

**MA (ECONOMICS)**

**FINAL SEMESTER**

**MAECO503**

**INDIAN AND NORTH EAST ECONOMY**

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Indian and North East Economy

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## INTRODUCTION OF THE BOOK

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India is developing economy. The economic stagnation and vicious circle of poverty was the characteristic of the India economy prior to liberalization. Rapid economic activities and a higher level of income altogether achieved in the last few decades under the impacts of economic planning in India. An attempt was made in this book to describe the India economy in general and North-East Economy in particular.

The book is divided into ten units and each unit has explained the vital characteristic of India economy.

In unit one, the learners will acquaint themselves with the trended of national income in Indian Economy. They will also learn the extent of employment and unemployment, the changing structure of the Indian Economy, including various pertinent issues of Indian Economy.

Agriculture plays a crucial role in the economy of India. It provides livelihoods to a large section of the population; more than half of the populations of the country are engaged in agriculture sector directly or indirectly. The second unit discusses agricultural performance: Growth and productivity, economic reforms and their impact on agriculture, agricultural policy and institutional reforms.

The evolution of the Indian Industry since independence, Industrial Policy of 1948 and 1956, the role and growth of Public Sector, the impact of Economic Reforms on the Industrial Sector and the emergence of the disinvestment Policy is elaborately discussed in unit three of this book.

The availability of physical infrastructure defines country wellbeing. Thus, unit four discussed the types, problems and the policies of infrastructure finance in India.

The students are expected to acquaint themselves about the various facets of public finance. Thus, the fifth unit of this book comprehensively discusses the trends in revenue and expenditure of central and state governments, public debt, characteristics of tax reforms, deficit financing and price behavior, foreign capital and MNCs in India.

In the unit sixth, we have discussed the North-East economy. The region constitutes around 7.9 percent of the total area of the country but it contains only 3.8 percent of the population of the country as per 2011 census. Topographically the region is a mixture of hills and plains. Thus, the unit sixth deals with the North-East economy.

Agriculture in India is considered to be the backbone and also regarded as the largest sector of the country economic activity. Obviously, in the case of North-East India also the

agriculture is the backbone of the state economy in the absence of industry. The unit seventh of this book explained the agriculture situation in Northeast India, the extent of Jhum Cultivation and its effects, land tenure, land use pattern and cropping pattern in North-East India.

Further, the development of the secondary and tertiary sector in Northeast India is been discussed in unit eighth and Fiscal issues of North Eastern states in unit ninth and tenth.

By bringing out this book, we are quite confident that the contents in this book will meet the needs of a wide range of readers.

**UNIT-I**  
**NATIONAL INCOME, EMPLOYMENT AND PRICE BEHAVIOUR**

**Structure**

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## **1.0 Introduction**

In this unit the learners will acquaint themselves with the trend of national income of Indian Economy. They will also learn the extent of employment and unemployment, the changing structure of Indian Economy, including various pertinent issues of Indian Economy.

### **1.1 Objectives**

The learning outcomes are:

- National income
- Trends in growth and structure, performance of different sectors.
- Employment and unemployment: Recent trends and estimates
- Changing structure and emerging issues
- Labour market reforms
- Inflation: recent trends in prices in India and its causes, price stability.

### **1.2 National Income**

National income of India constitutes total amount of income earned by the whole nation of our country and originated both within and outside its territory during a particular year. The National Income Committee in its first report wrote, “A national income estimate measures the volume of commodities and services turned out during a given period, without duplication”. The estimates of national income depict a clear picture about the standard of

living of the community. The national income statistics diagnose the economic ills of the country and at the same time suggest remedies. The rate of savings and investment in an economy also depends on the national income of the country. Moreover, the national income measures the flow of all commodities and services produced in an economy. Thus the national income is not a stock but a flow. Further, the National Income Committee has rightly observed, “National income statistics enable an overall view to be taken of the whole economy and of the relative positions and inter-relations among its various parts”. During the British period, several estimates of national income were made by Dadabhai Naoroji (1868), William Digby (1899), Findlay Shirras (1911, 1922 and 1934), Shah and Khambatta (1921), V.K.R.V. Rao (1925-29) and R.C. Desai (1931-40). Among all these pre-independence estimates of national income in India, the estimates of Naoroji, Findlay Shirras and Shaw and Khambatta have computed the value of the output raised by the agricultural sector and then added some portion of the income earned by the non-agricultural sector. But these estimates were having no scientific basis of its own. After that Dr. V.K.R.V. Rao applied a combination of census of output and census of income methods. While dividing the whole economy into two separate categories he included agriculture, pastures, forests, fishing, hunting and mines in the first category and applied output method to derive the value of output of these sectors. The other activities like industry, trade, transport, administrative and public services, professions, liberal arts and domestic services were included in second category and applied income method to derive the amount of income raised from all these services. He also added income from house property and other internal incomes along-with the total income earned from abroad to these two sub-totals mentioned above. Although pre-independence estimates of national income in India suffered from various difficulties and limitations but it provided considerable light and insight about the economic conditions of the country prevailing during those period.

After independence, the Government of India appointed the National Income Committee in August, 1949 with Prof. P.C. Mahalanobis as its chairman and Prof. D.R. Gadgil and Dr. V.K.R.V. Rao as its two members so as to compile a national income estimates rationally on scientific basis. The first report of this committee was prepared in 1951. In its report, the total national income of the year 1948-49 was estimated at Rs. 8,830 crore and the per capita income of the year was calculated at Rs. 265 per annum. The committee continued its estimation works for another three years and the final report was published in 1954. For the estimation of national income in India the National Income Committee applied a mixture

of both 'Product Method' and the 'Income Method'. This Committee divided the entire economy into 13 sectors. Income from the six sectors, viz., agriculture, animal husbandry, forestry, Fishery, mining and factory establishments was estimated by the output method. But the income from the remaining seven sectors consisting of small enterprises, commerce, transport and communications, banking and insurance, professions, liberal arts, domestic services, house property, public authorities and rest of the world was estimated by the income methods.

During the post-independence period, the estimate of national income was primarily conducted by the National Income Committee. Later on, it was carried over by the Central Statistical Organisation. The National Income Unit of C.S.O. estimated the major part of national income from the various sectors like agriculture, forestry, animal husbandry, fishing, mining and factory establishments with the help of product method. The unit of C.S.O. is also applying the income method for the estimation of the remaining part of national income raised from the other sectors.

### **1.3 Trends in National Income in India**

A study, of the trend of the national income in India over the last 60 years, in detail, is very much essential for attaining a clear understanding about the impact of planning on the Indian economy. Both the national income and per capita income are first collected at current prices and then at constant prices for eliminating the effect of any change of price level during that period.

This trend in national income also reflects on the standard of living of the people of India. Thus the national income at current prices is influenced by both the increase in production of goods and services and the rise in prices. In order to make the national income figures comparable, these figures are deflated at constant prices just for eliminating the effect of any change in the price level of the country.

**Table 7.1**  
**Trend of Net National Income and Per Capita Net National Income**

| Year           | Net national income( In crore) |                | Per capita net national income (Rs) |                |
|----------------|--------------------------------|----------------|-------------------------------------|----------------|
| 2004-05 Series | Current Price                  | Constant Price | Current Price                       | Constant Price |
| 1951-52        | 9829                           | 269724         | 274                                 | 7513           |
| 1970-71        | 44550                          | 596470         | 823                                 | 11025          |
| 1990-91        | 526017                         | 1342031        | 6270                                | 15996          |
| 2000-01        | 1947788                        | 2401875        | 19115                               | 23095          |
| 2004-05        | 2899944                        | 2899944        | 26629                               | 26629          |
| 2005-06        | 3303532                        | 3167455        | 29869                               | 28639          |
| 2006-07        | 3842743                        | 3456274        | 34249                               | 30805          |
| 2007-08        | 4481882                        | 3806140        | 39384                               | 33446          |
| 2008-09        | 5031943                        | 3922062        | 43604                               | 33987          |
| 2009-10        | 5780028                        | 4241183        | 49402                               | 36249          |
| 2010-11        | 6942089                        | 4657438        | 58534                               | 39270          |
| 2011-12        | 8052996                        | 4958849        | 66997                               | 41255          |
| 2011-12 Series | Current Price                  | Constant Price | Current Price                       | Constant Price |
| 2011-12        | 7742330                        | 7742330        | 63462                               | 63462          |
| 2012-13        | 8766345                        | 8094001        | 70983                               | 65538          |
| 2013-14        | 9897663                        | 8578417        | 79118                               | 68572          |
| 2014-15        | 10953761                       | 9231556        | 86454                               | 72862          |
| 2015-16        | 12076882                       | 9982112        | 94130                               | 77803          |
| 2016-17(PE)    | 13408211                       | 10686776       | 103219                              | 82269          |
| 2017-18(FAE)   | 14710563                       | 11404413       | 111782                              | 86660          |

Source: Economic Survey 2017-18.

Table.1.1 reveals the estimates of 2004-05 and 2011-12 based net national Income series since 1950-51 both at constant and at current prices. It is observed that NNI of India at constant prices increased from Rs 269724 crore in 1950-51 to Rs 2899944 crore in 2004-05 and then to Rs 4958849 crore in 2011-12 . Again the national income (NNI) of India at current prices increased from Rs 9829 crore in 1950-51 to Rs 2899944 crore in 2004-05 and then to Rs 4958849 crore in 2011-12 . Again the per capita income figure at constant (2004-05) prices increased from 7513 in 1950-51 to Rs 26629 in 2004-05 and then to Rs 41255 in 2011-12 registering a growth rate of 560 per cent during the last 64 years. Moreover, the per capita income at current prices also increased from Rs 274 in 1950- 51 to Rs 26629 in 2004-05 and then to Rs 66997 in 2011-12 registering growth of more than 200 times during the last 64 years. The NNI of India at 2011-12 prices increased from Rs 7742330 crore in 2011-12 to Rs 8578417 crore in 2013-14 and then to Rs 11404413 in 2017-18(FAE) registering a growth rate of around 20 per cent over the last 7 years. Again the Net national income of India at current prices increased from Rs 7742330 crore in 2011-12 to Rs 9897663 crore in 2013-14 and then to Rs 14710563 crore in 2017-18 registering growth of 90 per cent during



the last 7 years. Again, the per capita income figure at constant (2011-12) prices increased from Rs 63462 in 2011-12 to Rs 79118 in 2013-14 and then to Rs 111782 in 2017-18(AFE) registering a growth rate of 76.14 per cent during the last 7 years. Moreover, the per capita income at current prices also increased from Rs 63462 in 2011-12 to Rs 79118 in 2013-14 and then to Rs 111782 in 2017-18 registering a growth of 76.14 per cent during the last 7 years.

#### 1.4 Rates of Growth of National Income in India

In order to study the extent of changes in the national income during different periods it is quite essential to study the annual average growth rate of national income and per capita income in India. Table.1.2 reveals a clear picture about the annual average rates of growth of both national income and per capita income in India during different periods.

**Table.1.2**  
**Annual Average growth rate of Net National income Per Capita Net National Income**

| Period                                   | Net national income(` crore) |                | Per capita net national income (`) |                |
|--|------------------------------|----------------|------------------------------------|----------------|
| 2004-05 Series                           | Curent Price                 | Constant Price | Curent Price                       | Constant Price |
| First Plan (1951-56)                     | 1.9                          | 4.2            | 0.0                                | 2.4            |
| Second Plan (1956-61)                    | 9.6                          | 4.2            | 7.4                                | 2.2            |
| Third Plan(1961-66)                      | 9.5                          | 2.6            | 7.1                                | 0.3            |
| Annual Plan (1966-69)                    | 12.2                         | 3.7            | 9.8                                | 1.5            |
| Fourth Plan (1969-74)                    | 10.8                         | 3.2            | 8.4                                | 0.9            |
| Fifth Plan(1974-78)                      | 10.4                         | 4.9            | 8.0                                | 2.6            |
| Sixth Plan (1980-85)                     | 15.3                         | 5.4            | 12.8                               | 3.1            |
| Seventh Plan (1985-90)                   | 13.8                         | 5.5            | 11.4                               | 3.3            |
| Eight Plan (1992-97)                     | 16.6                         | 6.7            | 14.2                               | 4.6            |
| Ninth Plan (1997-02)                     | 10.6                         | 5.5            | 8.6                                | 3.5            |
| Tenth Plan (2002-07)                     | 12.8                         | 7.5            | 11.1                               | 5.9            |
| Eleventh Plan (2007-12)                  | 16.1                         | 7.8            | 14.6                               | 6.3            |
| Twelfth Plan (2012-17)<br>2011-12 Series | Curent Price                 | Constant Price | Curent Price                       | Constant Price |
| 2012-13                                  | 13.2                         | 4.5            | 11.9                               | 3.3            |
| 2013-14                                  | 12.9                         | 6              | 11.5                               | 4.6            |
| 2014-15                                  | 10.7                         | 7.6            | 9.3                                | 6.3            |
| 2015-16                                  | 10.3                         | 8.1            | 8.9                                | 6.8            |
| 2016-17(PE)                              | 11                           | 7.1            | 9.7                                | 5.7            |
| 2017-18(FAE)                             | 9.7                          | 6.7            | 8.3                                | 5.3            |

Source: Economic Survey 2017-18

Table.1.2 reveals that the annual average growth rate of NNP at 2004-05 prices increased from 4.2 per cent during the First Plan to 4.2 per cent during the Second Plan and then declined to 2.6 per cent during the Third Plan due to severe drought. This growth during the Third Plan was just sufficient to neutralise the growth of population indicated by the zero rate of growth of per capita income during the same period. But during the First Plan and the Second Plan, the annual growth rates of per capita income were 2.4 per cent and 2.2 per cent respectively. During the three Ad-hoc Annual Plans, the economy of the country gradually started to pick up resulting in increase in the growth rates of national income and per capita income to 3.7 per cent and 1.5 per cent respectively.

During the Fourth Plan, the annual average growth rate, of both national income and per capita income gradually declined to 3.2 per cent and 0.9 per cent respectively and the same rates again gradually increased to 4.9 per cent and 2.6 per cent respectively during the Fifth Plan showing an improvement in its performance.

During the Sixth Plan Period, the national income and per capita income in India again recorded a growth rate of 5.4 per cent and 3.1 per cent respectively. Again during the Seventh Plan at 2004-05 prices, the national income and per capita income in India recorded a growth rate of 5.5 per cent and 3.3 per cent respectively.

Again during the Eighth Plan at 2004-05 prices, the national income and per capita income in India recorded a growth rate of 6.7 per cent and 4.6 per cent respectively and in 1993-94 the same rate reached the level of 6.1 per cent and 3.7 per cent respectively. The National income and per capita income in India recorded a growth rate of 5.5 per cent and 3.5 per cent respectively during the Ninth Plan. However, during the Tenth Plan at 2004-2005 prices, the national income and per capita income in India recorded a growth rate of 7.5 per cent and 5.9 per cent respectively. In 2007-08, the same growth rate increased to 9.6 per cent and 8.1 per cent respectively. In 2011-12, the same growth rate declined to 6.5 per cent and 5.1 per cent respectively facing the impact of global recession. Thus, during the Eleventh Plan at 2004-05 prices, the national income and per capita income recorded a growth rate of 7.8 per cent and 6.0 per cent respectively.

However, during the Twelfth Plan, the growth rate of national income and per capita income is likely to face a setback facing the impact of global recession again. Accordingly, the CSO has estimated a growth rate of 4.5 per cent only for the year 2012-13. However both Growth rate of national income and per capita national income increased to 7.6 and 6.3 during 2014-15 and it increased further up to 8.1 and 6.2 during 2015-16 respectively.

