45.3) in class I-X

Table 8.10 : Dropout Rates In NER.

State	Classes I-V			Classes I-VIII			Classes I-X		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1	2	3	4	5	6	7	8	9	10
Arunachal	43.8	42.1	43.0	51.7	49.1	50.5	62.8	61.0	61.7
Assam	33.2	26.4	29.9	49.8	58.2	54.0	76.8	78.1	77.4
Manipur	46.1	45.3	45.7	51.7	53.9	52.8	45.7	44.8	45.3
Meghalaya	61.0	55.7	58.4	72.5	68.3	70.4	78.0	76.7	77.4
Mizoram	37.1	38.7	37.9	37.5	35.7	36.7	55.0	52.3	53.7
Nagaland	40.1	39.8	39.9	45.2	45.6	45.4	75.8	74.4	75.1
Sikkim	24.9	11.0	18.4	50.6	34.3	42.8	72.4	67.1	69.9
Tripura	31.9	30.3	31.1	50.2	45.9	48.2	59.1	57.5	58.4
India	28.7	25.1	27.0	40.3	41.0	40.6	50.4	47.9	49.3

Source : *Basic statistics of School Education 2010-11, Ministry of Human Resoure Development.*



CHECK YOUR PROGRESS

Q 5: State whether the following statements are true (T) or False (F)

(a) During 2005, Assam has an excess of all tiers of health care facilities. (T/F)

(b) Among the states of the region, Nagaland is the only state to have met the targets of setting up of different tiers of health infrastructure during the Tenth Five Year Plan. (T/F)

Q 6: Briefly comment on the infrastructural set up of higher education in the region. (Answer in about 50 words).

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8.6 LET US SUM UP

- Among the states in the region, Assam generates the highest volume of power, 722 MW as on 31st March, 2007, mainly based on the thermal technology.
- The State of Meghalaya generates power more than its own demand, supplying power to Assam in the main.
- Meghalaya exports almost 36 percent of power generated by it. However, it has the least percentage of villages electrified (47.5%).
- The region had 2.82 lakh kms of road length in 2004, out of which 0.59 lakh kms was surfaced, making up about 21 percent (ratio of surfaced road length to total road length) against 57 percent in India.
- Except Meghalaya and Sikkim all the other six North Eastern States are included in the rail-map of India.
- BSNL has divided the entire region into four circles. Assam alone constitutes the Assam circle, Meghalaya, Mizoram and Tripura are included in NE-1 circle, and Nagaland, Manipur and Arunachal Pradesh are included in NE-2 circle. Sikkim is separately included in Sikkim circle.
- Assam accounts for more than 50% of all connections in the region. However, due to larger population, tele-density was the lowest in the State, only 3.79.
- India has the largest postal network in the world with highest number of permanent post offices.
- The banking services in the North East region are not at all satisfactory.
- Like the per capita deposit, per capita credit was also lower than the national averages in all the states of the region.
- The North Eastern region as a whole accounts for less than 3% of the total business volume in the sector, both in terms of number of new policies and collection of premiums.

- Some of the states of the region are having more than required number health care institutions, while some others are having less than the requirement.



8.7 FURTHER READINGS

1) P. K. Dhar : *The Economy of Assam (Including Economy of North East India)*, Kalyani Publishers, 18th Edition, 2007.



8.8 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q No 1: (a) False (b) False.

Ans to Q No 2: The telecom circles classified by BSNL in the region are basically four. These are Assam alone constitutes the Assam circle, Meghalaya, Mizoram and Tripura are included in NE-1 circle, and Nagaland, Manipur and Arunachal Pradesh are included in NE-2 circle. Sikkim is separately included in Sikkim circle.

Ans to Q No 3: (a) True (b) False.

Ans to Q No 4: Two forex bank branches have been opened in the region, one each in Dawki in Meghalaya and Moreh in Manipur. The basic objective of this is to promote border trade in the region with the neighbouring countries.

Ans to Q No 5: (a) F (b) T.

Ans to Q No 6: Higher education includes colleges and universities. The number of colleges, including colleges of all types in the region as in 2005-2006 was 633. This was over 10% of the country's aggregates. Aggregate number of universities in the region during 2006-2007 was 14, which is over 5% of the country's aggregate.

8.9 MODEL QUESTIONS



Short Questions (Answer each question in about 150 words)

Q 1: Write a brief note on the availability of electricity power in the different states of the region.

Q 2: Give a brief account of the transport facilities of the region.

Q 3: Briefly discuss the status of telecommunication infrastructure of the region.

Q 4: Do you think that the states of the region have sufficient facilities of health care institutions? Justify your viewpoint with factual evidences.

Q 5: Do you think banking infrastructure in the region is adequate? If not, what measures would you like to suggest for its improvement?

Essay-type Questions (Answer each question in about 500 words)

Q 1: Write an essay on the physical infrastructural facilities of the region.

Q 2: Critically discuss the financial infrastructure of the region.

Q 3: What do you mean by the term ‘social infrastructure’? Give an account of the social infrastructure of the region.

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UNIT 9 : INDUSTRIALISATION IN THE NORTH EASTERN REGION

UNIT STRUCTURE

9.1 Learning Objectives

9.2 Introduction

9.3 Role of Organized and Unorganized Industries in the Region

9.4 Extent of Industrial Development in the Region

9.5 Development of Small Scale Industries in Region

9.6 Industrial Development in the Region

- 9.6.1 Problems of Industrial Development in the Region
- 9.6.2 Prospects of the Industrial Sector of the Region

9.7 North East Industrial and Investment Promotion Policy (NEIIPP), 2007 (Important Features)

9.8 Let Us Sum Up

9.9 Further Reading

9.10 Answers to Check Your Progress

9.11 Model Questions

9.1 LEARNING OBJECTIVES

After going through this unit, you will be able to:

- know the role of organized and unorganized industries in the region
- discuss on the extent of industrial development of the region
- elaborate on the small scale industries of the different states of the region
- discuss the Industrial policy of the North-East Region
- point out the problems facing the industrial sector of the region
- outline the prospects for the region for proper development of the industrial sector
- describe the important features of the NEIIP, 2007 policy, adopted by the Government of India.

9.2 INTRODUCTION

This unit introduces you to the industrial sector of the Northeast. The Northeastern region has not been able to cope up with the rest of India in respect of industrial development. Assam has a long cherished industrial history, owing to the tea and petroleum sector. In this unit, our discussion will be on the issues, viz., and role of organized and unorganized industries in the region, the extent of its industrial development, the development of SSI sector in the region. Apart from these, problems and prospects of the industrial sector as well as the important features of the recent North East Industrial and Investment Policy (NEIIP), 2007 have also been discussed.

9.3 ROLE OF ORGANISED AND UNORGANISED INDUSTRIES

Based on the parameter used, the industries of the region may be classified into different categories. When the raw materials used by the industries in the region are taken into account, the industries of the region may be broadly classified as under:

- **Agro-based industries :** It includes tea industry, sugar industry, grain mill products industry (rice, oil and flour mills), food processing industry and the textile industry.
- **Mineral-based industries :** Mineral-based industries of the north eastern region include railway workshops, engineering industry, and re-Rolling Mills, steelworks, motor-vehicle workshops, galvanised wire units, cycle factories, aluminium utensils industry, cycle spare parts, steel wire net, barbed wire, cement industry etc. Moreover, the non-metal based industries include petroleum oil industry and natural gas-based industry .
- **Forest-based industries :** It includes plywood industry, saw-mill industry, paper and paper pulp industry, match industry, lacquer industry, hard board industry etc.

- **Other industries :** It includes power generation industry, fertiliser industry, printing press, brick and tiles industry, Ice industry, chemical industry etc.

Again, the industries of the north eastern region can also be classified into (a) organised industries and (b) unorganised industries.

- The organised industries of the north eastern region include tea, petroleum, paper, cement, plywood, coal, jute, sugar, fertiliser etc.
- The unorganised industries of the region include the small and cottage industries, handicrafts, tiny and related industries etc.

Due to low level of infrastructural set up, inaccessibility of the region owing to hilly terrains in most of the states of the region, there has been a problem in setting up of large industrial projects in these states. Except Assam and Meghalaya, the industrial sector of the region is often characterized by small scale industrial (SSI) units. Such units come up in the traditional sectors like: handloom and handicrafts, khadi and village industries, especially in the states like Arunachal Pradesh, Manipur, Mizoram, Sikkim and Tripura.

Let us now consider the shares of the registered and unregistered units in the manufacturing sector as a whole in these economies. Registered manufacturing refers to those units that correspond to the registration criteria set by sections 2m(i) and 2m(ii) of the Factories Act of 1948. This essentially covers units that employ 10 or more workers and use power and units that do not use power but employ 20 or more workers. Unregistered units on the other hand, refer to the industrial units that do not fulfill these criteria. In general, a larger share of registered manufacturing implies a predominance of organized industrial activity. In this sense, registered units may be viewed as constituting the organized industrial sector, while unregistered units may be viewed as constituting the unorganised sector of an economy. The shares of registered and unregistered industrial units in the overall manufacturing activities of the states of the region have been shown with the help of the following table 9.1.