## **1.5 Causes for Slow Growth of National Income in India**

The growth rate of national income in India remained all along poor particularly in the first half of our planning process. Between First plans to Fourth Plan, the annual average growth rate of national income varied between 2.6 per cent to 4.1 per cent. During the Fifth, Sixth and Eighth Plan, the annual average growth rate of national income also ranges between 4.9 per cent, 5.4 per cent and 6.7 per cent respectively. It is only during the Ninth Plan, the annual rate of growth of national income in India touched the level of 5.5 per cent. Thus we have seen that the rate of growth of national income in India is very poor. Targets of growth rate of national income remain all long unfulfilled. The following are some of the important causes of slow growth of national income in India.

### **1.5.1 High Growth Rate of Population**

Rate of growth of population being an important determinant of economic growth, is also responsible for slow growth of national income in India. Whatever increase in national income has been taking place, all these are eaten away by the growing population. Thus high rate of growth of population in India is retarding the growth process and is responsible for slow growth of national income in India.

### **1.5.2 Excessive Dependence on Agriculture**

Indian economy is characterised by too much dependence on agriculture and thus it is primary producing. The major share of national income that is usually coming from the agriculture, which is contributing nearly 34 per cent of the total national income and engaged about 66 per cent of the total working population of the country. Such excessive dependence on agriculture prevents quick rise in the level of national income as well as per capita income as the agriculture is not organised on commercial basis rather it is accepted as way of life.

Excessive dependence on agriculture and low land-man ratio, inferior soils, poor ratio of capital equipment, problems of land holding and tenures, tenancy rights etc. are also responsible for slow growth of agricultural productivity which, in turn, is also responsible for slow growth of national income.

### **1.5.3 Occupational Structure**

The peculiar occupational structure is also responsible for slow growth of national income in the country. At present about 66 per cent of the working force are engaged in agriculture and allied activities, 3 per cent in industry and mining and the remaining 31 per cent in the tertiary sector. Moreover, prevalence of high degree of under-employment among the agricultural labourers and also among the work force engaged in other sectors is also responsible for this slow growth of national income.

### **1.5.4 Low Level of Technology and its Poor Adoption**

In India low level of technology is also mostly responsible for its slow growth of national income. Moreover, whatever technology that has been developed in the country, is not properly utilised in its production process leading to slow growth of national income in the country.

### **1.5.5 Poor Industrial Development**

Another important reason behind the slow growth of national income in India is the poor rate of development of its industrial sector. The industrial sector in India has failed to maintain a consistent and sustainable growth rate during the planned development period and more particularly in recent years. Moreover, the development of basic industry is also lacking in the country. All these have resulted a poor growth in the national income of the country.

### **1.5.6 Poor Development of Infrastructural Facilities**

In India, the infrastructural facilities viz., transport, communication, power, irrigation etc. have not yet been developed satisfactorily as per its requirement throughout the country.

This has been creating major hurdles in the path of development of agriculture and industrial sector of the country leading to poor growth of national income.

### **1.5.7 Poor Rate of Saving and Investment**

The rate of savings and investment in India is also quite poor as compared to that of developed countries of the world. In recent times, i.e., in 2008-09, the rate of gross domestic savings was restricted to 32.5 per cent of GDP and that of investment was 33.0 per cent of GDP in the same year. Such low rate of saving and investment has resulted in a poor growth of national income in the country.

### **1.5.8 Socio-Political Conditions**

Socio-political conditions prevailing in the country is also not very much conducive towards rapid development. Peculiar social institutions like caste system, joint family system, fatalism, illiteracy, unstable political scenario etc. are all responsible for slow growth of national income in the country. In the mean time, the Government has taken various steps to attain a higher rate of growth in its national income by introducing various measures of economic reforms and structural measures. All these measures have started to create some impact on raising growth of national income of the country.

## **1.6 Suggestions to Raise the Level and Growth Rate of National Income in India**

In order to raise the level and growth rate of National income in India, the following suggestions are worth mentioning:

### **1.6.1 Development of Agricultural Sector**

As the agricultural sector is contributing the major portion of our national income, therefore, concrete steps be taken for all round development of the agricultural sector throughout the country at the earliest. New agricultural strategy be adopted widely throughout the country to raise its agricultural productivity by adopting better HYV seeds, fertilizers, pesticides, better tools and equipment's and scientific rotation of crops and other

scientific methods of cultivation. Immediate steps be taken to enhance the coverage of irrigation facilities along with reclamation of waste land.

### **1.6.2 Development of Industrial Sector**

In order to diversify the sectoral contribution of national income, industrial sector of the country should be developed to a considerable extent. Accordingly the small, medium and large scale industries should be developed simultaneously which will pave the way for attaining higher level of income and employment.

### **1.6.3 Raising the Rate of Savings and Investment**

For raising the level of national income in the country, the rate of savings and investment should be raised and maintained to a considerable extent. The capital output ratio should be brought down within the manageable limit. In this respect, the Ninth Plan document set its objectives to achieve 7 per cent rate of economic growth, to enhance the rate of investment from 27 per cent to 28.3 per cent and to reduce the capital output ratio from 4.2 per cent to about 4.0 per cent.

### **1.6.4 Development of Infrastructure**

In order to raise the level of national income to a considerable height, the infrastructural facilities of the country should be adequately developed. These include transport and communication network, banking and insurance facilities and better education and health facilities so as to improve the quality of human capital.

### **1.6.5 Utilisation of Natural Resources**

In order to raise the size and rate of growth of national income in India, the country should try to utilize the natural resources of the country in a most rational manner to the maximum extent.

### **1.6. 6 Removal of Inequality**

The country should try to remove the inequality in the distribution of income and wealth by imposing progressive rates of taxation, on the richer sections and also by redistribution of wealth through welfare and poverty eradication programmes. Moreover, imposing higher rates of taxation on the richer sections can also collect sufficient revenue for implementation of the plan.

### **1.6.7 Containing the Growth of Population**

As the higher rate of growth of population has been creating a negative impact on level of national income and per capita income of the country, positive steps be taken to contain the growth rate of population by adopting a rational population policy and also by popularising the family planning programmes among the people in general.

### **1.6. 8 Balanced Growth**

In order to attain a higher rate of economic growth, different sectors of the country should grow simultaneously so as to attain an inter-sectoral balance in the country.

### **1.6.9 Higher Growth of Foreign Trade**

Foreign trade can also contribute positively towards the growth of national income in the country. Therefore, positive steps are taken to attain a higher rate of growth in foreign trade of the country. Higher volume of export can also pave the way for the import of improved and latest technologies required for the development of country.

### **1.6.10 Economic Liberalisation**

In order to develop the different sectors of the country, the Government should liberalise the economy to a considerable extent by removing the unnecessary hurdles and obstacles in the path of development. This would improve the productivity of different productive sectors. Under the liberalised regime, the entry of right kind of foreign capital and technical know-how will become possible to a considerable extent leading to modernisation

of industrial, infrastructural and other sectors of the country. This economic liberalisation of the country in the right direction will ultimately lead the economy towards attaining higher level of national income within reasonable time frame. Therefore, in order to raise the size and growth rate of national income of the country, a rigorous and sincere attempt be made by both public and private sector to undertake developmental activities in a most realistic path and also to liberalize and globalize the economy for the best interest of the nation as a whole.

### 1.7 Sectoral Contribution or Distribution of National Income by the Industrial Origin

Sectoral contribution of national income depicts a clear picture about the composition or distribution of national income by industrial origin. Thus it shows the contribution made by different sectors towards the national income of the country.

In India, among the different sectors, the primary sector and more particularly agriculture still plays a dominant role in contributing the major portion of the national income of the country. Table.1.3 shows the changes in the sectoral contribution towards the national income of the country since 1950-51.

Table.1.3 **Distribution of Gross Domestic Product at Factor Cost Percentage Distribution (At 1980-81, 1993-94, 1999-2000 and 2004-05 Prices)**

| <i>Sector</i>                                 | <i>1950-51</i> | <i>1970-71</i> | <i>1990-91</i> | <i>1996-97</i> | <i>2014-15*</i> |
|---|----------------|----------------|----------------|----------------|-----------------|
| <b>A. Primary Sector</b>                      | 56.4           | 45.8           | 33.4           | 27.8           | 19.0            |
| 1. Agriculture                                | 48.6           | 39.7           | 29.5           | 24.0           |                 |
| 2. Forestry                                   | 6.0            | 4.0            | 1.4            | 2.1            |                 |
| 3. Fishing                                    | 0.7            | 0.8            | 0.8            |                |                 |
| 4. Mining & Quarrying                         | 1.1            | 1.3            | 1.7            | 1.7            |                 |
| <b>B. Secondary Sector</b>                    | 15.0           | 22.3           | 27.0           | 29.3           | 28.4            |
| 5. Manufacturing                              | 11.4           | 16.1           | 20.6           | 22.5           | —               |
| 6. Construction                               | 3.3            | 5.0            | 4.1            | 4.3            |                 |
| 7. Electricity, Gas & Water Supply            | 0.3            | 1.2            | 2.3            | 2.5            |                 |
| <b>C. Tertiary Sector</b>                     | 28.5           | 31.8           | 39.6           | 42.7           | 52.6            |
| 8. Trade, Transport etc.                      | 11.0           | 14.2           | 18.1           | 20.2           | 18.9            |
| 9. Finance & Real Estate                      | 9.0            | 8.0            | 10.3           | 12.2           | 20.8            |
| 10. Community and Personal Services           | 8.5            | 9.2            | 11.2           | 10.4           | 12.8            |
| <b>Total : Gross domestic product (A+B+C)</b> | <b>100.0</b>   | <b>100.0</b>   | <b>100.0</b>   | <b>100.0</b>   | <b>100.0</b>    |

Table.1.3 shows the following trends:

#### 1. Primary Sector

The contribution of primary sector which is composed of agriculture, forestry, fishery and mining gradually declined from 56.4 per cent of GDP in 1950-51 to 45.8 per cent in



1970-71 and then finally to 19.0 per cent in 2014-15. It is also interesting to look at the trend in the contribution of agriculture which is contributing the major share (nearly above 90 per cent) to the primary sector.

Thus agriculture contributed about 48.6 per cent of GDP in 1950-51 and then its share however declined to 39.7 per cent in 1970-71 and then to 29.5 per cent in 1990-91 and then finally to around 24.0 per cent in 1996-97.

The share of forestry has also considerably declined from 6.0 per cent in 1950-51 to nearly 1.4 per cent in 1990-91. But the contribution of fishing and mining remained more or less stable varying between 1 to 2 per cent of GDP during this entire period of 60 years.

## **2. Secondary Sector**

The secondary sector which is composed of manufacturing industries, construction, electricity, gas and water supply increased its share of GDP from 15.0 per cent in 1950-51 to 22.3 per cent in 1970-71 and then to 28.4 per cent in 2014-15.

Among the major constituents of the secondary sector, the share of manufacturing industries to GDP also increased from 11.4 per cent in 1950-51 to 15.1 per cent in 2012-13. But the share of construction to GDP marginally improved from 3.3 per cent in 1950-51 to 5.0 per cent in 1980-81 and then slightly declined to 4.3 per cent in 1996-97.

## **3. Tertiary Sector**

The share of tertiary sector which is constituted by trade, transport, storage, communications, banking, insurance, real estate, community and personal services gradually increased from 28.5 per cent in 1950-51 to 31.8 per cent in 1970-71 and then finally to 52.6 per cent in 2014-2015.

Among the major components of tertiary sector, the share of transport, communication and trade also increased from 11.0 per cent in 1950-51 to 18.9 per cent in 2014-15. The share of community and personal services to GDP marginally increased from 8.5 per cent in 1950-51 to 12.80 per cent in 2014-15.

## 1.8 Service Led Growth

During the Ninth Plan, in spite of slowdown in overall growth process, the services sector grew at a rate of 7.9 per cent per annum as compared to that of 2.5 per cent and per annum as compared to that of 2.5 per cent and 4.3 per cent attained by agriculture and industry sector respectively.

Moreover, expansion of services sector accelerated further since 2002-03, propelled considerably by high rates of growth attained by communications (especially telecom), business services (especially information technology) and finance. Table 1.4 shows the excellent performance of services sector since 1991.

[illegible]

Table.1.4 reveals that during the period 1991-97 services sector contributed about half (49.8 per cent) of total growth of GDP. But in the subsequent five years, i.e. during 1996-2002, the contribution of services sector to GDP growth increased significantly to 68.3 per cent and continued to grow at 60.4 per cent over the next six years, i.e. during 2001-08.

Again, during 2008-14 periods, the contribution of services sector to GDP growth in India was as high as 69.8 per cent as shown in the study made by Shankar Acharya. Sri Acharya also observed that “these shares would “be even higher if the construction sub-sector were included under services instead of industry”. Thus the above analysis clearly, shows a ‘services-led’ pattern of economic growth attained by India in the later part of its economic transformation realising a structural transformation of the economy.

## **1.9 Labour Market Reform**

Labour reforms essentially mean taking steps in increasing production, productivity, and employment opportunities in the economy in such a manner that the interests of the workers are not compromised. “Essentially, it means skill development, retraining, redeployment, updating knowledge base of workers-teachers, promotion of leadership qualities, etc. Labour reforms also include labour law reforms” (INDIA 2006; p 601, GOI Publication Division). Labour laws are concerned with the trade union rights of the workers, industrial relations and job security and policies relating to wages, bonus and other incentive schemes.

Archaic labour laws are the greatest roadblocks in realization of an industry-friendly labour market in India. Labour laws continue to keep the workers’ entitlements intact whereas protective shield of the industry which guarded the domestic industry players from competition has disappeared after 1991. Globalization and liberalization unleashed in 1991 allowed international players in Indian market thereby fundamentally changing the business and trade ecosystem. It is essential to have labour laws in sync with emerging trends such as casualization of labour, third-party employment, etc. At the same time, it is equally important to ensure that basic rights of the workers are protected and labour standards are implemented across industries and formal as well as informal sectors. Significant skill shortage across the country has almost a crippling impact on Indian labour market. More than archaic labour laws, this factor makes the labour market quite unattractive especially for foreign direct investment. Even the large domestic players as well as entrepreneurs in micro-small and

medium enterprises face the brunt of unavailability of skilled manpower. A study of Planning Commission (2001) indicated that only 10.1% of the male workers and 6.3% of female workers possessed specific marketable skills in the rural areas while only 19.6% of male workers and 11.2% of female workers had requisite skills in urban areas. Further, only 5% of the Indian labour force in the age bracket 20-24 has vocational skills. Whereas the percentage in industrial countries is much higher, varying between 60% and 80% (Planning Commission, 2001). In terms of vocational skills, India fares worse than some of the developing countries such as Mexico where the percentage of youth having vocational training is 28% (Planning Commission, 2001).

Lack of a holistic labour policy is a major obstacle in the way of developing a liberal labour market which can contribute towards making a competitive manufacturing and service industry eco-systems in the country. There has been a good number of study groups, reports, consultative meetings, etc. However, a holistic national labour policy is elusive. Instead, the government has been involved in piecemeal reforms in labour laws from time to time. In addition, there are references of labour issues in National Manufacturing Policy, National Policy on child Labour, National Policy on Skill Development, National Employment Policy, National Policy on HIV/AIDS and World of Work, National Policy on Safety, Health and Environment at Workplace, etc. Last traces of a 'labour policy' are found in the draft of 3rd Five Year Plan document which is quite dated. Such directionless and ad hoc efforts have done no good to liberalize the labour market in line with global trends.

### **1.10 Labour Policies before the Reform Era:**

Before we move to the labour policy in the pre- reform era of 1990s, we must make one important observation of the Indian labour market. Indian labour market is characterized by a sharp dichotomy. Here one finds a small enclave of organized labour. This organized sector is fairly stringently regulated.

On the other hand, a large number of establishments operate in the organized sector where labourers cannot organize themselves to pursue their common interests due to various constraints. Most importantly, this sector is virtually free from any outside control and regulation with little or no job security.

This sector, thus, provides 'too little to too many'. Further, wages are 'too high' in the organized sector and 'too low', even below the subsistence level in the unorganized sector. This dualistic set up suggests how far the Indian labour market is segmented.

Social security to organized labour force in India is provided through a variety of legislative measures. These are payment of compensation to workers in cases of industrial accidents and occupational diseases leading to disablement or death, provident fund, pension including family pension, health insurance, payment of gratuity, maternity benefit, employees' deposit-linked insurance scheme, etc.

A number of steps were taken in India to provide social security as back as 1923. The trend towards conferring benefits to the workers gained momentum only after independence. But considering the needs of the country, the present social security arrangements are inadequate. More than 90 p.c. of workers in India are outside the purview of the prevailing social security arrangements as workers of small unorganized sector as well as informal sectors remain outside the purview of these arrangements.

Another aspect about labour policies that influence labour market is labour laws relating to forming trade unions, industrial relations, and job security

As far back as 1926, Trade Union Act was passed. In India, any seven employees could form a union. During the freedom struggle, Indian trade union contributed handsomely. Today, the trade union is more widespread and has taken deep roots. It is now better organized and is now on a permanent footing. But at the same time, one finds same major defects in the Indian trade union movement.

It is alleged that trade unions in India are interested in the growth of capital thereby blunting the edge of a trade union which is a product of conflict between labour and capital. Often employers counter the moves of the workers to hit back the aggressiveness of workers' unions.

Since workers are not disciplined, leaders resort to strike and work stoppage even on flimsy grounds. Above all, inter-union rivalry and political rivalries are considered to be the major impediments to have a sound industrial relation system in India. It is also said that

Indian labour laws are highly protective of labour, and labour markets are relatively inflexible. As usual, these laws are applicable in the organized sector only.

Prevention and settlement of disputes and benign industrial relations are the two important objectives of India's industrial relations policy. Industrial disputes are governed by the Industrial Disputes Act, 1947, that aims at promoting good relations between employers and workmen, protecting workers against retrenchment and settling disputes through conciliation, arbitration or adjudication.

However, industrial relations climate were far from satisfactory when trade unions resorted to militancy in the 1960s and early 1970s. Between 1972 and 1981, the average number of work days lost per year per employee in the manufacturing sector stood at 4.070. This figure went up to 5.736 between 1982 and 1992—a very high figure compared to other countries in the contemporary period.

India's labour laws for the workers in the organized sector give workers permanent employment, of course, after a probation period ranging from 6 months to 2 years. Job security in India is so rigid that workers of large private sector employing over 100 workers cannot be fired without government's permission.

Above all, in the public sector, one author aptly remarked that 'workers here have enjoyed almost complete job security since independence'. Promotions are based on seniority and thus workers get fixed annual wage increments unrelated to work performance.

This really tells on the efficiency of the workers leading to low productivity in the manufacturing industry. Even the owners of sick industries are not permitted to downsize the establishments or to close them down. In view of this, one finds the tendency of Indian firms to employ casual or contract workers who are not protected by the country's labour laws.

Thus, the conclusion in the words of Pradeep Agrawal is; The labour market policies followed in India in the past have led to serious problems due to low labour productivity even in the context of an economy where the firms were shielded from both international competition (by the very high import tariffs) and domestic competition (by the licensing policies).

This, in turn, created an inefficient and internationally uncompetitive industrial sector which eventually led to lower wages (for example, Indian wages in the manufacturing sector are only seventh the Singaporean wages), fewer jobs, and higher unemployment.

P. Agarwal adds further that these labour policies, if pursued in the neo-liberal regime, will create variety of problems in the midst of growing domestic and international competition. It has been also observed that the so- called labour market regulations operating since 1947 have tended to discourage both the growth of employment and productivity.

Further, it has pushed many activities into the unorganised sector. This is evident from the fact that annual growth rate of employment in the unorganised sector was much higher (2.73 p.c.) than the organised sector (1.58 p.c.) during 1981-91.

### **1.11 Labour Policies and the Reform Era**

Since protective labour policies and inflexible labour laws are not in the long term interests, flexible labour market policies gained legitimacy in the climate of economic liberalism so as to promote efficiency and productivity of labour and protect them against any hazards.

The Indian neo-liberal economic reforms introduced in mid-July 1991 paid rather little attention to employment generation. That is why one finds poor employment growth during the reform period—an adverse consequence of the reform process.

Before we start our discussion on the labour market policies in the reform era, one must say that the existing labour laws are commendable in paper but not in implementation. This is what the second National Commission on Labour set up in October 1999 observed in its Report presented on June 2002; “It can be said that our labour laws... have been criticized as being ad hoc, complicated, mutually inconsistent, if not contradictory, lacking in uniformity of definitions and riddled with clauses that have become outdated and anachronistic, in view of the changes that have taken place after they were introduced many years ago.”

The Government of India has in recognized the following rights of workers as alienable to every worker under any system of labour laws and labour policy.

**These are:**

- (i) Right to work of one's choice
- (ii) Right against discrimination
- (iii) Prohibition of child labour
- (iv) Just and humane conditions of work
- (v) Right to social security
- (vi) Production of wages including right to guaranteed wages
- (vii) Right to redress grievances
- (viii) Right to organize and form trade unions
- (ix) Right to collective bargaining
- (x) Right to participation in management.

Along with these rights, workers need many forms of security, like labour market security, employment security, job security, income security, work security, etc. These are of critical importance in the globalised era as these people are exposed to increased risk of insecurity. Really, a pathetic condition prevails in the unorganized sector. That is why a National Commission for Enterprises in the Unorganized Sector headed by Arjun Sengupta was set up to provide some sort of social security to the unorganised workers. It submitted its report in August 2007.

Unfortunately, these may of rights of workers are rarely met or enforced. This is one of the most common and most effective criticisms of labour legislation in India.

## **1.12 Criticism**

### **(i) Labour Market Reforms are Imperative:**

India's experience of growth during the liberalized regime is rather stunning, but its overall impacts on employment in the organised sector, per worker productivity are not altogether rosy. As employment, during the period considered, grew slowly compared to the GDP growth rate the period has been described very aptly as 'jobless growth' or 'job loss growth'. Employment decelerated in all sectors in the post-liberalization period.

Another disturbing aspect of the current employment growth is that both the shares of self-employment and wage labour both casual and regular have increased. One then observes



concentration of employment in the unorganized/informal sector. Earlier, this informal sector was considered as the 'employment of the last resort'.

Such informal as well as non-agricultural employment neither results in higher productivity nor better wages to the workers. Work conditions have been deteriorating gradually as employers of this sector prefer to employ workers on a contract basis.

However, the hiring of casual or contract labour is not peculiar in the unorganized informal sector in India. One can see the growing incidence of casualisations and contractualisation of the labour force even in the organised sector. Thus, protection or security of workers is rather a dream workers are at the discretion of the employers.

It is also observed that employment discrimination against women workers has increased substantially in the reform period though empowerment of women is considered an important avowed objective in India.

In addition to declining employment opportunities in the organised sector, we see that wages are not increasing in commensuration with the workload that the workers carry now. In other words, workers are exploited not only in the unorganised sector but also in the organised sector in spite of the legislation providing social security to these workers. Unfortunately, most of these legislations are dated and not adequate 'fit' in the current globalised-liberalised economy. In fact, labour market in India is now showing a great deal of inefficiency and a high cost structure economy.

Rigid institutional structures in the labour market need to be made flexible and transparent, It is commonly alleged that the employment growth in the organised sector is largely impeded by 'the prevalence of excessively rigid labour laws' (11th Plan Document). It is found that in India there are 45 laws at the national level and close to 4 times that at the State levels (since labour falls in the Concurrent List) that monitor the functioning of the labour markets.

It is, thus, necessary to review the existing laws and regulations so that the (i) corporate sector can be induced to adopt more labour intensive sectors, and (ii) unorganised

sectors which are traditionally labour-intensive sectors are encouraged to facilitate the expansion of employment.

## **(ii) Different Aspects of Labour Market Regulations**

Against the backdrop of current liberalized Indian economy, we can say that as changing labour laws is a sensitive issue it requires consensus among all the parties involved. The three issues involved in the labour market regulations are: (i) the wage setting process, (ii) the labour market conditions, and (iii) the hiring and firing process.

The issue of labour reforms has been a source of debate since the reforms era begun in 1991 when the State withdrew itself from intervening the labour market. Historically, the government had a 'social pact' with labour reflected in the labour laws of the country. Employers argue that the rigid labour laws are fetters to their development in the current competitive environment. Flexibility in the labour market is of urgent necessity.

But in the name of flexibility in labour laws, one must not ignore the interests of labour so that their jobs are not threatened. Thus, labour market reforms must ensure greater flexibility to our firms and employers in such a way that labour is adequately protected against any casualties.

A belated attention was made by the Government on the need for bringing about changes in the labour laws in 1999 when the Second National Labour Commission was constituted. The Commission was asked (i) to suggest nationalization of existing labour laws applicable in the organised sector, and (ii) to suggest 'umbrella' legislation for insuring a minimum level of protection to workers in the unorganized sector.

The two aspects of labour reforms that have come to the surface in recent times are Chapter V-B of the Industrial Disputes Act and the Contract Labour (Regulation and Abolition) Act. Under Chapter V-B of the ID Act, all establishments employing more than 100 workers must obtain prior approval for closure, retrenchment and lay-offs from the appropriate Government authority.

It has been recommended by the Second National Commission on Labour that the provisions may be applicable to organizations employing over 300 persons. Some argue that

the limit be raised to establishments employing more than 1,000 workers. Employers want the provision relating to ‘prior permission’ needs to be deleted. Another alternative is to pitch the compensation to be paid to workers in the event of closure, retrenchment or lay-offs be raised at a higher level.

The objective of the Contract Labour (Regulation and Abolition) Act is to abolish contractual employment in activities and processes in core production/service activities. However, contract workers must enjoy prevalent social security provisions and other benefits.

### **(iii) Unorganized Sector and Umbrella Organization**

These are all about formal or regular employment. But umbrella legislation is indeed of great importance so that the unorganized sector—where the majority of workers are engaged—is protected. It is necessary to take steps to improve quality of employment in the unorganized sector.

Any significant improvement in their incomes and the quality of employment is feasible if the ‘institutional environment in the labour market makes it feasible for the formal sector to reach out to the workers of the unorganized sectors on a decentralized basis. This is also possible if provident fund, ESI and a variety of welfare funds are extended to the unorganized sectors. All these would give the workers a better deal in terms of wages, and security of all kinds.

Unfortunately, the quality of employment is far from satisfactory and the NSSO 61st Round (2004-05) shows, as usual, that as most of the workers do not have any (written) job contracts they are not eligible for leave and social security benefits, if any. Thus, what is needed is ‘the creation of a formal relationship between the worker and the hiring establishment’.

### **Another Important Issue**

Labour laws and labour market regulations will surely erode the powers of the workers’ association. This is undesirable on any ground and the workers’ rights to form

associations need to be protected at any cost. Labour market regulations must be designed in a manner that prevents employers from being vindictive.

### **1.13 Social Safety Net for Workers**

It has been said that the labour market is anti- labour. ID Act, 1947 stipulates that workers cannot be retrenched without prior permission of the Government. This, of course, safeguards the interests of the workers. But employers are of the opinion that, in this competitive globalised world, an organization needs to be efficient.

Against the backdrop of changing scenario firms should respond in such a manner that labour forces are kept small as far as possible. But hiring and firing of workers on any pretext by the employers is hardly defensible. Even if such firing is needed at all, workers need to be adequately compensated so as to minimize the risks of losing jobs.

#### **a. Rationale for Safety Net:**

##### **(i) Safety valve against job loss:**

Firstly, globalization and liberalization have resulted in higher economic growth rate in collision with a lower employment. Loss of jobs consequent upon volatile demand is the social and distributional consequence of globalization. This is true for all the economies. Provisioning of social safety net for workers will act as a cushion to the victims so as to legitimize reforms. This argument is valid for all the economies, including India.

##### **(ii) Cancelling out the adverse impacts of reforms:**

Secondly, globalization and its attendant consequences on the Indian economy is unavoidable. Workers, in the present scenario, are bound to lose jobs. If a social safety net for workers is created the adverse consequences of economic reforms can be minimized. This compliments economic reforms and related labour market developments.

##### **(iii) Minimizing the unfavorable impacts of structural shifting of labour force:**

Thirdly, one finds the rationale of such social safety net for workers against the backdrop of structural transformation of an economy. Following the liberalization measures

introduced since 1991, the Indian economy has been seeing structural changes where some sectors of the economy lose importance while other sectors gain in importance.

This kind of structural change, thus, necessitates a shift in work force from one sector to another sector, i.e., from the contracting sector to the expanding sector. The labour market should be made more flexible so that the labour force could be shifted from the unorganized sector to the organised sector and vice versa without any hassles.

In fact, problems get multiplied when an organised labour force is forced to migrate from its own forte to the unprotected unorganized sectors. Anyway, the process of transition of workers from one sector/industry to another sector/industry could be managed both by the provision of financial compensation and through retraining of skills. This is suggestive of the fact that the statutorily- backed social security to the workforce engaged in the unorganized sector needs to be provided.

#### **(iv) Mechanisms of Social Safety Net:**

To minimize the adverse impacts of closure of a firm, or retrenchment of workers, the option of social security net needs to be promoted. One such option is the ‘Voluntary Retirement Scheme’ (VRS). This is the most common method to shed off excess labour-load. It is also known as ‘Golden Handshake’—a golden route to retrenchment. This scheme, thus, does not create any pressure to workers to exit as voluntarily retired workers are to be paid lump-sum tax- free benefits. It has been introduced both in public and private sectors in India.

The second option was the creation of National Renewal Fund in 1992. Its basic objectives were (i) to provide funds for compensation to employees, and (ii) to provide funds for employment generation schemes in order to provide a social safety net for labour arising out of closure of units or industrial restructuring.

### **Conclusion**

Thus, in the current scenario, greater flexibility in labour laws must be ensured so that firms can adjust to changes in demand when necessary. The Government admits that the labour laws—such as Chapter V-B of the ID Act, and Contract Labour (Regulation and Abolition) Act—lack flexibility. Further, those laws focus on job protection and thus inhibit employment. These aspects received attention in the Mid-term Appraisal of the Tenth Plan. However, the 11th Plan Document says that the V-B provisions of the ID Act, 1947 ‘has not proved to be a major obstacle in downsizing by several manufacturing enterprises during the past few years with the aid of generous packages for voluntary retirement.’ The labour

market is required to be made more flexible in the days to come so that labour force shifts gradually from the unorganized sector to the organised ones.

However, trade unionists as well as workers of the organised sector are of the opinion that labour market reform is anti-labour. But as far as labour laws are concerned, workers of the organised sector, especially in PSEs, enjoy virtually 'complete' job security. But protective labour policies may cause damages in the long run in the midst of rising number of unemployment.

Further, if employers enjoy more bargaining power, interests of the workers may be at jeopardy. Indeed, this is what we observe in the rising incidence of contract-based employment leading to conflicts with the more general requirement that society must ensure 'decent work' for all. With growth rate picking up, a harmonious balance between efficiency and the quality of employment involving the relationship between management and labour and welfare aspects needs to be maintained.

In the ultimate analysis, labour laws, significant as they are, are not the true drivers of growth. Changes in labour laws are only one of the issues that merit attention. Flow-ever, the Second National Labour Commission Report goes on stating that these labour laws 'have to be visualized and effected in a broader perspective of infrastructural facilities, social security, and Government policies.'