Table 9.1 : Share of registered and unregistered manufacturing in GSDP in 2004-2005

(Figures in %)

States	Share of Registered Industrial Units	Share of Un-registered industrial units.
Arunachal Pradesh	Nil	100.00
Assam	80.0	20.0
Manipur	1.25	98.75
Meghalaya	54.64	45.36
Mizoram	25.78	74.22
Nagaland	48.61	51.39
Sikkim	41.56	58.44
Tripura	46.84	53.16
All India average	**65.86**	**34.14**

Source : *Indian States at a Glance, Pearson, 2005-06 & 2008-09.*

From the above table, it can be seen that of all the states of the region, Arunachal Pradesh had no registered industrial units in the state during 2004-2005. Contrary to the national economy as a whole, in all other states of the region, the predominance of the unregistered industrial units is widely seen. Thus, it can be said that the unregistered units of the region has so far played the major role in the industrial development of the region.

CHECK YOUR PROGRESS



Q 1: State whether the following statements are True (T) or False (F).

a) Of all the states of the region, the industrial sector of Arunachal Pradesh is highly organized.

b) In the recent times, a few large cement plants have been set up in Meghalaya.

Q 2: Do you think that the states in the region have predominance of registered industrial units in their industrial sectors? Justify your viewpoint. (Answer in about 60 words)

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Q 3: Do you think that NE region has large registered industrial units within 60 kilomiter

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9.4 EXTENT OF INDUSTRIAL DEVELOPMENT IN THE REGION

We have already mentioned that the Northeastern region of India is lagging behind in the process of industrialisation as compared to other states of the region. Traditionally, Assam has been the most industrialiesd economy of the region. Tea plantation and oil industry of the state are the prominent industries of the region since the British period. It has been felt that the region could not keep pace with other states of the country, especially in the post-independence period to develop the industrial sector. However, in recent times, a number of big industrial projects have come up in the region. For example, a number of cement, iron and steel projects have come up in Assam and Meghalaya. A major hydrocarbon project (Brahmaputra Cracker and Polymer Limited) is being executed in Assam. The state of Tripura is also well known for its rubber plantation industry. In fact, the state is the second largest producer in the country, next to Kerala.

Let us consider the following table 9.2 which shows the overall industrial scenario of the region (excluding Sikkim) in terms of number of industries, investment and employment generated in the NE States of India for the period 1999 to September, 2004. The table has been arranged in descending order based on the value of investment (column 3).

Table 9.2 : Number of Industries, Investment and Employment Generated in NE States of India (1999 to September, 2004)

States	No. of units	Investment (Rs. In crore)	% share among NE states	Direct employment generated
Assam	520	528.19	49.84	12422
Meghalaya	61	441.01	41.32	6056
Arunachal Pradesh	11	39.86	3.73	577
Tripura	34	31.58	2.96	665
Nagaland	46	19.64	1.84	439
Mizoram	4	4.00	0.39	300
Manipur	5	3.00	0.28	250
All NE States	681	1067.28	100.00	20709

Source : *Lok Sabha Unstarred Question No. 4720, dated 23.05.2006.*

Data available at : www.indiastat.com.

From the above table 9.2, it can be easily seen that Assam enjoys the lion's share in case of industrial units. It should be however noted that even when the number of industrial units is significantly less in Meghalaya as compared to Assam, the investment in the state is much closer to it. This has happened because of the fact that a number of medium and large industrial projects have come up in the state, especially in the sectors, viz., cement, lime, granite cutting & polishing, steel plants, mineral water, soft drinks, etc.

Let us now look at some more detail of the recent industrial scenario in the states of this region. Here, we shall try to focus on the registered factories of the individual states. Please note that the industrial scenario of the states of the region in terms of the registered small scale industrial (SSI) units will be discussed in the subsequent section

- **Arunachal Pradesh :** Industrial units in Arunachal Pradesh are mostly wood based and some agro-based units as well such as rice dehusking mills. Traditional crafts like carpet weaving, woven textiles and woven crafts also comprise an important industry segment in the SSI sector of Arunachal Pradesh. The state is lacking in industrial development. The state however also has a very prospecting tourism sector. A few recent studies conducted by reputed consultancy firms like Tata Consultancy Services and Indian Institute of Enterpreneurship, Guwahati have identified a number of industries which have very good prospects in the state, especially in the sectors like: agro based industry, horticulture based industry, plantation based industry, mineral based industry, tourism based industry, etc. According to such recent studies, in Arunachal Pradesh, there are 17 medium scale industries including one mini cement plant, one fruit processing unit, one tea industry and fourteen plywood industries in the state.
- **Assam :** Apart from tea, oil and coal, the industrial sector of the state includes industries like fibre blended polyester yarn mills, printing presses, plastic industries tyre rethreading units, saw mills and many steel fabricating units, etc. We would simply mention here that the total numbers of registered factories in Assam was

3319 at the end 2007. This was higher than the previous year's figure of 3182. The number of daily workers in these factories has also gradually increased to 1,14,233 in 2007.

- **Manipur :** Like other states of the region, Manipur is rich in natural resources. But due to its difficult terrain, inadequate infrastructural facilities and varying climatic conditions, the state has not been able to achieve marked progress in industrialisation of its economy. In fact, it's very pathetic to realise that at present, there are no industries worth mentioning in the state, except the traditional khadi and village industries, handlooms and handicrafts. We shall look at the SSI sector of the state in section 9.5 of this unit.

  Many industries in Manipur are state-owned. They are set up to cater to the local market. The opening up of the Myanmar border for external trade presents a scope for the existing industrial units as well as for the establishment of new and export oriented units. Manipur is also famous for its Handloom and Handicraft products. The contribution of the manufacturing sector to the total gross state domestic product at current prices is found to be only 6.26 percent according to the advance estimates for the year 2007-08. (Source: Economic Survey, Manipur 2008-2009)

- **Meghalaya :** Traditionally, the industrial sector in Meghalaya has been based on wood and wood-based industries. The mining sector also contributes significantly to its SDP. Most of the private entrepreneurs who have coal and limestone deposits in their land holdings, extract the minerals and send it to Assam and Bangladesh for sale. Thus, in the absence of downstream industries in Meghalaya little value-addition takes place in the state.

  However, as we have already mentioned, a number of medium and large industrial units have come up in the state recently. The basic areas being cement, limestone, iron and steel, etc. At the same time, it should be noted that many of the projects relating to the production of cement, iron and steel in the state have also been included as small scale industries (SSIs). We shall discuss about them in section 9.5 of this unit.

- **Mizoram :** We have already mentioned that Mizoram is an industrially backward state of the region. The contribution of Industrials sector (including both registered and unregistered units) hardly account for 1 percent of its GSDP. Handloom weaving and black smithy are the traditional activities. The state has witnessed a low scale of migration of workforce from agriculture to, non-agriculture sector. Popular activities like tailoring, furniture making, automobile repairs, bakery, handloom weaving and blacksmithy account for more than 80% of the total number of enterprises/units in the state. Most of these are in and around the Aizawl City and Lunglei town. We shall discuss the SSI sector of this state later in section 5.5 of this unit.
- **Nagaland :** Considering the earlier table 9.1, we can state that the state is in somewhat better position, in terms of the share of registered industrial units in the state, which is nearly 50 percent (48.61%), as compared to the states of the region like Arunachal Pradesh, Manipur and Mizoram. But, the state lags behind to record optimum industrial growth. As per latest data available, the number of permanent registered. MSME (Micro, Small and Medium Enterperises) in the state stood at 704 units, which generated employment for 13,150 persons in the state. (Source: Statistical Handbook of Nagaland 2008).
- **Sikkim :** Sikkim has a very good prospect in its tourism sector. The state was able to attract more than 9,000 foreign tourists to the state in 2007-2008. The manufacturing sector of the state is not however properly developed. The number of entrepreneurs seeking provisional registration in the state upto 30.11.2007 was 493 and those seeking permanent registration were 184. A few public sector industries have also been set up in the state in the sectors like fruit preservation, tea plantation, jewel (used in wrist watches) etc. The major private industries in the state are in the sectors like healthcare & pharmaceuticals, steel, processed food etc. (Source: Sikkim, A Statistical Profile 2006-07)

- **Tripura :** Owing to inadequate infrastructural facilities, industrialisation has not taken the much needed pace. As we have already mentioned, the state is the second largest producer of rubber in the country, but it lags behind in other industrial sectors. So far, the Oil and Natural Gas Corporation (ONGC) has been the major player to exploit the natural gas potential of the state. Revenue earned from natural gas during 2008-2009 was Rs. 9.34 crore. The state has also tremendous potentiality for bamboo based industries including traditional handloom and handicraft industries. Moreover, the state is a traditional tea growing state, which has ample scope for improvement by adopting modern technology. The official trade between Tripura and neighbouring Bangladesh started since 1994-1995 need to be developed for exploring the greater economic prosperity. (Source: Economic Review of Tripura, 2008-2009).



CHECK YOUR PROGRESS

Q 4: State whether the following statements are True(T) or False(F).