The Commission adds that it is necessary to provide for both protective and promotional measures, the latter being highly relevant for the workers in the unorganized sector.

#### **1.14 Inflation: Recent Trends in Prices in India and Its Causes**

##### **What Is Inflation?**

Inflation is a quantitative measure of the rate at which the average price level of a basket of selected goods and services in an economy increases over a period of time. It is the constant rise in the general level of prices where a unit of currency buys less than it did in prior periods. Often expressed as a percentage, inflation indicates a decrease in the purchasing power of a nation's currency.

As prices rise, a single unit of currency loses value as it buys fewer goods and services. This loss of purchasing power impacts the general cost of living for the common public which ultimately leads to a deceleration in economic growth. The consensus view among economists is that sustained inflation occurs when a nation's money supply growth outpaces economic growth.

To combat this, a country's appropriate monetary authority, like the Central Bank, then takes the necessary measures to keep inflation within permissible limits and keep the economy running smoothly. Inflation is measured in a variety of ways depending upon the types of goods and services considered and are the opposite of deflation which indicates a general decline occurring in prices for goods and services when the inflation rate falls below 0 percent.

Nobel Laureate economist, Milton Friedman, said in his Nobel Laureate lecture that 'Inflation is always and everywhere a monetary phenomenon'. In other words, in the long run, no inflation can occur without an accommodating money supply increase.

### **1.15 Causes of Inflation**

Rising prices are the root of inflation, though this can be attributed to different factors. In the context of causes, inflation is classified into two types: Demand-Pull inflation and Cost-Push inflation.

#### **1.15.1 Demand-Pull Effect**

Demand-pull inflation occurs when the overall demand for goods and services in an economy increases more rapidly than the economy's production capacity. It creates a demand-supply gap with higher demand and lower supply, which results in higher prices. For instance, when the oil producing nations decide to cut down on oil production, the supply diminishes. It leads to higher demand, which results in price rises and contributes to inflation. Additionally, an increase in money supply in an economy also leads to inflation. With more money available to individuals, positive consumer sentiment leads to higher spending. This increases demand and leads to price rises. Money supply can be increased by the monetary authorities either by printing and giving away more money to the individuals, or

by devaluing (reducing the value of) the currency. In all such cases of demand increase, the money loses its purchasing power.

### **1.15.2 Cost-Push Effect**

Cost-push inflation is a result of the increase in the prices of production process inputs. Examples include an increase in labor costs to manufacture a good or offer a service or increase in the cost of raw material. These developments lead to higher cost for the finished product or service and contribute to inflation.

## **1.16 Recent Trends in Prices in India**

During the 1950's, the average decadal rate of inflation was very low at 1.7 percent. In 1960's, the average decadal rate of inflation went up to 6.4 percent. It was increased due to Chinese war in 1952, Pakistan war in 1965 and Famine conditions in 1965-67. The maximum rate of inflation at 14 percent was recorded in 1966-67.

During the 1970's the average decadal rate of inflation was 9 percent. Due to undue hike in oil prices in this decade, once in 1972-73 and again in 1979-81, it led to an overall increase in prices. During the 1980's, the decadal average inflation was 8 percent. The average inflation rate was around 10 percent during the first half of nineties. The inflation rate was more than 12 percent during 1990-91. The next three years saw a decline in the inflation rates at around 10 percent, the growth in prices, both at the wholesale level and retail level, has been around 5 percent per annum during 1996-2001.

The average inflation during 2010 April to December was 9.4 percent which was the highest recorded average inflation in last ten years. It was due to delayed monsoons, hardening of international prices for crude oil, minerals and related products, shortfall in domestic production vis-à-vis domestic demand, led to higher inflation during 2000-10. There has been a significant variation in inflation rates in terms of Wholesale Price Index (WPI) and Consumer Price Index (CPI). The Consumer Price Index combined for urban and rural was 7.65 percent. CPI for urban it was 7.38 percent and CPI for rural it was 8.25 percent in January 2012.



### 1.17 Recent Rise in Inflationary Pressure

The economy witnessed a gradual transition from a period of high and variable inflation to more stable and low level of inflation in the last five years. Headline inflation based on the Consumer Price Index – Combined (CPI-C) has been declining continuously for the last five years. Headline CPI inflation declined to 3.4 per cent in 2018-19 from 3.6 per cent in 2017-18, 4.5 per cent in 2016-17, 4.9 per cent in 2015-16 and 5.9 per cent in 2014-15. It stood at 2.9 per cent in April 2019 as compared to 4.6 per cent in April 2018. A comparative picture of inflation based on the major price indices is given in Table 1.5.

**Table.1.5**  
**General inflation based on different price indices (in per cent)**

|               | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|---------------|---------|---------|---------|---------|---------|---------|---------|
| WPI           | 6.9     | 5.2     | 1.2     | -3.7    | 1.7     | 3.0     | 4.3(P)  |
| CPI(combined) | 9.9     | 9.4     | 5.9     | 4.9     | 4.5     | 3.6     | 3.4     |
| CPI(IW)       | 10.4    | 9.7     | 6.3     | 5.6     | 4.1     | 3.1     | 5.4     |
| CPI(AL)       | 10.0    | 11.6    | 6.6     | 4.4     | 4.2     | 2.2     | 2.1     |
| CPI(RL)       | 10.2    | 11.5    | 6.9     | 4.6     | 4.2     | 2.3     | 2.2     |

Source: Various years of Economic Survey report, 2016-17, 2017-18 and 2018-19

Note: CPI-C inflation for 2012-13 and 2013-14 is based on old series 2010=100; (P) - Provisional; C stands for Combined, IW stands for Industrial Workers, AL stands for Agricultural Laborers and RL stands for Rural Laborers.

The average CPI-C headline inflation declined to 3.4 per cent in 2018-19, which is the lowest average since the new series of CPI-C began. Headline CPI-C inflation has remained below 4.0 per cent for two consecutive years. The decline in the inflation in the FY 2018-19 was mainly due to low food inflation which ranged between -2.6 to 3.1 per cent. The moderate inflation rate of less than 4 per cent was maintained for straight 8 months during the FY 2018-19. The CPI-C inflation for the month of April 2019 stood at 2.9 per cent same as in March 2019 as compared to 4.6 per cent in April 2018.

Continuously decline in inflation is observed for various price indices. Headline CPI (combined) inflation declined sharply to 4.5 per cent in 2016-17 from 4.9 per cent in 2015-16 and 5.9 per cent in 2014-15. Inflation based on CPI-Industrial workers (IW) declined to 3.1 percent in 2017-18 from 4.1 percent in 2016- 17 from 5.6 percent in the previous year. It reached a low level of 1.1 percent in May 2017. As per Wholesale Price Index (WPI) with base 2011-12, inflation increased to 1.7 percent in 2016-17 from -3.7 per cent in 2015-16 on the back of hardening of global commodity prices.

Inflation both in terms of Consumer Price Index – Combined (CPI-C) and Wholesale Price Index (WPI) has decreased in recent years with WPI registering negative growth in 2015-16. The salient aspects include secular decline in headline inflation, convergence of CPI and WPI, decline in inflation across commodity groups, notable being food, narrowing of gap between rural and urban inflation and decline in inflation across States.

**Table.1.6**  
**Inflation in selected groups of CPI-Base 2012 (in per cent)**

| Description                                 | Weights     | 2015-16 | 2016-17 | 2017-18 | 2018-19 | Apr-19 (P) |
|---|-------------|---------|---------|---------|---------|------------|
| All Groups                                  | 100         | 4.9     | 4.5     | 3.6     | 3.4     | 2.9        |
| <i>CFPI*</i>                                | <i>39.1</i> | 4.9     | 4.2     | 1.8     | 0.1     | 1.1        |
| <i>Food &amp; beverages</i>                 | <i>45.9</i> | 5.1     | 4.4     | 2.2     | 0.7     | 1.4        |
| Cereals & products                          | 9.7         | 1.8     | 4.2     | 3.5     | 2.1     | 1.2        |
| Meat & fish                                 | 3.6         | 6.3     | 5.6     | 3.2     | 4.0     | 7.5        |
| Egg   | 0.4         | 2.3     | 6.7     | 3.6     | 2.3     | 1.9        |
| Milk & products                             | 6.6         | 5.2     | 4.1     | 4.1     | 1.8     | 0.4        |
| Oils & fats                                 | 3.6         | 4.3     | 4.0     | 1.6     | 2.1     | 0.7        |
| Fruits                                      | 2.9         | 1.5     | 4.8     | 4.6     | 2.3     | -4.9       |
| Vegetables                                  | 6.0         | 1.4     | -2.2    | 5.8     | -5.2    | 2.9        |
| Pulses & products                           | 2.4         | 31.9    | 9.3     | -21.0   | -8.3    | -0.9       |
| Sugar & confectionery                       | 1.4         | -7.0    | 19.6    | 6.1     | -7.0    | -4.0       |
| <i>Fuel &amp; Light</i>                     | 6.8         | 5.3     | 3.3     | 6.2     | 5.7     | 2.6        |
| <i>CPI excl. food and fuel group (Core)</i> | <i>47.3</i> | 4.6     | 4.8     | 4.6     | 5.8     | 4.5        |

Source: Economic survey, 2018-19, P: Provisional \* Consumer Food Price Index

It was observed that the decline in inflation for all commodity groups, the most significant being decline in food. Food inflation based on consumer food price index (CFPI) declined to 4.2 per cent in 2016-17 from 4.9 per cent in 2015-16 and 6.4 per cent in 2014-15. High inflation in pulses, vegetables and sugar although put some pressure on CFPI in the beginning of 2016-17, favorable Monsoon leading to increase in production of cereals and pulses has led to a decline in CPI food inflation in the second half. In order to reduce the volatility in prices of pulses, the Government has built-up buffer stocks of about 19 lakh tonnes through domestic procurement and imports. Vegetable prices, which generally flare up during lean summer seasons, have declined sharply in the past few months, as supply picked up. CPI inflation in vegetables as a result remained negative since September 2016. Sugar inflation remained persistently high during 2016-17 in the backdrop of lower production and hardening of prices in the international market. Sugar prices at both wholesale and retail level have moderated in the last few months. The break-up of food inflation based on CPI and WPI is at Table.1.6 and 1.7 respectively.

Food Inflation in the country has been extremely benign. Even globally, food inflation has been moderate. Food inflation based on Consumer Food Price Index (CFPI) declined to

1.8 per cent in 2017-18 from 4.2 per cent in 2016-17, 4.9 per cent in 2015- 16 and 6.4 per cent in 2014-15. Average food inflation for the financial year 2018- 19 declined to a low of 0.1 per cent. Food inflation stood at 1.1 per cent in April 2019 compared to 0.3 per cent in March 2019 and 2.8 per cent in April 2018. The food deflation in the second half of FY 2018-19 is mainly due to deflation in vegetables, fruits, pulses and products, sugar & confectionery and eggs, which together account for 13.1 per cent weight in overall CPI-C. Vegetables, which account for 6.0 per cent weightage in overall CPI-C, recorded deflation of 5.2 per cent during 2018-19. Pulses and products, which account for 2.4 per cent weightage, too recorded deflation during 2018-19 at 8.3 per cent. Volatility in prices of pulses has been low. Amongst pulses, many have seen the least price fluctuation.

**Table.1.7**  
**Inflation in selected groups of WPI- Base 2011-12 (in per cent)**

| All Commodities                              | Weight      | 2015-16     | 2016-17     | 2017-18    | 2018-19    | Apr-19 (P) |
|--|-------------|-------------|-------------|------------|------------|------------|
|  | 100         | -3.7        | 1.7         | 3.0        | 4.3        | 3.1        |
| Food Index                                   | 24.4        | 1.2         | 5.8         | 1.9        | 0.6        | 4.9        |
| <i>Food articles</i>                         | <i>15.3</i> | <i>2.6</i>  | <i>4.0</i>  | <i>2.1</i> | <i>0.4</i> | <i>7.4</i> |
| Cereals                                      | 2.8         | 1.1         | 8.7         | 0.3        | 5.5        | 8.4        |
| Pulses                                       | 0.6         | 34.8        | 17.6        | -27.1      | -9.4       | 14.3       |
| Vegetables                                   | 1.9         | -8.6        | -5.3        | 18.8       | -8.2       | 40.6       |
| Fruits                                       | 1.6         | 0.1         | 6.0         | 5.0        | -1.7       | -6.9       |
| Milk   | 4.4         | 3.1         | 2.9         | 4.0        | 2.4        | 1.5        |
| Egg, meat & fish                             | 2.4         | 1.5         | 0.8         | 2.0        | 1.7        | 6.9        |
| <i>Food products</i>                         | <i>9.1</i>  | <i>-1.5</i> | <i>9.5</i>  | <i>1.6</i> | <i>1.0</i> | <i>0.6</i> |
| Edible oils                                  | 2.6         | -3.2        | 8.4         | 2.2        | 7.5        | -5.0       |
| Sugar  | 1.1         | -9.8        | 28.8        | 3.4        | -10.7      | 5.1        |
| Fuel & power                                 | 13.2        | -19.7       | -0.2        | 8.1        | 11.6       | 3.8        |
| <i>Non-Food manufactured products (Core)</i> | <i>55.1</i> | <i>-1.8</i> | <i>-0.1</i> | <i>3.0</i> | <i>4.2</i> | <i>1.9</i> |

Source: Economic Survey, 2018-19, P: Provisional

CPI-C based core inflation, which equals CPI excluding the food and fuel group, has remained above 4 per cent since the start of new series of CPI-C. Core inflation based on CPI-C increased to 5.8 per cent in 2018- 19 from 4.6 per cent in 2017-18. However, it has declined from 5.7 per cent in November 2018 to 4.5 per cent in April 2019.

Food inflation based on Wholesale Price Index too declined over the last two financial years. It was over 0.6 per cent in 2018-19. The decline in WPI food inflation during 2018-19 is mainly due to deflation in pulses, vegetables, fruits and sugar, which together account for 5.2 per cent weight in the overall WPI basket. WPI food inflation was at 4.9 per cent in April 2019 as compared to 3.9 per cent in March, 2019 and 0.8 per cent in April 2018.

Core Inflation corresponds to the component of inflation that is likely to continue for a long period. Thus, core inflation captures the underlying trend of inflation and is, therefore, more stable. Unlike the non-core component of inflation, core inflation is not affected by temporary shocks. In India, core inflation is generally measured by excluding highly volatile components from the headline inflation. By their very nature, food and fuel have been highly volatile. Therefore, we arrive at core inflation by removing food and fuel components from the headline inflation. As headline inflation exhibits volatility due to short run shocks, Central banks in many countries focus on core inflation.

## **CONCLUSION**

The current low level of inflation provides a historic moment in inflation scenario, instilling confidence in price stability. CPI inflation declined to 3.4 per cent during 2018-19, with broad based price decline in all major commodity groups like pulses, vegetables and sugar. It has been below 4 per cent for past eight months. The measure of underlying trends – core inflation has been trending down in the last few months. Food inflation too has declined sharply in the last few months on the back of normal monsoon.

### **1.18 Price Stability**

What is price stability?

When there is no inflation or deflation, we can say that there is price stability. On the other hand, prices neither increase nor decrease but stay stable over time is called also price stability. For example if, Rs 100 can buy the same amount of goods as it could, say one and two years ago, then this can be called a situation of absolute price stability. In a market economy, price changes are a common phenomenon depending on the demand for and supply of goods and services. The price stability means a relative stability in the general price level in an economy, but does not imply the stability of individual prices or fixed prices.