(a) Nagaland has generated significant trade along the Myanmar border. (T/F)

(b) Coal is an established industry in Mizoram. (T/F)

Q 5: Choose the correct option from the alternatives marked in italic. The opening up of the Myanmar border for external trade has opened up wider scope for the existing industrial units in *Assam/ Meghalaya/ Manipur/Tripura*.

Q 6: Manipur is very rich in natural resources, but it still lags behind in industrial development. Do you support this view? Justify your position in about 50 words.

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9.5 DEVELOPMENT OF SMALL SCALE INDUSTRIES IN THE REGION

Small-Scale Industries are those industries whose investment in fixed assets such as plants and machineries does not exceed Rs.100.00 lakhs (Rs.1 crore). The investment limit for tiny units continues to be Rs.25.00 lakhs. Investment in plant and machinery in respect of industry related Small-Scale Service and Business Enterprises (SSSBE) was increased to Rs.10.00 lakhs from Rs.5.00 lakhs. Now, let us look at the trend of growth of SSIs in the different states of the region.

- **Arunachal Pradesh :** Apart from the 17 medium scale industries, there were 2,526 small scale industries in the state. The major industries are sawmills, plywood (these two trades however have been stopped by law), rice mills, fruit preservation units and handloom handicrafts. Thus, most of the industries in the state are based on forest products such as timber, veneer and plywood. Apart from forests based industries, there are industries in tea, cement, and petrochemicals. The major industries in Arunachal Pradesh are Handloom & Handicraft and Sericulture. Total production of raw silk and cocoons during 2002-2003 was 14, 829 kg and 34,750 kg respectively. However, the recent study conducted by the TCS as has been already referred to, asserts that the state has more than 3,000 tiny, village and SSI units.
- **Assam :** The Small Scale Industries have played a vital role in the process of industrialization and employment generation in the State. As on 31st March, 2001, there were 14,453 SSI units in the state. In the next year, (i.e., during 2001-2002) another 2528 new SSI units were registered in the state. Thus, by 31st March, 2002, there were 16,981 SSI units in the state. They altogether produced marketable products worth Rs. 16,013.81 lakh during the year and employed 11,538 persons. During 2007-2008, another 1,692 SSI units were registered in the state. This increased the value of marketable products worth Rs. 44,720.97 lakh and employed 10,471

persons during the year. During these years, the SSI units in the state have been basically established in the areas like engineering, textile, agro-based, mineral, forest, electronic, chemical, rubber/plastic etc. (Source: Economic Survey Assam 2008-09).

- **Manipur :** According to the definition of SSIs as above, all the industrial units except those of cottage and village industries in Manipur belong to the category of small-scale industries. For accelerating the growth SSI unit in the state, the Government has simplified the registration procedures of SSIs. Such efforts have yielded some positive results in the state, as the number of SSI units has gradually increased from 9635 units during 2000-01. By the end of March, 2006 the number of registered permanent SSI units, including both SIDO (Small Industries Development Organisation) and NON-SIDO was 10,264. These units have been set up with an investment of Rs.43.27 crore in plants and machineries. They have provided employment to 53,719 persons of the state and have produced marketable products worth Rs.183.72 crore during the year.

  The traditional cottage industries in the state include – handloom (the largest cottage industry in the state), handicrafts and khadi and village industries. After the opening up of the Indo-Myanmar Border Trade on 12th April, 1995, the prospects of the industrial sector of the state has become brighter. In the year 2004-05, the value of export and import was Rs.6.15 crores and Rs.5.27 crores respectively. In the last 3-4 years, emphasis has been laid on setting up food processing and bamboo processing industrial units in the state. (Source: Economic Survey Manipur 2008-09).

- **Meghalaya :** We have already stated that Meghalaya is one of the industrially developed states in the region. The state has recorded a steady increase in the number of SSI units in the recent years. During 200-2001, the number of SSI units in the state was 3803. These units generated employment for 21,416 persons during the year. Number of such SSI units has increased to 5132 during 2004-

2005. These units provided employment to 28,849 persons in the state. The number of SSI units has further increased to 6,511 in 2007-2008. The persons employed in the SSI units have also increased to 36,193 persons in the state during this year.

Most of the SSI units in the state have come up in the areas like: betel nut preservation, tailoring, cane and bamboo works, steel based industries, wooden furniture, lime making, bakery products, cement, blacksmith etc. (Source: The Statistical Abstract of Meghalaya, 2009).

- **Mizoram :** Mizoram continues to remain an industrially backward State. The contribution of Industry, when both registered and unregistered units are taken into consideration, hardly accounts for 1 percent of the GSDP.

  As per the latest Fifth Economic Census held in the year 2005, there were 47,730 enterprises engaged in different economic activities other than crop production and plantation in Mizoram with 1,06,706 persons working in them. The Census reveals that the number of enterprises has increased from 24,943 in 1998 to 47,730 in 2005 which is 91.36 per cent increase. Out of the total 47,730 enterprises, as much as 18,016 number of enterprises (37.75%) were located in the rural areas and 29,714 (62.25%) were in the urban areas. Again, out of the total enterprises, 10,782 enterprises were based on the agricultural sector, while the remaining 36,948 enterprises were non-agricultural in nature. (Sources: http://desmizo.nic.in/EconomicCensus.htm, Statistical Handbook of Mizoram, 2008, http://desmizo.nic.in/EconomicCensus.htm).

- **Nagaland:** In recent times, the SSI sector of Nagaland has shown some positive growth. During 2003-2004, 573 new SSI units were registered in the state. They generated employment opportunities to 5,397 persons in the state. During the next year, 569 new SSI units were registered in the state, and they generated employment to 6,318 persons in the state. During 2006-2007, 717 new SSI units were registered in the state and they generated employment oppor-

tunities to 13,452 persons in the state. (Source: Statistical Handbook of Nagaland 2008).

- **Sikkim :** As we have already mentioned, the industrial scenario of Sikkim is not at all encouraging. As on 31st March, 2004, there were 367 provisionally registered SSI units and 363 permanently registered SSI units, and 3 cottage industries and 3 medium scale industries and 3 PSUs in the state. Again, out of all these, 87 were nonfunctioning. (Source: http://www.sikkim.gov.in/asp/Miscc/Sikkim%20in%20Brief%202005print.pdf).
- **Tripura :** Keeping in view its potential, the status of the SSI sector of Tripura is also not quite encouraging. However there has been some progress in the state. During 2002-2003, 562 SSI units were set up with provisional registration, while 51 units came up with permanent registration. During 2007-2008, 422 new SSI units were set up with provisional registration, while 127 units came up with permanent registration. As a whole, by the year 2007-2008, there were 4,253 provisionally registered and 358 permanently registered SSI units in the state. (Source: Economic Review of Tripura, 2008-2009).



CHECK YOUR PROGRESS

Q 7: State whether the following statements are True(T) or False(F).

(a) Nagaland has the best performed SSI sector in the region. (T/F)

(b) The SSI sector of Arunachal Pradesh is basically based on steel & iron products.

Q 8: Give a brief account of the SSI sector of Arunachal Pradesh. (Answer in about 50 words)

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9.6 INDUSTRIAL DEVELOPMENT IN THE REGION : THE FUNDAMENTAL PROBLEMS AND THE PROSPECTS FOR THE REGION

9.6.1 Fundamental Problems of Industrial Development in the Region

The industries of the Northeastern region are facing a number of problems. They are:

- **Lack of infrastructural facilities :** The industries in this region are facing the problem of lack of infrastructural facilities such as proper transportation and communication facilities. It restricts the growth of large- scale industries.
- **Inefficient manpower :** Manpower plays an important role in any industry. The inefficiency of manpower due to illiteracy, ignorance, lack of training facilities etc. have affected the growth of industries in the region.
- **Lack of credit facility :** Another major problem of small-scale industries is the lack of credit facilities. Before nationalisation, commercial banks were not interested in providing finance to this sector. This situation has changed after nationalisation of commercial banks but it is far from satisfactory level.
- **Old and obsolete machineries :** The small- scale industries are facing the problem in production due to old and obsolete machineries. They are unable to compete with the products of large-scale industries.
- **Lack of marketing facilities :** The industries of the region are also facing the problem of marketing their products. There is lack of organised marketing facilities for these industries. They have to depend on the middlemen for selling their products. In many cases the market for their products remains untapped.

- **Old designs :** The small- scale industries are continuing with the age old designs. The products are unable to meet the modern demand.
- **Industrial sickness :** Industrial sickness is another major problem faced by the industries in this region. The major industries are facing losses due to inefficient management.
- **Poor law and order situation :** For proper development of industries, a stable and peaceful environment is essential. But this region is facing the problem of poor law and order situation which restricts the growth of industries.

9.6.2 Prospects of Proper Industrial Development in the Region

The important prospects from proper development of the industrial sector in the region are as follows :

- **Creation of employment opportunities :** Most of the industries in the region, especially the small- scale industries are labour intensive. Thus, these units can provide more employment opportunities. Similarly, the proper development of large-scale industries may also play an important role in providing employment opportunities. As the region is facing the problem of unemployment both in urban and rural area, these industries are essential for the region
- **Low capital investment :** Small- scale industries need lower capital investment as compared to large- scale industries. As capital is scarce in this region, small- scale industries are most suitable for this region.
- **Creating a Self- sustained economy :** The development of large- scale industries will help the region in attaining self sufficiency. This sector has higher capacity for saving and investment as well as for generating employment opportunities.
- **Quick return :** In case of small- scale industries, there is

less time gap between capital investment and production of goods. Thus, it brings quick return to the businessmen.