### **1.19 How is Price Stability Measured?**

As we are more interested in the general increases or decreases in prices, rather than the increase or decrease in the price of particular good or service, it is necessary to find a measure that will capture the changes in the general price level. The general price level is measured by statistical tool called a price index. A price index is simply a weighted average of prices of a basket of selected goods and services where weights represent the relative importance of each item as reflected in its relative share in the total value of the basket. There are different price indices, e.g., Consumer Price Indices (CPIs), Wholesale Price Indices (WPIs) and Producer Price Indices (PPIs), which measure the overall trends in price movements at different stages of the process, from production to final consumption. However, CPIs are the most widely used price indices, as their changes represent the price movement faced by most people in a society as consumers. Nevertheless, consumption of WPIs and PPIs is also important, as their movements are leading indicator of future movements of consumer prices.

#### **The Consumer Price Index**

The CPI is a measure that examines the weighted average of prices of a basket of goods and services which are of primary consumer needs. They include transportation, food and medical care. CPI is calculated by taking price changes for each item in the predetermined basket of goods and averaging them based on their relative weight in the whole basket. The prices in consideration are the retail prices of each item, as available for purchase by the individual citizens. Changes in the CPI are used to assess price changes associated with the cost of living, making it one of the most frequently used statistics for identifying periods of inflation or deflation. The U.S. Bureau of Labour Statistics reports the CPI on a monthly basis and has calculated it as far back as 1913.

#### **The Wholesale Price Index**

The WPI is another popular measure of inflation, which measures and tracks the changes in the price of goods in the stages before the retail level. While WPI items vary from one country to other, they mostly include items at the producer or wholesale level. For example, it includes cotton prices for raw cotton, cotton yarn, cotton gray goods, and cotton

clothing. Although many countries and organizations use WPI, many other countries, including the U.S., use a similar variant called the Producer Price Index (PPI)

### **The Producer Price Index**

The producer price index is a family of indexes that measures the average change in selling prices received by domestic producers of goods and services over time. The PPI measures price changes from the perspective of the seller and differs from the CPI which measures price changes from the perspective of the buyer.

#### **1.20 Why is Price Stability Important?**

Maintaining price stability is important as it has a number of benefits. Conversely, when it is not maintained, the resulting outcome of inflation or deflation has a series of adverse impacts. The price stability promotes economic growth, as stable prices allow everyone to make better decision regarding what to produce and how to produce, thus enabling more efficient allocation of resources. Price stability also avoids economic agents diverting scarce resources to hedging against inflation. If price are stable, investors and savers would not demand a risk premium, such as a high interest rate, to compensate them for the risk associated with long term savings and investments. In fact continuous unstable prices are likely to result in demand for a high risk premium, discouraging both long term savings and investment.

Inflation has adverse impacts as it distorts price signals, erodes savings, discourages investment, stimulates capital flow from productive investment to non productive investment such as precious metals and real estate, inhibits growth and makes economic planning a nightmare. It also has a disproportionate effect on the most vulnerable groups in society such as fixed income earners, pensioners and low-income groups as their ability to hedge against inflation is very limited. The cost of inflation rises with its level and volatility and in its extreme form, i.e. hyperinflation, can result in public unrest, causing huge economic, social and political costs. Similarly, deflation also has a number of adverse impacts, such as discouraging investment retarding economic growth, increasing unemployment and poverty and in its extreme form, economic depression which could, result in economic, social and political instability in a country. Achieving and maintaining a low and a stable inflation is a foundation for many of the economic and social objectives that most people would want to

see achieved? Crucially, it is an essential ingredient for sustainable growth in investment, output and jobs.

### **1.21 What are the Factors that Affect Price Stability?**

In a free market economy, prices signal the prevailing demand and supply conditions and their changes. In the short run, there are a large number of factors that affect demand and supply, e.g., weather, social and cultural events, purchasing power of people, consumer preferences, innovations, productivity etc. During harvesting time price of rice fall due to a greater supply and prices of vegetables rise in the drought time, reflecting a drop in production. Similarly, in general, prices of food items tend to rise during festive seasons, such as New Year and Christmas, due to demand being greater than regular supply. However, such price changes resulting from seasonal factors and temporary phenomena and prices readjust themselves within a short period. People tend to demand more goods and services if they have money at their disposal. Prices will rise when the level of aggregate demand rises with the expansion of money supply, if the supply of goods and services does not increase at the same rate as the demand for the same. However, the expansion in supply has its own limitations such as availability of inputs and technological capabilities. Therefore, a greater availability of money in the hands of the people, without a commensurate increase in the availability of goods and services, is the primary demand side factor contributing to inflation.

### **1.22 How is Monetary Policy Used to Achieve Price Stability?**

Monetary policy is the means by which a central bank seeks to achieve its objectives of price stability, by influencing the cost (interest rate) and availability of money (credit). A Central Bank has many instruments that it can be use in the conduct of monetary policy. The most widely used instruments are Statutory Reserve Requirements (SRR) and Open Market Operations (OMO), under the SRR, the central bank can impose a requirement on commercial banks to keep part of their deposits with the Central Bank. By changing the SRR the Central Bank can influence the credit creation ability of commercial banks and hence, broad money supply and market interest rates. Under open market operations, the Central Bank influences money supply and market interest rates by changing policy interests applicable for its transactions with commercial banks and by trading treasury bills and Central Bank Securities.

The process by which the changes in monetary policy instituted by a central bank affects the general price level and output in the economy is referred to as the monetary policy transmission mechanism. There are several channels through which monetary policy changes are transmitted through the economy. These are usually identified as

- i) The interest rate channel, whereby the economy is impacted through changes in interest rates.
- ii) The credit channel, where the economy is affected through changes in the availability of credit.
- iii) The exchange rate channel, whereby the economy is affected through changes in the exchange rate.
- iv) The wealth channel, whereby the economy is affected through changes in asset prices and their impact on wealth.

Of these channels, greater emphasis has been placed on the interest rate and credit channels, particularly in developing countries. Also it is important to note here that there are different and long lags, sometimes extending up to two years, in the process of transmitting the monetary policy impact from the policy instrument (i.e. SRR and OMO) to intermediary targets (such as broad money supply) and subsequently to the final targets (i.e. prices and output).

## **CONCLUSION**

Maintaining price stability in an economy has many benefits, while inflation or deflation has serious adverse economic, social and political impacts. Inflation, in the long run, is essentially caused by excessive money supply, although in the short run there are other factors that could also put pressure on prices. Consequently, one of the most important goals of monetary policy is the containment of inflation, i.e. maintaining price stability. However, monetary policy alone is not sufficient to maintain price stability and monetary policy cannot be carried out in isolation from the macroeconomic policies. In particular, fiscal policy should work in tandem with monetary policy in order to achieve effectively the goal of price stability.



### 1.23 Question

1. Compare and contrast the growth of national income in India.
2. Discuss the inflationary trend in Indian Economy.
3. Discuss the extent of unemployment in Indian Economy.

### 1.24 Key Words

|                 |   |                                 |
|-----------------|---|---------------------------------|
| Inflation       | : | Increase in price               |
| National Income | : | The total output of the economy |
| Price Stability | : | Controlled Inflation            |

### 1.25 Suggested Readings

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## UNIT-II

### AGRICULTURE

#### Structure

- 2.0 Introduction
- 2.1 Objective
- 2.2 Growth and Productivity
- 2.3 Economic Reforms and Indian Agriculture
- 2.4. Agricultural policy
- 2.5 Land Reform
- 2.6 Key Words
- 2.7 Questions
- 2.8 Suggested Readings

#### 2.1 Introduction

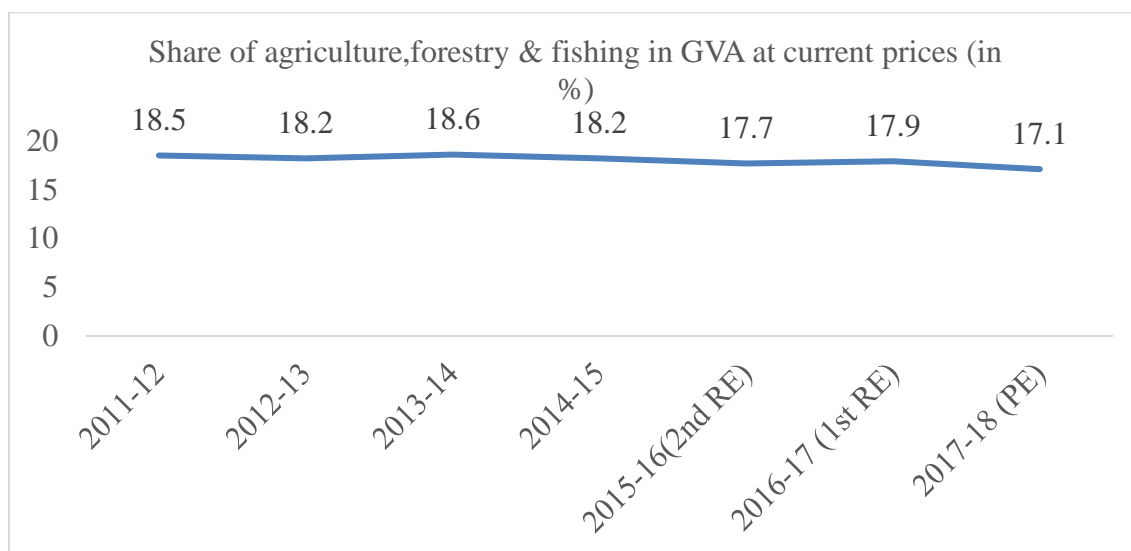
Agriculture plays a great role in the economy of India. It provides livelihood to a large section of population of the country. More than half of the population of the country engaged in agriculture sector directly or indirectly. In 2011, the share of agricultural workers in the total workers of the country was 54.6 percent (Agricultural Statistics at A Glance, 2017, GOI). It also contributes significantly to the Gross Value Added (GVA) of the country. However, the share of agriculture in GVA of the country is declining. Figure 1 depicts that the share of agriculture, forestry and fishing in GVA at current prices has declined from 18.5 per cent in 2011-12 to 17.1 per cent in 2017-18 (PE).

#### 2.0 Objective

The readers are accepted to know and learn about the following;

- Agricultural performance: Growth and productivity
- Economic reforms and their impact on agriculture
- Agricultural policy
- Institutional reforms.

Figure.2.1



Source: Agricultural Statistics at a Glance, 2017, GOI

The important roles of agriculture in the economy of India can be sum-up as:

- Contribution to national income:** The contribution of agriculture to the national income of the country is significant. In 1950-51, more than half of the national income was from agriculture. However, over the times with the development of secondary and tertiary sector, the share of agriculture in the national income of India is declining. The share of agriculture, forestry and fishing in GVA at current prices is 17.1 per cent in 2017-18 (PE).
- Source of livelihood:** Agriculture sector is still the dominant source of livelihood for the Indian population. With the increasing population pressure, the number of people dependent on this sector becomes very large. As per Agricultural Statistics at a Glance, 2017 of GOI, 54.6 per cent of total workers in India were agricultural workers in 2011.
- Supply of food:** A key role of agriculture is that it provides food to the people of the country. In fact, agricultural product consist a large portion of India's export. Agriculture is the major source of food. India, which was largely food deficient at the time of independence, now becomes almost self-sufficient in production of food grains.
- Contribution to industrial development:** Agriculture supply raw materials to various agro-based industries of the country. For instance, cotton and textile industry, jute industry, sugar industry etc. are dependent on agriculture.

- **Contribution to international trade:** Agricultural products dominate the export sector of the country. Cotton textile, tea, coffee, jute etc. are main export items of India. However, the share of agricultural exports in total exports is falling down. In 1960-61, agricultural exports constitute 44.2 per cent of the total export of the country and it came down to 10.3 per cent in 2006-07 (Misra and Puri, 2008).
- **Generating demand for industrial products:** In India, most of the population are dependent on agricultural. Hence, with the increase of agricultural income, demand for industrial outputs increases. Thus with the development of agriculture sector, the industrial sector has also developed in the country.

## 2.2 Growth and Productivity

The growth of agriculture in India in last few years is quite erratic. Table.2.1 depicts that in 2005-06, growth of agricultural GDP was 5.5 per cent which declined to 4.1 per cent in 2006-07. The growth of agricultural GDP reached 6.3 per cent in 2007-08 but in next year it became negative. In 2009-10, growth of agricultural GDP was just 0.4 per cent and it raised to 9.5 per cent in 2010-11.

Table.2.1  
Percentage growth of Agricultural GDP

| Year        | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 |
|-------------|---------|---------|---------|---------|---------|---------|
| Growth rate | 5.5     | 4.1     | 6.3     | -0.3    | 0.4     | 9.5     |

Source: Agricultural Statistics at a Glance, 2017, GOI

The productivity of agriculture is generally examined in two forms.

- Productivity of land and
- Productivity of labor

Productivity of land is given by output per unit of land while productivity of labor is measured as output per person working in agriculture. Food grains dominates the total crops in India. In last few years, the major crops in India experienced increase in their yield. The yield of rice and wheat have increased to 2578 kg/ha and 3371kg/ha respectively in 2017-18 from 2202 kg/ha and 2802 kg/ha in 2007-08. The yield of total food grains was 1860 kg/ha in

2007-08 and it became 2233 kg/ha in 2017-18. The yield of other major crops like total oilseeds, sugarcane, tea, coffee, cotton etc. have also increased in 2017-18 as compared to 2007-08.

**Table 2.2**  
**Yield of major crops in India (in kg/hactare)**

| Year    | Rice | Wheat | Total Cereals | Pulses | Total Food grains | Total Oilseeds | Sugarcane | Tea  | Coffee | Cotton (Lint) |
|---------|------|-------|---------------|--------|-------------------|----------------|-----------|------|--------|---------------|
| 2017-18 | 2578 | 3371  | 2660          | 841    | 2233              | 1270           | 79650     | 2285 | 765    | 477           |
| 2016-17 | 2494 | 3200  | 2525          | 786    | 2,153             | 1195           | 69001     | 2165 | 761    | 512           |
| 2015-16 | 2400 | 3034  | 2392          | 656    | 2056              | 968            | 70720     | 2176 | 876    | 415           |
| 2014-15 | 2390 | 2872  | 2373          | 744    | 2070              | 1037           | 69859     | 2113 | 847    | 461           |
| 2013-14 | 2424 | 3075  | 2438          | 764    | 2101              | 1153           | 69839     | 2121 | 799    | 532           |
| 2012-13 | 2461 | 3117  | 2449          | 789    | 2129              | 1169           | 68254     | 2027 | 846    | 486           |
| 2011-12 | 2393 | 3177  | 2415          | 699    | 2078              | 1133           | 71668     | 1956 | 852    | 491           |
| 2010-11 | 2239 | 2988  | 2256          | 691    | 1930              | 1193           | 70091     | 1726 | 838    | 499           |
| 2009-10 | 2125 | 2839  | 2075          | 630    | 1798              | 958            | 70020     | 1711 | 815    | 403           |
| 2008-09 | 2178 | 2907  | 2183          | 659    | 1909              | 1006           | 64553     | 1679 | 748    | 403           |
| 2007-08 | 2202 | 2802  | 2151          | 625    | 1860              | 1115           | 68877     | 1706 | 761    | 467           |

Source: RBI, accessed from <https://dbie.rbi.org.in/DBIE/dbie.rbi?site=statistics>

Although the land productivity of agriculture in India is increasing, it is low as compared to many other countries. Table 3 depicts that the land productivity in India is below the world average with respect to major crops like rice, wheat, maize and soybean. In comparison to China too, land productivity on India is lower in case of all the four crops considered. Countries like US and Brazil realized higher land productivity than India in respect of rice, maize and soybean.