- **Reduction of pressure on land :** People of this region excessively depend on agriculture. The development of small-scale industries will help in diverting the excess workforce to this sector.
- **Development of entrepreneurial skill :** The development of this sector will result in change of attitude of people of this region. People will develop an entrepreneurial skill, which will help in identifying new areas of investment. This will help in the economic development of the region.
- **Growth and stability :** This region is agriculture based. But agriculture is seasonal in nature and depends on rainfall. The growth of industries will reduce the dependence on agriculture, which will help in the development of the region.



CHECK YOUR PROGRESS

Q 9: State any two fundamental problems of industrial development in the region. (Answer in about 50 words)

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Q 10: How will the industrial development affect employment generation in the region? (Answer in about 50 words)

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9.7 NORTH EAST INDUSTRIAL AND INVESTMENT PROMOTION POLICY (NEIIPP), 2007 (IMPORTANT FEATUES)

The Government of India has approved a package of fiscal incentives and other concessions for the North East Region, in the framework of the 'North East Industrial and Investment Promotion Policy (NEIIPP), 2007', which came into effect from 1.4.2007. The major features of this policy are as follows:

- **Coverage :** The NEIIPP, 2007 includes Sikkim, which was left behind in the earlier North East Industrial Policy (NEIP), 1997 announced by the GOI.
- **Duration :** All new units as well as existing units which go in for substantial expansion and which commence commercial production within the 10 year period from the date of notification of NEIIPP, 2007 will be eligible for incentives for a period of ten years from the date of commencement of commercial production. Substantial expansion means 'an increase by not less than 25% in the value of fixed capital investment in plant and machinery for the purpose of expansion of capacity/modernization and diversification'.
- **Neutrality of location :** Incentives will be available to all industrial units, new as well as existing units on their substantial expansion, located anywhere in the North Eastern Region.
- **Excise Duty Exemption :** 100% Excise Duty exemption will be continued, on finished products made in the North Eastern Region, as was available under NEIP, 1997.
- **Income Tax Exemption :** 100% Income Tax exemption will continue under NEIIPP, 2007 as was available under NEIP, 1997.
- **Capital Investment Subsidy :** Capital Investment Subsidy will be enhanced from 15% of the investment in plant and machinery to 30% and the limit for automatic approval of subsidy at this rate will be Rs.1.5 crores per unit, as against Rs.30 lakhs as was available under NEIP, 1997.

- **Interest Subsidy :** Interest Subsidy will be made available @ 3% on working capital loan under NEIIPP, 2007
- **Comprehensive Insurance :** New industrial units as well as the existing units on their substantial expansion will be eligible for reimbursement of 100% insurance premium.
- **Negative List :** The following industries will not be eligible for benefits under NEIIPP, 2007:

  All goods falling under Chapter 24 of the First Schedule which pertains to tobacco and manufactured tobacco substitutes.

  - Pan Masala as covered under Chapter 21 of the First Schedule
  - Plastic carry bags of less than 20 microns as specified by Ministry of Environment and Forests
  - Goods falling under Chapter 27 of the First Schedule produced by petroleum oil or gas refineries.
- **Incentives for Service/other Sector Industries :** Incentives under NEIIPP, 2007 will be applicable to the following service sector activities/ industries:
  - Hotels (not below Two Star category), adventure and leisure sports including ropeways;
  - Medical and health services in the nature of nursing homes with a minimum capacity of 25 beds and old-age homes;
  - Vocational training institutes such as institutes for hotel management, catering and food crafts, entrepreneurship development, nursing and para-medical, civil aviation related training, fashion, design and industrial training.
- **Incentives for Bio-technology industry:** The biotechnology industry will be eligible for benefits under NEIIPP, 2007 as applicable to other industries.
- **Incentives for Power Generating Industries:** Power Generating plants will continue to get incentives as governed by the provisions of Section 81A of the Income tax Act.
- **Transport Subsidy Scheme:** The Transport Subsidy Scheme would continue beyond 31.3.2007, on the same terms and conditions.

- **Nodal agency:** The North East Industrial Development Finance Corporation (NEDFi) will continue to act as the nodal agency for disbursal of subsidies under NEIIPP, 2007. The new policy ensures eco-friendly development in the North East.



CHECK YOUR PROGRESS

Q 12: What provisions have been made in the NEIIP 2007 with regard to excise duty and income tax exemption? (Answer in about 50 words)

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Q 13: Which items have been included in the negative list of NEIIP, 2007? (Answer in about 60 words)

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The department of industrial policy and promotion (DIPP) along with Neti Aayog has redrafted the earlier industrial policy and come up with the new North East Industrial and Investment Promotion Policy . the Modi Government wants to promote development in the NER without disturbing regional ecological balance. Industries which are environmentally sustainable such as ago-processing, horticulture, floriculture and plantation crops will get focus in this policy this scheme will promote small and medium scale industries which will add to Job creation.



9.8 LET US SUM UP

- NER as a whole is placed amongst the poorest regions in the country.
- All the states in NER have much higher levels of population below poverty line [35.13%] as compared to the national average (26.1%) [2000-01].
- The NER continues to be a net importer of food grains.
- The states in the region hardly have any industrial base, except Assam.
- Tea and petroleum sector dominates the industrial scenario of Assam.
- North East Industrial and Investment Promotion Policy (NEIIPP), 2007, became effective from 1.4.2007.
- The new policy endeavours to achieve a eco-friendly development in the North East.
- The unemployment rate of the NER is close to 12%, against the national average of 7.7% [1999-00].
- The transport system of the North-Eastern Region is very backward.
- The characteristic feature of transportation in the region is in its being costlier in terms of money, time and continuity.
- Assam has the largest capacity of 537 MW, mainly based on the thermal technology.
- In the NER, the average length of rail route per 100 sq. km. area is about 0.77 km.
- In respect of transportation system, the North-East region is very backward.



9.9 FURTHER READINGS

1) P. K. Dhar : *The Economy of Assam (Including Economy of North East India)*, Kalyani Publishers, 18th Edition, 2007.

9.10 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q No 1: (a) False (b) True

Ans to Q No 2: Registered manufacturing refers to those units that correspond to the registration criteria set by sections 2m(i) and 2m(ii) of the Factories Act of 1948. This essentially covers units that employ 10 or more workers and use power and units that do not use power but employ 20 or more workers.

Ans to Q No 3: It is not true that the industrial sector of the NE region has mostly registered industrial units. In most of the states of the region, unregistered units form the majority. Contrary to the national economy as a whole, in most of the states of the region, the predominance of the unregistered industrial units is widely seen.

Ans to Q No 4:. (a) False (b) False

Ans to Q No 5: (a) Arunachal Pradesh (b) Manipur

Ans to Q No 6: It has been rightly said that in spite of being very rich in natural resources, Manipur still lags behind in industrial development. Basically due to its difficult terrain, inadequate infrastructural facilities and varying climatic conditions, the state has not been able to achieve marked progress in industrialisation of its economy.

Ans to Q No 7: (a) Manipur (b) Meghalaya

Ans to Q No 8: (a) Arunachal Pradesh (b) Manipur

Ans to Q No 8: The major industries in Arunachal Pradesh are Handloom & Handicraft and Sericulture. Total production of raw silk and cocoons during 2002-2003 was 14,829 kg and 34,750 kg respectively. However, the recent study conducted by the Tata Consultancy Services asserts that the state has more than 3,000 tiny, village and SSI units.

Ans to Q No 10: (a) True (b) False

Ans to Q No 11: Industrial sickness is a major problem faced by the industries in the NE region. For example, out of approximately only

800 industrial enterprises in Sikkim 87 were nonfunctioning. Similarly, most of the industrial units set up in Assam, especially in the co-operative sector, have become sick. Prevalence of sick industrial units adversely affects the industrial sector of that economy. It creates unemployment, and de-motivates the entrepreneurial spirit.

Ans to Q No 12: The NEIIP, 2007 has defined the 'substantial expansion' as *'an increase by not less than 25% in the value of fixed capital investment in plant and machinery for the purpose of expansion of capacity/modernization and diversification'.*

Ans to Q No 13: The industries listed in the negative lists of NEIIP, 2007 will not be eligible for the benefits mentioned therein. Among those, the following two are important:

- Pan Masala as covered under Chapter 21 of the First Schedule
- Plastic carry bags of less than 20 microns as specified by the Ministry of Environment and Forests.



9.11 MODEL QUESTIONS

Short Questions (Answer each question in about 150 words)

Q 1: Classify the industries of the North East.

Q 2: Discuss the shares of registered and un-registered industrial units.

Q 3: Prepare short notes on the industrial sector of:

a) Arunachal Pradesh b) Manipur

c) Mizoram d) Meghalaya

Essay-type Questions (Answer each question in about 500 words)

Q 1: Discuss the role of small-scale industries in the North East region.

Q 2: Discuss the important provisions of the NEIIP, 2007.