**Table 2.3**  
**Land productivity across countries, 2018 (in tonnes/hactare)**

| Country      | Wheat      | Rice       | Maize      | Soybean    |
|--------------|------------|------------|------------|------------|
| <i>India</i> | 3.3        | 2.5        | 3.0        | 1.1        |
| Brazil       | 2.7        | 4.2        | 5.5        | 3.2        |
| China        | 5.4        | 4.9        | 6.1        | 1.8        |
| U S          | 3.2        | 6.0        | 11.1       | 3.5        |
| <b>World</b> | <b>3.4</b> | <b>3.1</b> | <b>6.0</b> | <b>2.9</b> |

Source: OECD Data, access from <https://data.oecd.org/agroutput/crop-production.htm> on 16/08/2019

## Causes of low productivity

There are many factors causing low agricultural productivity in India. Some of the major factors resulting low agricultural productivity are:

- (i) **Population pressure:** The population pressure on agriculture in India is very heavy. Still the non-farm sector of the country is not enabled to absorb the increasing population pressure sufficiently. Thus, due to excessive population pressure, the productivity of agriculture sector in India is low.
- (ii) **Social factors:** Social factors like conservative attitude of farmers, illiteracy, ignorance, superstitions etc. prevent the farmers to adopt new methods of cultivation in the country. Due to such factors they prefer to stick with the less productive traditional method of cultivation.
- (iii) **Land degradation:** A large extent of land in India has degraded resulting low agricultural output. As per government of India, around 43 per cent of land in India suffers from high degradation resulting in 33-67 per cent yield loss (Misra and Puri, 2008).
- (iv) **Uneconomic holdings:** The landholdings in India are small and fragmented. Most of the holdings are small and marginal. With the increase population and fragmentation due to inheritance, the size of land holdings in the country is declining day by day. The small and fragmented holding basically prevents the adoption of farm mechanization due to many reasons. As the results the production and productivity of land remain low.
- (v) **Land tenure pattern:** The land tenure system in India is quite defective. Even after implementation of land reform measures, the position of tenants is not good. A large land owner has still a strong hold on the rural economy and exploits the tenants.
- (vi) **Lack of credit:** The economic conditions of most of the farmers in India are very poor. They need to depend on borrowed money for financing their cultivation. However, there is problem of institution credit sources from which loan are available without complex procedure. The non-availability of credit limits the adoption of HYV seeds, use of fertilizer etc. resulting lower productivity of agriculture.

- (vii) **Traditional method of cultivation:** In India the modes of cultivation followed by farmers are traditional due factors like illiteracy, conservative nature, lack of credit etc. of farmers. However, with passes of time this problem is declining.
- (viii) **Lack of irrigation facilities:** Most of the India farmers are dependent on weather for their cultivation due to inadequate irrigation facilities. Due to which, the extent of adoption production and productivity generating actives such as intensive cultivation, adoption of HYV seeds etc. are low.
- (ix) **Lack of marketing facilities:** Lack of marketing facilities to sell the output produced is another important factor resulting low agricultural productivity. The inadequate marketing facility for agricultural output reduces the incentives of farmers to produce more.

To raise the productivity of agriculture in India, following measures can be suggested:

- Proper implementation of consolidation of land holding measures.
- Enhancement of farm mechanization. Emerging rental markets of farm machinery can play an important role here.
- Skilling of farmers
- Facilitation of institutional credits as a larger extent and easier way.
- Development irrigation facilities.
- Provisioning of adequate markets for agricultural output.
- Development of different factor markets in agriculture such as land lease market, rental markets of agricultural capital goods etc.
- More emphasis on agricultural research and development.

## 2.3 Economic Reforms and Indian Agriculture

In India, an era of new economic reforms was started in 1991 by P.V. Narsimah Rao led Union Government. The New Economic Policy (NEP) has been introduced in response to the suggestions made by World Bank and the International Monetary Fund. The two broad objectives of the new economic policy were:

- (i) To correct macro imbalances which had destabilised the economy during the late 80's and early 90's, such as acute foreign exchange shortage, high rate of inflation,

unsustainable fiscal deficit and current account deficit and growing internal and external debts.

(ii) To accelerate the overall growth of the economy.

The policy consists of two major set of measures for fulfilling the above-mentioned objectives.

- Stabilization of the economy at the macro level and
- Structural adjustments in the economy.

According Crabo et. al (Soni, 2004), structural adjustments refer to measures relating to improvement in the productivity of labour and capital in specific sectors of the economy. This policy sought out measures of *Liberalisation*, *Privatisation* and *Globalisation* (often called as LPG) for almost every sectors of Indian economy.

At the time of announcement of the main features of economic reforms, agricultural sector was seemed to be excluded. It was only in 1995 that the draft farm policy was announced which aims:

- To globalize the Indian agricultural by exporting more agricultural product.
- To reduce the burden on land by developing agro-based industries and
- To ensure more investment and credit flow to agriculture. By increasing productivity of agriculture and by ensuring remunerative minimum suppose prices, the policy aimed to make agriculture as a profitable profession.

The impact of economic reforms on agriculture in India can be discussed as follows:

(i) **Structural Adjustments in the Non-agricultural Sectors and Agriculture:** The structural adjustment in non-agriculture due to NEP was expected to benefits agriculture in several ways. *First*, there will be reduction in import tariffs on manufactured goods which will end the discrimination against agriculture. *Secondly*, due to patenting of research in the country under GATT, it was expected to encourage private research in agriculture. *Thirdly*, potential expansion of industrialization due to NEP was expected to contribute in development of agriculture sector in various ways. *Fourthly*, through infrastructure development, agriculture sector was expected to be benefited immensely.



**(ii) Agriculture and Macro Economic Stabilisation Measures:**

Reduction in Fiscal Deficit (FD) is an important macro-economic stabilization measure. The fiscal deficit of India was 7 per cent of GDP in the year 1990-91 which should be around 3 per cent of GDP in developing country like India. Thus, there was a need to reduce FD in India. Reduction of FD needs reduction of expenditure and increase of revenue collection. So far as the reduction of expenditure in agricultural sector is concerned, it can be brought about mainly by:

- a. Reduction in Input Subsidies:** Subsidies are paid to the farmers on the purchase of fertilisers, canal water, electricity, credit etc. Among these, fertilisers and provision of credit are subsidised by the central government and the rest are paid by the state governments. Subsidies given to the agricultural inputs have become a debatable issue after the introduction of economic reforms. At the time of green revolution, these subsidies were given to the farmers as an incentive for adopting newly introduced seed-cum-fertiliser technology. Gradually, the amount paid on subsidies began to rise which was estimated by Rao and Gulati in early 90's. After so many discussions and arguments, government of India on May, 1997 has listed the subsidies granted for fertilisers, irrigation and power as subsidies on non-merit economic services and suggested that these subsidies should be abolished. However, in order to ensure that their withdrawal does not lead to any serious repercussions, these should be withdrawn in a phased manner. Such a step will reduce the fiscal deficit, improve the efficiency of resource use, spare funds for public investment in agriculture and will also be in line with the guidelines implied by the policy of economic reforms which suggests that the production as well as allocation of resources should be determined solely by the market forces and in an atmosphere of competition. If their withdrawal is accompanied by non-price yield increasing steps like further improvement in the agricultural technology, timely supply of physical inputs, then only the possible adverse effect of elimination of input subsidies will be softened.
- b. Reduction/ Elimination of Food Subsidies:** Food Subsidy is the difference between the total expenditure incurred by the government on procuring and distributing the food and what the government actually charges from the beneficiaries of the PDS (Public Distribution System). It has been estimated that 70 per cent of total food subsidies are used up in meeting the cost of storing and transporting the crops and for administering PDS. So, the ultimate beneficiary gets

the rest 30% of subsidies. The total food subsidies paid by the government in 2018-19 was 1.71 lakh crore (Economic Times, June5, 2019) against Rs. 17612 crore in 2001-02. The protagonists of economic reforms have advocated the abolition of food subsidies so as to contribute the agricultural sector to the reduction of fiscal deficit.

- c. Reduction in public investment:** After introduction of economic reform, public investment in agriculture has been declined. The real public investment (at 1993-94 prices) was Rs.7371 crore in 1980-81 which declined to Rs.4971 crore in 1995-96 and in 1999-2000, it further declined to Rs.4753 crore.

**(iii) Structural Adjustments in Agricultural Sector:** The structural adjustment in agriculture during the period of economic reform can be discussed as follow.

- a. Marketisation of agriculture:** It implies that the decision-making process in agriculture should be governed by the market forces only. The ways of marketisation of agriculture are-

- Purchase of inputs and sale of agricultural crops at market determined prices.
- Development of competitive domestic product market.
- Facilitation of free land lease market.
- Development of competitive markets for domestic products.
- No procurement prices, i.e. purchase of foods for buffer stock, meeting other calamities must be in prevailing market prices.
- Marketisation of rural financial sector.

- b. Globalisation of agriculture:** Globalisation involves a free flow of foreign capital in to Indian agriculture. However, foreign capital cannot be associated with the ownership of land or crops cultivation (except foreign firms in tea, coffee, rubber plantation, etc). So, scope for foreign investment is associated with the off-farm activities, such as development of infrastructure like irrigation projects, etc. Besides these, MNCs are allowed to develop agro-processing industries (fruit and vegetable processing).

- c. Privatisation of agriculture:** Privatisation, as a part of economic reforms has been identified as a process of dismantling of the public sector. In other words, in India, privatisation implies transferring the ownership of production units like railways, steel plants, coal mines, fertiliser factories, etc. to private individuals or corporations. From this viewpoint, there is very little scope for privatisation of

Indian agriculture as they are already in private hands. In this context, new economic policy has suggested that privatisation can be associated with the fields of production of agricultural inputs as well as processing of agricultural produce.

- d. Liberalisation of Agriculture:** Liberalisation has been identified as a complete freedom of enterprise, reduction in govt regulations for economic activities to the minimum and reduction in tariffs and taxes.

In this light, agriculture is already liberalised from many angles-

- Sale and purchase of land, except when its purchase makes the land holding move above the ceilings as imposed by law, is allowed.
- There is complete freedom to the farmers to produce anything they like, on their farms.
- Government regulation with regard to the movement of crops within the country have almost been removed.

## 2.4. Agricultural policy

The agriculture sector in India suffers from many problems. Low productivity, lack of irrigation facilities, small and fragmented land holdings, exploitative land tenure system etc. Hence, to promote the agricultural development and to get self-sufficiency in production of agricultural output, the governments of India has been under taken various measures during the post-independence period. The important policy measures introduced for agricultural developments are discussed below.

- a. Technological measures:** To meet the growing needs of the population and to support industrial development, steps were taken to raise agricultural production substantially through extensive and intensive cultivation. For extensive cultivation promoted irrigation facilities and converted land unfit for cultivation to fit. For intensive cultivation, new agricultural strategy was introduced in the form of a package programme in some selected regions of the country. To extent and sustain the new agricultural strategy, steps were taken to increase production of HYV seeds, fertilizers and pesticides within county and imported depending on needs. These measures results substantial increase of production and productivity of agriculture.
- b. Land reforms:** The land tenure system at the time of independence of India were highly exploitative in nature. Zamindari system was more exploitative in nature,

under which zamindars took away the surplus output produced by cultivators over the minimum subsistence. In order to stop the exploitation of the actual tillers and to confer the ownership on land to them, land reform was introduced by Government of India in the post-independence period.

The basic objectives of land reform measures in India were:

- *To remove impediments, arise from agricultural structure inherited from the past, to raise the production of agriculture.*
- *To eliminate exploitation and social injustice in the agriculture sector, to provide security to tenants and equality in status and to provide opportunity to rural population of all sections.*

The different land reform measures are:

- Abolition of Intermediaries-legislations were adopted for abolition of exploitative land tenure system in the country namely zamindari system, mahalwari system and ryotwari system to provide land to tiller
  - Tenancy reforms- under tenancy reform to protect the tenants, measures were taken to control rent on land, to provide security to tenants and to accord ownership right on land.
  - Reorganization of agriculture- measures also taken to set ceiling on land ownership, for consolidation of holdings and encouraging cooperative farming.
- c. Institutional credit:** government of India also initiated measures to expand institutional credit mainly through cooperatives and commercial banks. After bank nationalization in 1969, attention on agricultural credit was enhanced. Regional Rural Banks and NABARD were set-up to expand the agricultural credits in the country.
- d. Procurement and support prices:** Procurement and support prices was announced to ensure that the farmers are not penalized for producing more. By fixing fairly high prices for agricultural outputs, government aims to protect the farmers from losses when there is surplus production. This provides incentives to produce more to the farmers.
- e. Subsidies on agricultural inputs:** To support the farmers, government provides large scale subsidies on agricultural inputs such as irrigation, fertilizer, power etc. Under subsidization policy, government facilitates farm inputs to farmers at a price which is well below the open market price. By encouraging the use of modern inputs, input subsidization aims to increase agricultural production and productivity.

- f. **Rashtriya Krishi Vikas Yojana (RKVY):** In 2007-08, RKVY was launched to provide incentives to states to increase public investment in agriculture and allied sectors so that 4 per cent growth of the sector can be achieved. The states were provided Rs. 22,409 crore under the RKVY during 11<sup>th</sup> five year plan. This permits states taking national priorities as sub-schemes. The sub-schemes include – Bringing Green Revolution to Eastern India, Integrated Development of 60000 pulses villages in rainfed areas, Promotion of Oil Palm, Initiative on Vegetable Clusters, Nutri-cereals, National Mission for Protein and Supplements, Accelerated Fodder Development Programme, and Saffron Mission.
- g. **National Food Security Mission (NFSM):** NFSM was also initiated in 2007-08 with the aims to raise production of rice, wheat and pulses by 10 million, 8 million and 2 million tonnes respectively at the end of 11<sup>th</sup> plan. The ways set to achieve these targets were- area expansion, productivity enhancement, restoring soil fertility and productivity, creation of employment opportunities and enhancement of farm level economy. Promotion and expansion of use of improved technologies were the basic strategies of this mission.
- h. **Macro Management of Agriculture (MMA):** MMA is a centrally sponsored schemes introduced in 2000-01. Ensuring that central assistance is spent for agriculture through focused and specified interventions is the objective of MMA. At the beginning, 27 schemes sponsored by central government were there which are related to co-operative crop production programmes (for rice, wheat, coarse cereals, jute and sugarcane), watershed development programme, horticulture, fertilizer, mechanization and seed production programmes. MMA was revised in 2008-09 to improve its efficiency in supplementing/complementing efforts of states in improving agricultural production and productivity. To avoid overlapping and duplication of efforts, role of the scheme has been redefined. Further,
- i. **New agricultural policy:** The National Agriculture Policy, announced on July 28, 2000 by GOI seeks to *‘actualise the vast untapped growth potential of Indian agriculture, strengthen rural infrastructure to support faster agricultural development, promote value addition, accelerate the growth of agro business, create employment in rural areas, secure a fair standard of living for the farmers and agricultural workers and their families, discourage migration to urban areas and face the challenges arising out of economic liberalization and globalization’* (Misra and Puri, 2008). This policy over the next two decades aims:

- A growth rate in agriculture of more than 4 per cent per annum.
- Growth by efficiently using resources and conservation of soil, water and bio-diversity.
- Growth with equity.
- Demand driven growth that caters to domestic markets and maximizes export benefits of agricultural products.
- Technologically, environmentally and economically sustainable growth.

The important features of NAP are:

- Privatization of agriculture and price protection of farmers in the post quantities restrictions regime. It focuses on efficient use of resources and technology facilitation of credit to farmers sufficiently and protecting them from fluctuation in prices.
- Promotion of private sector participation to enhance technology transfer, capital inflow and development of markets for agricultural output through contract farming and land leasing arrangement.
- Encouragement of private investment in agriculture.
- Formulation of commodity-wise strategies in order to protect farmers from price fluctuation in the international market.
- Enlargement of future markets to minimize fluctuation in commodity price and to reduce risks.
- Meeting the requirement of milk, meat, egg and livestock products and to increase the role of draught animals as energy source for farming operation, 'National Livestock Breeding Strategy' was envisaged.
- High priority to evolvement of location-specific and economically viable varieties of crops, livestock species and aquaculture.
- Reduction of restrictions on movement of agricultural commodities within the country.
- Review of excise duty on inputs use in agricultural production and post-harvest storage and processing.
- Adoption of measures to keep agriculturists outside the regulatory and tax collection system.
- Priority on rural electrification for agricultural development.

- Encouragement of use of new and renewable sources of energy for irrigation and other agricultural operation.
- Progressive institutionalization of rural and farm credit timely and adequately.
- Provisioning of crop insurance.

**j. National Policy for Farmers (NPF):** As per recommendation of National Commission on Farmers, GOI approved NPF, 2007 after consulting with state governments. NPF broadly covers:

- Improvement in production and productivity of agriculture along with economic well-being of farmers.
- Possession or getting access to productive asset or marketable skill has to be ensured.
- Priority to increasing awareness of using water efficiently and realization of maximum yield and income per unit of irrigation.
- Encouragement of new technologies such as biotechnology, ICT, renewable energy technology, space applications, Nano-technology etc.
- In order to coordinated agricultural bio-security programme, it was decided to establish National Agricultural Bio-security System.
- To maintain seeds quality and soils health, soil health passbook containing integrated information on farm soils with corresponding advisories is to be issued.
- Support services like creches, child care centers and adequate nutrition to women working in field would be funded.
- Galvanize the financial services for timely, adequate and easy reach to the farmers at reasonable interest rate.
- Setting-up of Gyan Chaupals at village level with the help of ICT and farm schools through state governments for strengthening extension services.
- Effective implementation of Minimum Support Price mechanism.
- Expansion of food security basket to include nutrition's millets such as bajra, jowar, ragi and millets mostly grown in dry land farming areas.
- Steps to put in place an appropriate social scheme for farmers.

**k. Doubling of farmers income:** In India, the strategies undertaken for agricultural development in past aims only in enhancing agricultural output and achieving food security. However, such strategies did not try to increase the farmers' income and also did not suggest any measures to improve farmers' welfare (Chand, 2016). Such

strategies did not necessarily result in increase in farmers' income and welfare for all even though their output raised. In fact, the income of farmers kept low as compared to the income of the non-farm workers. Hence, Government of India in 2015 has set the goal of doubling farmers' income by 2022-23 to improve the conditions of farmers in the country which is also a part of second goal of Sustainable Development Goals.

As income of agricultural households of different states and Union Territories(UTs) are not same, the equitability in doubling of farmers income requires that income of such households in states/UTs where income is less than national average should grow faster than the income of such households in states/UTs where income is less than national average. Accordingly, the Doubling Farmers' Income (DFI) committee has devised a hypothetical reference scenario. The DFI committee has identified seven major sources of growth operating inside and outside the agriculture sector to achieve the target of doubling of farmers income. These sources of growth are (Report of the Committee on Doubling Farmers' Income, 2017):

- Improvement in crop productivity
- Improvement in livestock productivity
- Resource use efficiency or saving in cost of production
- Increase in cropping intensity
- Diversification towards high value crops
- Improvement in real prices received by farmers and
- Shift from farm to non-farm occupations

Among these seven sources of growth of farmers' income, first five operates within agriculture and the rest two operates outside the sector.

In order to achieve the target of doubling farmers income, GOI has adopted Pradhan Mantri Krishi Sinchai Yojana on July 1, 2015. PMKSY aims to improve the water supply for cultivation. Organic farming is another scheme started by GOI. The Pradhan Mantri Kisan Sampada Yojana is also launched to develop the food-processing capabilities. The PMKSY benefitting 20 lakh farmers and creating around 5 lakh employment opportunities (Singh, 2017). With the aim of development of agricultural marketing, the electronic-National Agricultural Market was launched by GOI. The pradhan Mantri Fasal Yojana is adopted to reduce the risk of crop loss by farmers.



## 2.5 Land Reform

There were three types of land tenure system in India at the time of independence.

- a. **Zamindari system:** This system was created by East India Company in 1793. Under this system, zaminders collected the land revenue from farmers.
- b. **Mahalwari system:** William Bentinck started this system in Agra and Oudh. Village headman collected land revenue from tenants for the whole village.
- c. **Ryotwari system:** This system was introduced in Tamil Nadu first. Under this system, the farmers paid the land revenue directly to the state.

There were three types of tenants:

- a. Occupancy tenants: Who enjoy permanent and heritable rights on land.
- b. Tenants-at-will: Who did not enjoy any security of tenure.
- c. Sub-tenants: those whose condition are also same with tenants-at-will but while sub-tenants are appointed by occupancy tenants, latter are appointed by landlord.

The land tenure systems at the time of independence of India were highly exploitative in nature. Zamindari system was more exploitative in nature, under which zamindars took away the surplus output produced by cultivators over the minimum subsistence. In order to stop the exploitation of the actual tillers and to confer the ownership on land to them, land reform was introduced by Government of India in the post-independence period. The basic objectives of land reform measures in India were:

- *To remove impediments, arise from agricultural structure inherited from the past, to raise the production of agriculture.*
- *To eliminate exploitation and social injustice in the agriculture sector, to provide security to tenants and equality in status and to provide opportunity to rural population of all sections.*

The measures undertaken to achieve the objectives of land reforms were:

### a. Abolition of Intermediaries

The exploitative agrarian relation was recognized as a major cause of stagnation in the agriculture. As already mentioned all the three types of land tenure systems in India were exploitative in nature which cost the agriculture very much. The zamindari system was prevailing on around 57 per cent area of the country. The legislation for

abolition of intermediaries aims to provide land to tiller. In 1951, passed legislations for the abolition of zamindari system. However, it was the first five year plan during which most of the work relating to enactment of laws and acquisition of areas was carried out. It has been estimated that 173 million acres of land was acquired from intermediaries as a result of which two crore tenants were came into direct relation with the state. The enactment of legislations to abolish intermediaries result decline of exploitation and oppression of tenants to a great extent.

#### **b. Tenancy reforms**

With the abolition of tenancy, the sub-tenants still remained unprotected. There are also some other problems related with tenants. Hence to minimize the evils of tenancy cultivation some tenancy reform measures were undertaken.

**Regulation of rent:** The rent charged by zamindars during pre-independence period was very high. For instance, the rent on land was around 80 per cent of the produce in Punjab. Such high rate of rent puts heavy burden of tenants. It gave the zamindar the power to squeeze land from tenants who were unable to the rent. As a result, after 1947, legislations were enacted to regulate the rents and to reduce its burden on tenants. As per first five year plan, rent should be  $1/4^{\text{th}}$  or  $1/5^{\text{th}}$  of the total produce.

**Security of tenants:** Legislation for security of tenants was passed in most of the states in order to protect them from ejectment and grant them permanent rights on land. The legislation for security of tenants was enacted with the following aims-

- Ejectments do not take place except in accordance with the provisions of the law.
- Land may be resumed by an owner, if at all, for 'personal cultivation' only and
- In the event of resumption, the tenant is assured of a prescribed minimum area.

**Ownership right for tenants:** Land reform made the provision of ownership rights for tenants. Provision of ownership rights on land for tenants was assumed to be very much desirable to bring tenants in non-resumable area in direct contact with the state by second five year plan. Accordingly, some states adopt legislations for providing right of ownership on tenants. In this regard West Bengal, Karnataka and Kerala achieved more success than other states adopted such legislations. This legislation gave ownership rights to around 12.42 million tenants over 6.32 million hectares land. However, overall success of this legislation was far away from expectation.

### c. Reorganization of agriculture

***Ceiling of farm holdings:*** A ceiling on farm holdings implies a statutory absolute limit on the land possessed by an individual. Land reforms made the provision that all lands of the landlords beyond a certain limit would be taken away by government of state and distributed to small proprietors to make their holdings economically viable or to landless laborer to meet land demand. To make the policies relating to imposition of ceilings on land holding by states of India, a conference of Chief Ministers was held in July 1972. The important features of the new policy on ceiling on land holdings undertaken in the conference were-

- Lowering of ceiling to 18 acres of wet land and 54 acres of unirrigated land.
- The changeover to family rather than the individual as the unit for determining land holding lowered ceiling for a family of five.
- Fewer exemptions from ceiling.
- Retrospective application of the for declaring benami transactions null and void
- In order to insulate the measures from challenge in courts of law, jurisdiction of civil courts has been barred; most of these laws have been included in the Ninth Schedule of the constitution, which places them beyond any challenge in courts of law on grounds of infringement of Fundamental Rights.

***Consolidation of holdings:*** The land holdings in India are small and fragmented. Small and fragmented holdings affects agriculture by limiting mechanization, wasting land, creating problems in land management etc. To solve the problem of fragmentation of land, the measure of consolidation of holding is very useful. Accordingly, Government of India adopted the method of consolidation of holdings through which a farmer was given one consolidated holding equal to the total land in different plots possessed by him/her. The programme of consolidation of holding was made voluntary at the beginning but later on it was made compulsory. The progress of consolidation of holding was very slow. As on March 31, 2002, only 66.10 million hectares out of 142 million hectare total cultivable area were consolidated. Thus, only in 1/3<sup>rd</sup> of the consolable area of the country has been consolidated. A common problem in consolidation of holdings in India was that the rich and influential group often manage to get fertile and well situated land while the poor and uninfluential get inferior land.

**Cooperative farming:** Due to sub-division of holdings, land holdings are becoming smaller and smaller. In order to address this problem, cooperating farming was advocated in India. The idea of cooperative farming was that farmers having very small holdings should join hands and pool their land for cultivation. Such farming can help the farmers to get the profits of large scale farming. Under cooperative farming, marketable surplus of food grains and industrial raw materials can be obtained more easily from large farms and can be transport to the market easily and at a large scale. Such farming also encourage mutual confidence, collective action, joint thinking and feeling of fraternity and friendship among the members.

### **Evaluation of Land Reform**

- a. The definition of personal cultivation was not satisfactory. Nowhere the meaning of personal cultivation was mentioned clearly. This result large scale ejectment of tenants.
- b. Zamindars under the name of ‘absentee landlords’, still retain substantial areas of cultivable land for their personal cultivation. Thus, the objectives of abolition of zamindars was defeated.
- c. Zamindars transferred land at large scale to their family members to escape the laws related to land ceiling. Initially for some times in some states there were no law to prevent such transfer of land. Even if law exists in some states, due to unsatisfactory definition of personal cultivation, zamindars still get the scope for such transfer of land.
- d. The share-croppers were not given the status of tenants in some state although they cultivated a substantial part of land. Thus, the rights of tenants were not protected with the help of laws related to tenancy reforms.
- e. Quite often, landlord forced their tenants to voluntary surrender the land which are being cultivated by tenants. For this, tenants were threatened and even beaten up. In such cases law cannot help tenants if they surrender their land on their own accord.
- f. The levels of ceilings on land were different across some states and even in areas within same state. This creates lots of confusions and disputes.
- g. Lack of political will was a major problem in implementation of land reform. It was observed that governments were not interested in implementation of legislations enacted under land reform. Governments were merely trying to wear the progressive

and socialistic look while continuing to function under the directions and pressures of large farmers.

- h. There were also lacks of interested of bureaucracy in implementing the land reforms. In fact, politician and bureaucrats were linked up. Whenever, any enthusiastic administrator wanted to implement the land reform measures, they were transferred immediately.

## 2.6 Key Words

|                      |   |  |
|----------------------|---|--|
| <b>GDP</b>           | : | Gross Domestic Product   |
| <b>Policy</b>        | : | a documentary orientation and framework targeted to be achieved      |
| <b>Reform</b>        | : | refining and redefining the existing forms of framework              |
| <b>Consolidation</b> | : | realigning and combining the scattered and fragmented pieces of land |

## 2.7 Questions

1. Discuss the growth and productivity trends in Indian Agriculture. What are the causes of low productivity of agriculture in India? Suggest some remedies.
2. Discuss the impacts of economic reforms on agriculture in India.
3. Discuss the various agricultural policies under taken by government of India.
4. What are the components of land reforms in India? Evaluate the land reforms.

## 2.8 Suggested Readings

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## UNIT - III

### INDUSTRY

#### Structure

- 3.0 Introduction
- 3.1 Objectives
- 3.2 Evolution of Indian industries: An overview
  - 3.2.1 Indian Industry: An overview of the Current Scenario
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- 3.5 Public Sector in India
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#### 3.0 Introduction

Prior to the coming of the Britishers, India was industrially more advanced compared to the West European countries. The Britishers systematically destroyed the industrial base of India. As a result, India inherited a weak industrial base, underdeveloped infrastructural facilities and a stagnant economy at the time of Independence.

So, in 1947 when India became independent, the industrial base of the economy was very small and the industries were plagued with many problems such as shortage of raw materials, deficiency of capital, bad industrial relations, etc. The investors were not sure about the industrial policy of the new national government and the industrial and investment climate was shaped with reservations and doubts. In December 1947 the Industrial Conference was called by the Government in order to improve matters and remove suspicions and uncertainties in the minds of the investors and entrepreneurs. A resolution was adopted in the Conference which called for industrial peace and recommended a clear division of industries into public and private sector.

### 3.1 Objectives

After going through the chapter you should be in a position to answer the following questions:

- Give an overview of the evolution of the Indian Industry since independence?
- What are the main features of the Industrial Policy Resolution of 1948 and 1956?
- Discuss the role and growth of Public Sector Units in the Indian Economy?
- What has been the impact of Economic Reforms on the Industrial Sector?
- What do you understand by disinvestment? Discuss the emergence of the disinvestment Policy?

### 3.2 Evolution of Indian industries: An overview

Industrial development during the period of planning can be divided into four phases. The first phase covered the period of the first three plans (1951 to 1965), which laid the basis for industrial development and a base for a strong industrial structure; the second phase covered the period between 1965 to 1980, which was marked by industrial deceleration and structural retrogression; third phase between 1980 to 1991 was marked by industrial recovery; and the fourth phase covering the period beyond 1991-92 onwards is marked as the post reform period.

On the eve of the *First Plan*, the industrial development in India was confined largely to the consumer goods sector, the important industries being cotton textiles, sugar, salt soap, leather goods and paper. Thus, the industrial structure exhibited the features of an underdeveloped economy. As far as the capital goods sector was concerned, only a small beginning was made. The consumer goods industries were well established, while the producer goods industries lagged behind. The *Second plan* gave to priority to programmes of industrialization. The Strategy was “if industrialization is to be rapid enough, the country must aim at developing basic industries and those industries which make machines needed for further development. This calls for substantial expansion in iron and steel, non-ferrous metals, coal, cement, heavy chemicals and other industries of basic importance...”. The *Third Plan* pressed forward the establishment of basic capital and producer goods industries, with



special emphasis on machine building programme so that the growth of the economy would be self-sustaining in the coming years. The structure of industrial development was promoted and nurtured in the Fourth and Fifth plans. The Sixth plan noted that industrial production had increased by 5 times during the last thirty years. It also noted that the industrial structure had diversified considerably producing an entire range of consumer, intermediate and capital goods, but was not sufficiently guided by cost considerations. The plan also noted that the public sector had failed to generate enough resources and that the problem of regional disparities in industrial development was very acute and serious. The Sixth Plan saw wide range changes in the industrial policy of the government and the industrial and trade policies were substantially liberalized. The *seventh Plan* laid emphasis to industrial and mineral programmes in the public sector. In line with the liberalization of industrial policy, the *Eighth Plan* placed less emphasis on quantitative targets. It sought to achieve the desired growth in different sectors primarily through modifications in industrial, trade, fiscal policies and changes in duties and taxes rather than through quantitative restriction on import/exports or licensing mechanism. The *Ninth plan* made broad sector wise allocation which included the village and small-scale industries as well. In the *Tenth Plan* there was reduced allocation to industry keeping in line with the government's strategy to liberalize and privatize and give more space to the private sector to expand its activities. The *Eleventh* and *Twelfth plans* set ambitious target of 10 per cent per annum growth for the industrial sector and at the same time tried to follow the re-oriented industrial development strategy towards creating an enabling environment for the private sector to reach its full entrepreneurial potential and thereby contribute towards production, employment and income generation in the country.