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UNIT 10 : BORDER TRADE AND LOOK EAST POLICY

UNIT STRUCTURE

10.1 Learning Objectives

10.2 Introduction

10.3 Prospects of border trade

10.4 Look East Policy

10.5 Act East Policy

10.6 Difference between Look East Policy and Act East Policy

10.7 Let Us Sum Up

10.8 Further Reading

10.9 Answers to Check Your Progress

10.10 Model questions

10.1 OBJECTIVES

The aim of 'Act East Policy' is to promote economic co-operation, cultural ties and strategic relationship with countries in the Asia-Pacific region. It was initiated in 1991 and enacted during the government of Prime Minister Narasimha Rao (1991 – 1996). After going through this unit, you will

- Know what is border trade
- Learn about the prospects of border trade with neighbouring countries
- Understand the factors leading to the Look East Policy
- Know the details about the Act East Policy

10.2 INTRODUCTION

It is known to all that ‘trade’ is considered as an engine of economic growth. As we know trade means exchange of goods from one region to another. In the same way, border trade refers to exchange of goods across borders. “Border trade is exchange of commodities from a bi-

laterally agreed list by people living along both sides of the international border. It is a part of normal legal trade that flows through standard export/import frameworks of the nation". (Chutiya,2005). Border trade is beneficial in areas where crossing borders is relatively easy and products are relatively cheaper in one place than another.

NER is an important place for border trade as 98 percent of the NER are connected by international boundaries covering the countries like China, Bhutan, Myanmar and Bangladesh. This region can be built as a border trade hub of India with South Asian Countries if proper policy is adopted by the Government. In this regard, Look East Policy (LEP), later on known as Act East Policy (AEP) can play an important role. LEP was enacted during the time of Prime Minister Narasimha Rao (1991 – 1996) and pursued by Prime Ministers Atal Bihari Vajpayee (1998 – 2004) and Manmohan Singh (2004 – 2014). Prime Minister Narendra Modi is taking the policy to a new level and has renamed it as the Act East Policy. India's Act East Policy was unveiled at the 12th ASEAN – India Summit in 2014 held in Nay Pyi Taw. In his Opening Statement on the occasion, Modi had said : "A new era of economic development, industrialization and trade has begun in India. Externally, India's 'Look East Policy' has become 'Act East Policy'". (Available at http://mea.gov.in/aseanindia).

10.3 PROSPECTS OF BORDER TRADE

Before going into the details of the Look East Policy and the Act East Policy, we will discuss here about the different aspects of Border Trade. The prospects of border trade of NER of India are as follows:

- **Development of Infrastructure -** Development of infrastructure is the main engine of economic growth of a nation. The development of economic infrastructure such as transport, communication, power irrigation etc in the NER is still at the rudimentary stage. Therefore if Border Trade exists between NER and neighboring countries, then along with economic infrastructure, social infrastructure through increase in human productivity and efficiency with good education

and health will also increase. Through this, the economy of NER can develop tremendously. Thus, better implementation of AEP will result not only in an increase in border trade but will also lead to infrastructural development of the region.

- **Development of the Tourism Sector -** The whole of NER is famous for its bio-diversity and heritage sites. Development of National Parks and Heritage Sites like Majuli, Kaziranga, Pabitara, Manas, Haflong, Jatinga, etc. of Assam as tourists' spots is likely to increase tourist inflow. If tourist potential areas of NER are fully developed, within a few years, the region will receive more tourists than Singapore and Bangkok, because almost all the western tourists visiting these places would just need to drive a few miles more to enjoy the scenic and cultural beauties of NER. This will automatically develop the economy of entire NER.
- **Industrial Development -** Till today there is no large scale industry in entire NER. But due to the location advantage of NER, it can emerge as a business place for both SAARC and ASEAN countries. In certain areas of NER, large warehouse with business offices of export and import can be built up. Again, setting up of hydro electricity power projects in the region is likely to benefit the entire country since there exists a number of rivers in the NER. In addition to this, tea industry should be developed so that it emerges as the growth of several auxiliary industries like plywood, saw-mills, coal, mining, etc. Assam produces about 50 percent of the country's total tea production. Thus it can find new opportunities for exporting its product to the ASEAN countries, if regional economic co-operation through the introduction of AEP takes place at a fast rate.
- **Utilisation of Forest Resources -** Not only Assam, but entire NER of India is rich in forest resources. Forests of NER abound in various medicinal plants, which can be exploited successfully for development of the entire region. Bamboo, along with Jatropha from which bio-diesel can be produced, can be effectively used as a substitute of crude-oil. India can take advantage of Jatropha and reduce its import

cost in the process. This will lead to a saving of foreign exchange.

- **Establishment of Markets -** The most important prospect of border trade is the establishment of market frame work in the entire region. Due to the Geo political characteristics of the NER, cross border markets are likely to be the most cost effective for both export of local products and imports of consumption products at the cheapest prices.
- **Increase in Employment Opportunities -** Border trade with different countries through the NER will unleash a lot of employment potentials in the different sectors of the economy.
- **Development of Human Capital -** As mentioned above, along with physical infrastructure, human capital formation also increases with better health and educational facilities. As we know China is developed in this sector whereas Myanmar and Bangladesh are underdeveloped. With the development of cross border trade, there will be a flow of human resources from NER and other parts of India to the less developed countries.
- **Women Empowerment -** Empowerment of women also takes place with cross border trade between NER and bordering countries. When cross border trade takes place, there is an increase in employment opportunities and women get engaged in various economic activities. The tourism sector also develops due to cross border trade, resulting in employment of women in this sector too. Thus, economic empowerment of women takes place due to development of trade.
- **Promotion of Textile Industries -** NER is a particular area where all the four varieties of silk, muga, eri, tassar and mulberry are grown and produced. Export of products of silk produced in the entire region can act as a source of foreign currency which will boost the economy of this region. Since there is a greater scope for the development of these products in NER, various industries related to different types of silk can be set up. Thus, border trade has huge potential and development scope for India's NER.



CHECK YOUR PROGRESS

Q 1: Define border trade. (Answer in about 20 words)

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Q 2: How can border trade promote industrial development of NER. (Answer in about 70 words).

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10.4 LOOK EAST POLICY

The concept of Look East Policy has occupied an important place in India's international relations. It is not a mere economic policy but a strategic shift in India's vision of the world. This policy was launched in 1991 during the Government of Prime Minister P.V Narashimha Rao (1991-96) and Manmohan Singh (2004 – 2014). Prime Minister Narendra Modi is taking the policy to a new level and has renamed it as the Act East Policy.

- **Objectives of LEP:**

  The main objectives of LEP are-

  - Free trade agreements.
  - Sustained economic growth
  - Development of NER of India - connectivity with South Asian countries through infrastructure development, viz., roadways, railways, airways etc.
  - To counter balance China's influence in this region.
  - Diplomatic engagement with South East Asian countries.
  - LEP emerged out of the changed international relations in the early 1990s and economic stagnation and political turmoil within

the country. The impact of LEP has been favourable to India. This policy correctly identified NER as the gateway to the South East Countries and it is one of the major initiatives taken by Government of India in connection to the NER of India.

- **Approaches of LEP:**

The main philosophy of this policy is to create a close economic relationship with its neighbouring countries. This policy can be more clearly understood by its three ideas:

- To renew political relationship and understanding with ASEAN countries.
- To achieve more economic cooperation with other countries in sectors like tourism, trade and commerce, service and technology, transport and communication etc.
- To strengthen the defence ties with the neighbouring countries.

The success of whole LEP entirely depends on the development of NER as it is through the NER of India that trade will take place. But the reality is that, although the NER has rich natural resources, due to some peculiar geo-political characteristics, NER do not find a place as one of the developed regions of mainstream India. There is enormous potential for development of NER through LEP.

10.5 ACT EAST POLICY

The Act East policy is nothing but the new name of LEP. The main idea of this policy is not emphasis on thinking, or evaluating but in acting, doing and implementing. Thus the change in name of LEP to AEP has led to scholars and policy makers to debate on the discourse of international trade. This changing approach is mainly reflected from the active engagement of India's relationship with countries of South East Asia and Asia Pacific.

The ruling BJP lead NDA Government has been trying to bridge the gap between regional developments of Indian states. As the NER of

India is likely to benefit from LEP, the Modi Government is trying to provide new energy in India, more particularly in NER through involvement of NER in economic, political and security domain. This is really a major effort of Modi Government.

As in the LEP, in AEP also, NER has a vital role. This policy gave an interlink between NEI and ASEAN regions. To uplift NER, number of projects between NER and ASEAN regions are implemented through AEP. For example Asian Highway, Asian Railways, Natural Gas Pipeline, etc. The project such as the Kaladan Multi-Model Transit Transport and Road links in Mizoram has immense potential to give new strength to Act East policy. AEP aims at promoting economic revival through implementation of india –ASEAN favourable trade agreement (FTA) in services and investment and strategic cooperation to fight terrorism, freedom of navigation, maritime security and defence cooperation.



CHECK YOUR PROGRESS

Q 3: Name two factors that led to the setting up of LEP. (Answer in around 50 words).

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Q 4: Briefly discuss the Act East Policy. (Answer in around 70 words).

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10.6 DIFFERENCE BETWEEN LEP AND AEP

As you know, the Act East Policy was launched by Prime Minister Narendra Modi at the 12th ASEAN– India Sumit at Nay Pyi Taw, Myanmar, in November 2014. The Act East Policy is the successor to the Look East Policy, which was launched in 1992 by the then Prime Minister Narasimha Rao under different geopolitical and economic circumstances.

The Look East Policy was formulated to strengthen ties between India and the ASEAN economies. At that time, India was facing a crisis due to the license permit raj put in place after Independence and the oil shocks of 1970s and 1980s. The end of the Cold War and disintegration of the Soviet Union in the 1990s gave India an opportunity to reach out to South East Asia and establish historical, cultural and civilizational linkages with the region.

The LEP recorded impressive growth for 20 years after its inception. India became a sectoral partner of ASEAN in 1992 and a dialogue partner and member of the ASEAN Regional Forum in 1996. In 2002, India and ASEAN entered into a summit partnership and mooted a free trade agreement (FTA) in 2003 which led to a bilateral deal in 2009. This led to an impressive gain in bilateral trade. However, LEP could not maintain its momentum after 2012.

The NDA government outlined the Act East Policy in November 2014 and put in efforts to revive and reinvigorate India's relations not only with ASEAN but also with Korea (North & South), Australia, New Zealand, Bangladesh and Fiji and Pacific Island.

There has been a tremendous expansion of India's trade with bordering countries of NER in recent times. But the real fact is that it has no impact on NER's economy as most of this trade expansion is through seaports. Therefore, for development of the NER, and to reap the benefits of this policy, necessary infrastructure and trade permit, custom's rule within the region should be developed properly.



10.7 LET US SUM UP

- Border trade refers to exchange of goods across borders. It is beneficial in areas where crossing borders is relatively easy and products are relatively cheaper in one place than another.
- NER is an important place for border trade as 98 percent of the NER are connected by international boundaries covering the countries like China, Bhutan, Myanmar and Bangladesh.
- NER can be built as a border trade hub of India with South Asian Countries if proper policy is adopted by the Government.
- In this regard, Look East Policy (LEP), later on known as Act East Policy (AEP) can play an important role.
- The concept of Look East Policy has occupied an important place in India's international relations. It is not a mere economic policy but a strategic shift in India's vision of the world.
- This policy was launched in 1991 during the Government of Prime Minister P.V Narashimha Rao (1991-96) and Manmohan Singh (2004 – 2014). Prime Minister Narendra Modi is taking the policy to a new level and has renamed it as the Act East Policy.
- AEP aims at promoting economic revival through implementation of India –ASEAN favourable trade agreement (FTA) in services and investment and strategic cooperation to fight terrorism, freedom of navigation, maritime security and defence cooperation.



10.8 FURTHER READING

1) Surjya Chutia, (2015): *Prospects of Border trade for NER of India with South Asian countries,* International Journal of Research in Economic and Social Science, V-S, issue 10

2) Bijoy Gogoi,(2018):Act (Look) *East Policy and Geo-Political Significance of North East India (NEI)*. Sub-Regional Connectivity

Trade and Growth-The Case for North-East India, Published by Dept. of Economics. D. K. College,Mirza



10.9 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q No 1: Border trade refers to exchange of goods across borders. It follows a bi-laterally agreed list by people living along both sides of the international border to carry on trade.

Ans to Q No 2: Though there is no large scale industry in entire NER, it can emerge as a business place for both SAARC and ASEAN countries. In certain areas of NER, large warehouse with business offices of export and import can be built up. Again, setting up of hydro electricity power projects in the region is likely to benefit the entire country since there exists a number of rivers in the NER. In addition to this, tea industry can be developed so that it emerges the growth of several auxiliary industries like plywood, saw-mills, coal, mining, etc.

Ans to Q No 3: The two main objectives of LEP are-

- Development of NER of India - connectivity with South Asian countries through infrastructure development, viz., roadways, railways, airways etc.
- To counter balance China's influence in this region.

Ans to Q No 4: The Act East policy is nothing but the new name of LEP. The main idea of this policy is not emphasis on thinking, or evaluating but in acting, doing and implementing. This changing approach is mainly reflected from the active engagement of India's relationship with countries of South East Asia and Asia Pacific. The ruling BJP lead NDA Government has been trying to bridge the gap between regional developments of Indian states. As the NER of India is likely to benefit from LEP, the Modi Government is trying to provide new energy in India, more particularly in NER through involvement of NER in economic, political and security domain.



10.10 MODEL QUESTIONS

Short Questions (Answer each question in about 150 words)

Q 1: Name the countries with which NER share a common boundary.

Q 2: What are the prospects of border trade?

Q 3: Briefly discuss the elements of the Look East Policy.

Essay Type Questions (Answer each question in about 500 words)

Q 1: Describe the strategic importance of the NER to enter into international trade.

Q 2: Discuss the situation which led to the adoption of the Act East Policy.

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UNIT 11 : BANKING AND FINANCIAL INCLUSION IN NER-PERFORMANCE, PROSPECTS AND CHALLENGES

UNIT STRUCTURE

11.1 Learning Objectives

11.2 Introduction

11.3 Performance, Prospects and Challenges of Banking Sector in NER

- 11.3.1 Performance of Banking Sector in NER
- 11.3.2 Prospects of Banking Sector in NER
- 11.3.3 Major Challenges of Banking Sector in NER

11.4 Performance, Problems and Prospects of RRBs in NER

- 11.4.1 Performance of RRBs in NER
- 11.4.2 Problems of RRBs in NER
- 11.4.3 Prospects of RRBs in NER

11.5 Let Us Sum Up

11.6 Further Reading

11.7 Answers to Check Your Progress

11.8 Model Questions

11.1 LEARNING OBJECTIVES

After going through this unit, you will be able to–

- Know the current scenario of financial inclusion in North East India (NER).
- Highlight the major challenges facing the financial sector,
- Give suggestions to improve the growth of financial sector in NER.
- Study the performance and prospects of banking sector especially the Regional Rural Banks that is rendering services in NER.

11.2 INTRODUCTION

In modern times financial services play a very important role in the process of economic development. Among the financial services, the banking sector is the vital one because the ultimate goal of an economy, that is, economic development is largely dependent on the effective and efficient operations of banking sector services. It is the efficiency of banks that helps to a great extent in mobilizing savings and investing the same into profitable channels of investment in order to uplift the economic conditions of the people in the region. It is necessary to encourage people to deposit their surplus funds with the banks. Banks mobilize deposits by offering attractive rates of interest and thus convert savings into active capital. Thus, the banks play an important role in capital formation in a country which leads to economic growth.

Realizing the importance of banking system and urgency of financial inclusion, Prime Minister, Narendra Modi, took an initiative on 28th August, 2014 by launching Pradhan Mantri Jan Dhan Yojana (PMJDY) through which the poor can become more financially confident and allowing all individuals (irrespective of rural or urban area) the right to have their own bank account and insurance coverage. According to the data issued by Finance Ministry, till September 2014 around 40 million bank accounts have been opened under the PMJDY since the scheme was launched.In the seven states of the Northeast, there were 1,22,91,880 Jan Dhan accounts as on November 9, 2014 with deposits amounting to Rs 2,571.95 crore. Assam has the highest number of Jan Dhan accounts in the region while Arunachal Pradesh has the lowest.

Against this background, there is a need for a thorough review of the existing pattern of the banking development in NER. In this chapter, an attempt has been made to look into the various aspects of banking sector especially the regional rural banks that have been accelerating its efforts to further the goal of financial inclusion.

11.3 PERFORMANCE, PROSPECTS AND CHALLENGES OF BANKING SECTOR IN NER

North East India, popularly known as North Eastern Region (NER) of the Indian Union, constitutes eight states namely Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura and is acknowledged as the eastern gateway for the country's 'Look East Policy'. The region is rich in natural resource endowment, but it lacks basic infrastructure facilities compared to other regions. The region is basically agrarian with two-thirds of its workforce dependent on agriculture.

11.3.1 Performance

The development of formal banking sector in the NER was only possible after post-nationalization phenomenon. Prior to nationalization of banks in 1969, Arunachal Pradesh and Mizoram did not have even a single bank. Two branches of commercial banks served the entire state of Manipur and Nagaland. Before independence, there were only ten commercial bank branches in the entire North-East Region. Eight of them were in Assam and two in present day Meghalaya. Bank services were in a better condition only in Assam due to the existence of tea and oil industries. The common factors leading to inaccessibility are poor transport and communication network in hilly terrains with sparse settlement of population; the subsistence nature of a traditional tribal economy had limited the demand for modern financial services and thereby restricted development of modern banking. The nationalization of the major banks in 1969 was a turning point in modern banking development in the North Eastern states. Starting from a low base, the branch network of commercial banks expanded significantly in the North-Eastern states.

Table 11.1: Expansion in Bank Branch Network in NER

States	Bank branches (number)			Population			Bank Branches per 1000 Sq km
	1969	2001	2010	1969	2001	2010	2010
Arunachal Pradesh	-	69	80	-	15813	17282	1
Assam	74	1268	1477	89906	21008	21003	19
Manipur	2	84	81	126111	28436	33602	3
Meghalaya	7	181	213	59432	12741	13916	9
Mizoram	-	79	98	-	11279	11133	4
Nagaland	2	71	90	93287	28009	22007	5
Sikkim	-	47	74	-	11489	8252	10
Tripura	5	183	192	96747	17438	19120	22
NER	88	1935	2342	90523	19894	19465	9
All India	8262	67525	86960	63000	15209	13916	26

Source: Compiled from RBI Basic Statistical Returns and Census Data

During the post liberalization period, the trend was, however, reversed. Out of 188111 new branches opened in the country during 2001 - 2010, the region has benefited from additional 407 branches only. Assam has the largest number of bank branches (1477), followed by Tripura (229) and Meghalaya (213). From analysis of data in the table 11.1, it is clear that though geographic penetration has increased with the expansion of bank branches in the region since bank nationalization, it is still far behind the national average. As against 26 bank branches at the all-India level, the region has only 9 branches per 1000 sq km in 2010. The divergence in geographical penetration is very wide across states in the region. Arunachal Pradesh has only one branch per 1000 sq km; Manipur three, Mizoram four and Nagaland five. As against this, Assam has 19 and Tripura 22 bank branches per 1000 sq km.

At the time of bank nationalization, population per bank branch in the region was 90,523 as against the national average of 63000. With the increase in bank branch network after bank

nationalization, population per bank branch though declined from 90523 in 1969 to19465 in 2010 in the region, it is still significantly higher than the national average of 13916.

With the rapid expansion of bank branch network immediately after nationalization of 14 major banks, all the states recorded higher acceleration in deposit and credit growth. In Table 11.2, an attempt is made to analyze the trends in annual growth rates in deposits and credit as well as credit-deposit ratios during the last three decades in North-East states.

Table 11.2- Average Annual Growth rates in Deposits and Credit Amounts and C-D Ratios (Percentage) in NER

States	Deposit			Credit			C-D Ratio		
	1981-1991	1991-2001	2001-2010	1981-1991	1991-2001	2001-2010	1981	1991	2010
Arunachal Pradesh	27.2	15.4	24.4	24.1	8.1	34.5	14	28	27
Assam	18.1	16.2	19.7	14.4	11.2	27.7	42	50	36
Manipur	18.2	14.9	20.7	26.0	8.3	23.1	38	72	41
Meghalaya	21.0	15.8	22.6	22.4	12.9	31.5	21	22	26
Mizoram	24.9	14.4	19.1	27.0	12.8	27.2	20	28	24
Nagaland	24.6	15.4	19.4	26.5	1.7	27.7	36	44	30
Tripura	20.6	18.9	20.0	24.1	6.0	21.1	60	68	25
Sikkim			20.3			34.4		14	37
NER	19.4	16.2	19.8	16.7	10.2	22.5	40	47	35
All India	16.4	16.8	18.9	15.9	15.8	21.9	67	62	73

Source: RBI Basic Statistical Returns and Census Data

As stated in table 11.2, the annual deposits growth rates in all states in the region during the period 1981-1991 ranged between 18 percent in Assam to 26 percent in Arunachal Pradesh as against the national average of 16 percent. However, this trend was reversed during 1990s, immediately after financial sector reforms. Excluding Tripura, in all other states, the deposit growth decelerated below

the national average. During the 2001-10, all the states in the region have achieved slightly higher deposit growth compared to the national average of 18.9 percent per annum. Interestingly, the interstate variations in deposit growth rates was found to be not very significant. However, the performance of the North-east region in deposit growth is dismal compared to Northern, Western and Southern regions which witnessed annual deposit growths of above 40 percent during this period.

The state-wise comparison shows that Mizoram has the lowest CD ratio of 24 percent followed by Tripura and Arunachal, where CD ratio was 25 percent each. Manipur has the highest CD ratio of 41 percent followed by Sikkim (37 percent) and Assam (36 percent). Other states have lower than the regional average of 35 percent. Except Meghalaya and Sikkim, all other states in the region witnessed significant decline in the CD ratios during the last decade.

NER is yet to exploit the full banking potential for productive purposes. The scheduled commercial banks are yet to be spread in the nook and corner of the region, presence of foreign banks in the region is few and the appearance of private banks in the region is also very scanty. Being isolated geographically, the performance of the banks in the region is not at par with the other regions and with the nation as a whole.

11.3.2 Prospects

Realizing the importance of financial inclusion, every State in NER has to strive hard and cooperate with the Banks in formulating appropriate strategies to overcome the challenges while matching the demand and supply side of financial services. Looking at the performance of banking sector of NER, the future prospects of banking system of NER are summarized as follows:

- Financial literacy is becoming an increasing need for the prospective customers of unbanked rural areas of North East

India. It will help the people of the region to access the financial products easily.

- North Eastern Council (NEC) need to come up with viable plans for infrastructural and communication development, along with adequate facilities, within the framework of RBI. This will undoubtedly ensure the presence of more banks and better quality of financial services at an affordable cost to the disadvantaged sections of the region. These efforts will definitely serve the broader goals of the Governments within the region to alleviate poverty.
- With technology advancement in this globalized world, internet banking services takes an important place. Indian banks will have to concentrate more on providing better services to their customers by upgrading their technological apparatus so that the customer can get full advantages of bank services.
- Savings in the NER should be invested within the region. Respective State Governments and Banks may join hands and work together to attain the goal.

11.3.3 Major Challenges

With the waves of reforms taking place in the financial sector especially in the banking sector, a drastic change is seen in the banking sector. At present Indian banks are in a position to handle any kind of crisis and are constantly involved in the process of innovation. But if we look at the banks in the North Eastern Region, it exhibits poor performance on different counts as mentioned earlier. The major challenges that the banking system is facing in the North Eastern Region are pointed out below:

- Due to its typical geographical characteristics in the NER, it becomes difficult for financial institutions like banks to operate in the region. The North East Region is also a sensitive zone for natural disasters such as landslides and floods,

which further increases the risk of operation of banking and financial institutions.

- The decline in agriculture growth and stagnant industrial and service sector has led to limited livelihood options. This poses a challenge to link micro-credit activities to livelihood generation.
- The area is marked by the presence of a large tribal population. The presence of multi-ethnicity, multiple languages and heterogeneous cultures act as a constraint.
- The financial illiteracy and misconception about banking operations are considered as the main constrains in limiting the access to financial services of the poor and weaker sections of the society.
- The banks are also finding it difficult to identify the information gap across the consumer segments, for formulating appropriate strategies to satisfy the target segments.
- The political disturbances and law and order conditions are other important factors impeding the expansion as well as smooth functioning of banking operations.



CHECK YOUR PROGRESS

Q 1: What is the role of banking services in economic development? (Answer in around 30 words)

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Q 2: Write a brief note on expansion of baking services in NER after nationalisation. (Answer in around 70 words).

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11.4 PERFORMANCE, PROBLEMS AND PROSPECTS OF RRBS IN NER

The Regional Rural Banks (RRBs) are the Indian government banks operating at regional level in different states of India. RRBs were established under the provisions of an ordinance passed in September, 1975 and the RRB Act, 1976 to provide sufficient banking and credit facility for agriculture and other rural sectors. RRBs also perform its operation in urban area. It acts as a small financial bank and along with the banking services, it provides Para-banking facilities (like locker facilities, debit and credit card facilities), and also carry out some government operations like distribution of pensions, wages etc. The RRBs are owned by the Central Government, the State Government and the Sponsor Bank who held shares in the ratios as—50:15:35 respectively.

In the North East Region of India, there are several Regional Rural Banks which provides the basic banking and financial related services. These are—

- Arunachal Pradesh Rural Bank (Arunachal Pradesh),
- Assam Gramin Vikash Bank (Assam)
- Langpi Dehangi Rural Bank (Assam)
- Manipur Rural Bank (Manipur)
- Meghalaya Rural Bank (Meghalaya)
- Mizoram Rural Bank (Mizoram)
- Nagaland Rural Bank (Nagaland)
- Tripura Gramin Bank (Tripura)

11.4.1 Performance of RRBs in NER:

The bank network in the region is mainly dominated by public sector banks viz. State Bank of India (SBI) and its associates, nationalized banks and regional rural banks (RRBs). The following table (table 11.3) shows state-wise number of bank offices in the NER-

Table 11.3- : Bank group-wise distribution of offices (as on march, 2010) in NER

States	SBI & Associates	Nationalized Banks	Private Banks	Foreign Banks	RRBs	Total
Arunachal Pradesh	44	15	3	-	18	80
Assam	271	733	70	2	401	1477
Manipur	20	31	2	-	28	81
Meghalaya	93	55	10	-	55	213
Mizoram	25	9	5	-	59	98
Nagaland	51	22	7	-	10	90
Sikkim	27	40	7	-	-	94
Tripura	40	40	8	-	104	192
NER	571	982	112	2	675	2342
All India	17861	42965	10291	295	15548	86960

Source: Basic Statistical Returns of Scheduled Banks, RBI.

Table 11.3 highlights that out of 2342 branches, the private sector banks have only 112 branches mainly concentrated in Assam. In other states, their presence is only marginal. Regional Rural Banks (RRBs) have expanded rapidly in Assam followed by Mizoram and Tripura.

RRBs are expected to ensure that the targeted rural unbanked location receives the needed credit. An even expansion of the activities of credit is required in different areas and income strata of the population by opening requisite number of branches in unbanked areas. The state of Uttar Pradesh is having highest number of RRBs (8) and number of branches 3518 covering highest district (81), followed by Andhra Pradesh number of RRBs (5) , number of branches (1630) and number of district covered (23), Karnataka number of RRBs (4), Number of branches (1460) and number of district covered (30), Bihar number of RRBs (3), number of branches (1718) and number of district covered (38), Madhya Pradesh number of RRBs (3), number of branches (1132)

and number of district covered (50) Rajasthan number of RRBs (3) number of branches (1157) and number of district covered (36). From the above, it is evident that six states (Uttar Pradesh, Andhra Pradesh, Karnataka Bihar, Madhya Pradesh, Rajasthan) are enjoying the lions share with highest number of RRBs (more than 50%) covering more number of district with their wide branch network. It is interesting to observe that the share of North Eastern states Manipur, Meghalaya, Mizoram Nagaland, Tripura, Arunachal Pradesh, is insignificant in terms of number of RRBs, number of branches covered, and district covered. The striking observation is that such states are having only one RRB with least number of branches, where the state of Nagaland has only 10 branches. It gives the clear indication of the imbalance growth of RRBs where the backward areas have been given less priority in providing banking facilities. It reveals the failure of RRBs to cater to the credit needs of the backward areas.

The efficiency and performance of a financial institution can be judged by the credit deposit ratio, where the highest is usually preferred. The ratio of credit- deposit of RRBs in the North Eastern States of India is depicted in the table (table 11.4) given below-

Table 11.4: State-wise Credit-Deposit Ratio of Regional Rural Banks in NER

States	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Arunachal										
Pradesh	25.8	18.9	20.1	21.5	17.1	21.6	18.0	25.0	26.7	24.6
Assam	52.6	48.3	47.5	48.0	53.7	56.4	55.8	53.2	56.0	52.9
Manipur	60.0	41.7	36.6	34.7	27.1	34.6	38.5	50.0	41.9	39.3
Meghalaya	30.7	29.5	35.0	31.9	34.4	37.9	45.9	54.5	50.0	36.7
Mizoram	63.7	53.9	48.4	54.0	41.7	44.7	50.2	50.0	56.6	52.2
Nagaland	47.1	33.3	27.3	26.2	28.0	30.0	33.6	0.0	32.8	22.2
Tripura	47.9	41.3	41.0	44.0	42.4	44.4	40.7	39.0	38.5	37.0
NER	49.9	44.5	44.1	45.1	46.8	49.4	49.2	47.4	49.4	65.6

Source: Reserve Bank of India publications

The credit deposit of the RRBs in NER has been increasing over the years. The fact has been delineated in Table-11.4. Although Assam and Mizoram has recorded highest C/D ratio but it is fluctuating depicting instability. Compared to other NER, Nagaland and Arunachal Pradesh is recorded to be the lowest. With under capitalization and restrictions on their operations, RRBs, also are not able to play greater role in promoting financial inclusion.

From the above, it is evident that the RRBs have failed to maintain the tempo of growth performance of deposits in NER compared to other regions of India.

11.4.2 Problems of RRBs in NER

Along with the problems that are faced by other banks as noted earlier, there are some specific problems faced by the RRBs till recently—

- Due to various reasons the RRBs here are running at a loss.
- The progress of RRBs is slower than the other banks because of many restrictions on their operations (e.g., till 1996, RRBs were permitted to lend only under priority sector schemes).
- Basically RRBs provide credit facilities to small and marginal farmers and weaker sections of the society. So there is a limited scope to invest this fund freely.
- RRBs takes long time to take decisions on important issues as all the three pillars (i.e., centre, state and sponsored bank) need to give confirmation on that particular issue.
- RRBs failed to maintain the C/D ratio which may be attributed to nature of loans sanctioned, non-recovery of loans, lack of direction of end use of bank credit, lack of implementation of bankable schemes and so on.

11.4.3 Prospects of RRB in NER

From the above analysis, it is clear that the rapid development of RRB has helped in reducing substantially the regional inequality in respect of banking facilities in India. The efforts made by RRBs in branch expansion, deposit mobilization, rural development and credit deployment in rural areas are appreciable. RRBs have successfully achieved its prime objectives like taking banking facilities and services to door steps particularly in banking deprived rural areas, to avail trouble-free and low cost credit to rural sections who are dependent on private lenders, to encourage rural peoples for savings, to generate employment in rural areas and to bring down the cost of providing credit in rural areas. Thus in the present scenario RRBs have a strong banking network in comparison to cooperatives banks and commercial banks. Government should take some more effective steps to make Rural Banks viable. RRBs play an important role in rural areas with the objective of providing credit to small, marginal farmers and economically weaker section, for the development of agriculture, trade and industry. But still its commercial viability has been questioned due to its limited business flexibility, smaller size of loan, low percentage of loan recovery and high risks in loans and advances.

RRBs must develop a good relation with the customers and should create confidence amongst them. Banking staff should interact more with their customers to overcome this problem. Banks should open their branches in areas where customers are not able to avail banking facilities. In order to improve the condition of RRBs, and to minimize overhead expenses and also to optimize the use of technology in RRBs, the government has initiated amalgamation of geographically contiguous RRBs in a State. As a result of this step, the capital base and area of operation of amalgamated RRBs will be enhanced in order to serve their area better with absorption of technology and improved management. In this digitization era, RRBs have to concentrate on speedy, qualitative and secure banking

services to retain existing customers and attract potential customers. Hence it is needed to design the appropriate deposit mobilization policy on which the survival of RRBs in future depends.



CHECK YOUR PROGRESS

Q 3: Define a RRB. (Answer in about 20 words).

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Q 4: Mention two problems faced by RRBs in NER. (Answer in around 50 words).

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11.5 LET US SUM UP

- The banks play an important role in the creation of new capital (or capital formation) in a country and thus help the growth process.
- The development of formal banking sector in the NER was only possible after post-nationalization phenomenon.
- With the rapid expansion of bank branch network immediately after nationalization of 14 major banks, all the states recorded higher acceleration in deposit and credit growth.
- The performance of the north-east region in deposit growth is dismal compared to northern, western and southern regions which witnessed annual deposit growths of above 40 percent during this period.
- Realizing the importance of financial inclusion, every state in the north eastern region has to strive hard and cooperate with the banks in formulating appropriate strategies to overcome the challenges while matching the demand and supply side of financial services.

- Financial literacy is becoming an increasing need for the prospective customers of unbanked rural areas of north east India.
- Due to its typical geographical characteristics, hilly terrain, in north east region of India, it becomes difficult for financial institutions like banks to operate in the region.
- RRBs were established under the provisions of an ordinance passed in September, 1975 and the RRB act, 1976 to provide sufficient banking and credit facility for agriculture and other rural sectors.
- With under capitalization and restrictions on their operations, RRBs, also could not play greater role in promoting financial inclusion in NER.



11.6 FURTHER READING

1) Mithani, D.M.: Money, *Banking, International Trade and Public Finance*, Himalaya Publishing House
2) Bhole, L.M. & Mahakund, J.: *Financial Institutions and Markets*, 5th Ed., The McGraw-Hill Companies
3) Datt, G. & Mahajan, A. (2012) *'Indian Economy', S. Chand & Company Ltd*, ISBN 81-219-0298-3



11.7 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q No 1: Economic development is largely dependent on the effective and efficient operations of banking sector services. It is the efficiency of banks that helps to a great extent in mobilizing savings and investing the same into profitable channels of investment in order to uplift the economic conditions of the people in the region.

Ans to Q No 2: The nationalization of the major banks in 1969 was a turning point in the modern banking development in the North

Eastern states. Starting from a low base, the branch network of commercial banks expanded significantly in the North-Eastern states. During the post liberalization period, the trend was, however, reversed. Out of 188111 new branches opened in the country during 2001 - 2010, the region has benefited from additional 407 branches only. Assam has the largest number of bank branches (1477), followed by Tripura (229) and Meghalaya (213).

Ans to Q No 3: The Regional Rural Banks (RRBs) are the Indian government banks operating at regional level in different states of India.

Ans to Q No 4: Two problems of RRBs in NER are

- The progress of RRBs is slower than the other banks because of many restrictions on their operations.
- Basically RRBs provide credit facilities to small and marginal farmers and weaker sections of the society. So there is limiting scope to invest this fund freely.



11.8 MODEL QUESTIONS

Short Questions (Answer each question in about 150 words)

Q 1: Explain the performance of banking sector in north eastern region.

Q 2: What are the challenges faced by the banking services in NER?

Q 3: State the prospects of RRBs in proper functioning in NER.

Long Questions (Answer each question in about 300 words)

Q 1: Mention the prospects of banking sector in north eastern region.

Q 2: Write a short note on Regional Rural Banks.

Q 3: Explain briefly about the performance of RRBs in North East India.

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