### **3.2.1 Indian Industry: An overview of the Current Scenario**

Industry plays a decisive role in determining the overall growth of an economy. The industrial sector performance during 2018-19 has improved as compared to 2017-18. As per the provisional estimates of the Annual National Income 2018-19 released by the Central Statistics Offices (CSO), the growth of industry real Gross Value Added (GVA) was higher at 6.9 per cent in 2018-19 as compared to 5.9 per cent in 2017-18. Construction and manufacturing sectors have experienced 8.7 per cent and 6.9 per cent growth rate respectively during 2018-19. The mining and quarrying sector has experienced sluggish growth in 2018-19 as compared to 2017-18.

The industrial growth in terms of Index of Industrial Production (IIP) during 2018-19 stood at 3.6 per cent as compared to 4.4 per cent growth rate in 2017-18. The moderation in 2018-19 has been mainly due to subdued manufacturing activities in Q3 and Q4 due to slower credit flow to medium and small industries, reduced lending by NBFCs owing to liquidity crunch, tapering of domestic demand for key sector such as automotive sector, pharmaceuticals, and machinery and equipment, volatility in international crude oil prices etc.

The Index of eight core industries measures the performance of Coal, Crude Oil, Natural Gas, Petroleum Refinery Products, Fertilizers, Steel, Cement and Electricity. The eight core industries comprise about 40.3 per cent weight in the IIP. The overall Index of the eight core industries registered a growth rate of 4.3 percent during 2018-19 similar to the increase achieved in 2017-18. The production of Coal, Steel, Cement, Electricity, Refinery Products, Natural Gas and Fertilizers registered positive growth rate in 2018-19 with Cement and Coal registering a higher growth rate of 13.3 per cent and 7.4 per cent respectively.

The Government has initiated a number of measures in crucial sectors to accelerate higher manufacturing growth such as Start-up India, Ease of doing Business, Make in India, Foreign Direct investment Policy reforms. India has considerably improved its ranking to 77<sup>th</sup> position in 2018 among 190 countries assessed by the World Bank Doing Business Report, 2019 in which India has leapt 23 ranks over its rank of 100 in 2017.

A robust and resilient infrastructure is fundamental and essential for budding industries. While India has invested in its infrastructure over the years, the challenge is to mobilize adequate investment in infrastructure sector which runs into several trillions of dollars. The investment gaps in the infrastructure would have to be addressed through various innovative approaches with the collaboration of both public and private sector. The need of the hour is a robust industry with a buoyant and resilient infrastructure.

### **3.3 Industrial Policy Resolution of 1948**

The Government of India on 6 April, 1948 issued the first important industrial policy resolution. Following were the main features of the 1948 industrial policy:

1. **Acceptance of the importance of both Private and Public Sectors:** The industrial policy resolution accepted the importance of both public and private sectors in the industrial economy of India. The resolution adopted a two-pronged strategy – Firstly, expansion of the State sector in areas where it was operating and in new lines of production, and secondly, allowing private sector to exist and expand under proper direction and regulation.
2. **Division of the industrial sector:** The resolution divided industries into four categories. These categories were as follows:
  - (i) *Industries where State had a monopoly:* In this category three fields of activity were specified – arms and ammunition, atomic energy and rail transport.
  - (ii) *Mixed Sector:* In this category the following 6 industries were specified – coal, iron and steel, aircraft manufacture, ship building, manufacture of telephone, telegraph and wireless apparatus and minerals oils.
  - (iii) *The field of government control:* In this category 18 industries of national importance were included. Some of the industries included were – automobiles, heavy chemicals, heavy machinery, machine tools, fertilizers, electrical engineering, sugar, paper, cement, cotton and woolen textiles.
  - (iv) *The field of private enterprise:* All other industries not included in the above three categories were left open to the private sector.
3. **Role of small and cottage industries:** The 1948 Resolution accepted the importance of small and cottage industries in industrial development. These industries were particularly suited for the utilization of local resources and for the creation of employment opportunities. For a long period of time they had to face acute problems of raw material, capital, skilled labour, marketing etc. So, it was emphasized in the industrial policy that these problems of the small scale and cottage industries should be solved by the Central Government with the cooperation of State governments.
4. **Other important features of the industrial policy:** The role of foreign capital in industrial development of the economy was recognized but the need of regulating and controlling it according to the needs of the domestic economy was believed to be critical. It was therefore stated that in those industries where foreign investment was to be done, Indians should have a major say in the ownership and management. The Resolution called for harmonious relations between the management and labour since this was necessary for industrial development. It also called for just labour conditions

wherein workers would be given fair wages. Further, for purposes of maintaining industrial peace, labour participation in management was considered essential.

### 3.4 Industrial Policy Resolution of 1956

The nature and pattern of Industrial development in the country was determined by the 1948 policy which remained in force for full eight years. The country had completed one five-year plan period 1951-56. 'Socialist pattern of society' was declared as the goal for the country and hence a new industrial policy seemed essential which came in the form of Industrial Policy Resolution of 1956.

The 1956 Resolution laid down the following objectives for the industrial policy:

- (i) To accelerate the rate of growth and to speed up industrialization;
- (ii) To develop heavy industries and machine making industries;
- (iii) To expand public sector;
- (iv) To reduce disparities in income and wealth;
- (v) To build up a large and growing cooperative sector; and
- (vi) To prevent monopolies and the concentration of wealth and income in the hands of a small number of individuals. These objectives it was felt would help in generating employment opportunities and in raising the standard of living of the masses.

### Salient Features of the Industrial Policy of 1956

1. **Division of the industrial sector:** The 1956 Resolution divided industries into the following three categories:

- (a) **Monopoly of the State:** In the first category those industries were included whose future development would be the exclusive responsibility of the State. Seventeen industries were included in this category and were listed in Schedule A. These industries were grouped into the following five classes;
  - (i) defense industries, (ii) heavy industries, (iii) minerals, (iv) transport and communications, and (v) power. Of these, four industries – arms and ammunition, atomic energy, railways and air transport, were to be government

monopolies. In the remaining 13 industries, all new units were to be established by the State.

**(b) Mixed sector of public and private enterprise:** In this section 12 industry listed in Schedule B were included. These were: all other minerals, road transport, sea transport, machine tools, ferro-alloys and tool steels, basic and intermediate products required by chemical fertilizers such as manufacture of drugs, dyestuffs and plastics, antibiotics and other essential drugs, fertilizers, synthetic rubber, chemical pulp, carbonization of coal and aluminium and other non-ferrous metals.

**(c) Industries left for private sector:** All industries not listed in schedules 'A' or 'B' were included in the third category. These industries were left open to the private sector. Their development was to depend on the initiative and enterprise of the private sector and the role of the State in this category was to provide facilities to the private sector to develop.

2. **Mutual dependence of public and private sectors:** The public and private sectors were not to be exclusive and totally independent of one another. The only four industries in which the private sector was not allowed to function were arms and ammunitions, atomic energy, railways and air transport. It emphasized at mutual coexistence and cooperation of private and public sectors.
3. **Assistance and control of private sector:** The government could assist expansion and development of private sector through participation in its risk capital and share capital and by providing other types of service, fiscal incentives etc.
4. **Importance of small-scale and cottage industries:** The 1956 Resolution also recognized the importance of small-scale and cottage industries. Such industries could create large scale employment opportunities, ensure a more equitable distribution of income and wealth, and help in effective mobilization of human and physical capital.
5. **Reduction of regional inequalities:** The 1956 Resolution called for reduction in regional imbalances and inequalities. It advocated that transport facilities, power and other facilities should be provided in the backward regions and stressed on balanced development of agriculture and industry.
6. **Technical and managerial personnel:** The 1956 Resolution advocated the establishment of proper technical and managerial cadres through the organization

of apprenticeship schemes of training on a large scale, establishment of technical institutions, organization of management courses in universities.

7. **Industrial peace:** A congenial atmosphere is of paramount importance for industrial progress to take place. The relation between mill owners and the workers should be cordial and amicable. Thus the 1956 Resolution reiterated that in a 'socialist society' the rights of the workers should be protected and they should be provided with adequate amenities and incentives for carrying out their work.

Thus, the second industrial resolution re-emphasized the importance of public sector and the necessity to regulate the growth of the private sector.

### **3.5 Public Sector in India**

Public sector in India includes all those activities which are funded out of the Budget of the government of India as well as budgets of State Governments and municipal bodies. In this sense, the public sector covers all government departments, government enterprises, railways, communications, irrigation projects, ordinance factories, banking and insurance companies, public financial institutions, government schools, colleges, hospitals, dispensaries, etc.

The Industrial Policy of the 1956 shaped the growth of public sector in India, which enjoined upon the government to play a strategic role in the country's development. When India became independent it inherited a number of problems which had to be solved in a planned and systematic manner. India had a weak industrial base, low savings and investment levels and poor and primitive infrastructural facilities. Majority of the people in India lived below the poverty line and were extremely poor and wide disparities existed in terms of income and wealth. The unemployment situation was acute along with glaring regional imbalances.

#### **3.5.1 Growth of public Sector in India**

One the eve of independence, there were hardly any public enterprises in India except for railway transport, ordinance factories, postal communications, etc. It was only under the

Industrial Policy Resolution of 1956 that the States were called upon to assume direct responsibility and play a dominant role in Industrial development. Consequently, the number of enterprises in the public sector which was 5 in 1951 with an investment of Rs. 29 crores increased to 245 public sector enterprises with an investment of Rs. 403, 706 as on March 31, 2006. Further, the number of public sector enterprises rose to 247 as on March 31, 2007 with an investment of Rs. 421089 crore. Thus, investment increased by Rs. 17383 crore during the year 2006-07. The turnover was Rs. 133906 crore in 1991-92 which rose to Rs. 837295 crore in 2006-07 and further to Rs. 964410 crore in 2006-07. Thus, the turnover of public sector enterprises increased by Rs. 127115 crore during 2006-07 an increase of 15.2 per cent, of the total Rs. 421089 crore investments in the public sector as on March 31, 2007, of which as much as 62.6 per cent were in the industrial sector comprising of electricity, manufacturing, mining and construction sectors.

The Central Public Sector Enterprises (CPSEs) play a significant role in Indian Economy. According to the Department of Public Enterprises, there are 339 CPSEs as on 31 March, 2018. Out of these 339 CPSEs, 257 are in operation and 82 are non-operational during 2017-18. Out of the operating 257 CPSEs, 184 CPSEs were profit making, 71 loss making and 2 CPSEs at no profit no loss. The profit of profit making CPSEs (184) stood at Rs 1,59,635 crore, while the loss of loss-making CPSEs (71) stood at Rs 31,261 crore during 2017-18. The overall net profit of the 257 operating CPSEs went up by 2.29 per cent to Rs 1,28374 crore during 2017-18. Further, the CPSEs contribution to the total Central Exchequer decreased by 2.98 per cent in 2017-18 as against the previous year. A comparative analysis of the performance of a few CPSEs vis-a-vis private sector using 5 year average net profit margin in selected sectors show that there is a great scope for improvement for CPSEs in some sectors as the private sector firm as have performed relatively better than the public sector forma.

### **3.5.2 Role of Public Sector in India**

In India's planned economic development, public sector was assigned a very important role. The major contributions expected from the public sector in India's economic development are discussed below:

- (i) **To ensure rapid economic development:** For an accelerated rate of economic growth to be a reality, the State was called upon to directly participate in industrial

development. The State could gather the necessary resources and make direct investment in various sectors of the economy and thus increase the pace of industrial and economic development.

- (ii) **To promote redistribution of income and wealth:** Since India had adopted the goal of establishing a ‘Socialist Pattern of Society’ as the motto of its development, it was therefore necessary that concentration of income, wealth and economic power in the hands of a few rich capitalists is controlled.
- (iii) **To develop industries which require huge investment:** There are some industries, the development of which is extremely essential for the growth of the economy. Such industries include power, transport, petroleum, irrigation, fertilizers, iron and steel, heavy machinery, etc. Hence all such activities which are essential for country’s development but are beyond the capacity of the private investors and are not sufficiently profitable and attractive to them must be developed by the State.
- (iv) **Balanced regional growth:** Expansion of public sector was necessary to industrialize the backward regions and achieve a balanced regional growth. It is only the public enterprises, which are governed more by social responsibility rather than private profitability that can help in developing these backward regions and thus achieve balanced regional growth.
- (v) **To prevent concentration of economic power:** If the entire field of industry is left wide open for the private sector, it is quite possible that the big industrial houses branch off their activities to diverse fields of activity and gain control over a large number of industries. Further, through the development of public enterprises in all the key sectors, the government would come to assume “the commanding heights” of the economy and would thus be in a position to dilute such tendencies of concentration of economic power in private hands and blunt their capacity to exploit the consumers or hold the economy to ransom.
- (vi) **To Generate Resources of development:** Growth of public sector was visualized as a vehicle for faster economic development. The public enterprises were expected to generate sufficient surpluses/profit that would be ploughed back to set up more public enterprises or used for the expansion of the existing enterprises.
- (vii) **To promote import substitution:** The public-sector industries were expected to produce goods of international standards so as to replace the imported goods. This



would naturally save a lot of precious foreign exchange that can be used for other development requirements.

- (viii) **To generate Employment:** The public sector was expected to generate substantial employment opportunities and thus help in minimizing the dimensions and problems of widespread unemployment.
- (ix) **To help in development of small-scale industries:** The public-sector was also expected to help the growth of small-scale industries by enabling them to upgrade their technology and inducing them to produce ancillary products required as inputs by these enterprises.

### 3.5.3 Economic reforms and Public Sector

In view of the many ills affecting the working of the public-sector enterprises, a number of reforms have been introduced to make it more efficient and competitive. The government strategy in the context of the public sector continues to be a judicious mix of policies that aim at strengthening the strategic industrial units, privatizing the non-strategic ones through gradual disinvestment and sale and devising viable rehabilitation package for the weak units.

### 3.5.4 Government's Policy towards Public Enterprises

The main elements of Government's policy towards public sector undertakings are:

- (i) To bring down Government's equity in all non-strategic public-sector undertakings to 26 per cent or lower, if necessary,
- (ii) To restructure and revive potentially viable public-sector undertakings,
- (iii) To close down public-sector undertakings which cannot be revived, and
- (iv) To fully protect the interest of workers.

The New Industrial Policy July 1991, apart from reducing the area exclusively reserved for the public sector from 17 to 4 industries, has also initiated the following reforms.

- (i) **Restructuring:** The new policy aims at restructuring of the public enterprises. This would involve modernization of plants, rationalization of productive capacity, changes in product mix.
- (ii) **Focus on infrastructure:** The New Industrial Policy seeks to focus the development of public sector on strategic, high-tech and essential infrastructure.
- (iii) **Openings for Private sector:** While some reservation for public sector will be retained, there would be no bar on area of exclusivity to be opened up to the private sector selectively.
- (iv) **Professional Management:** According to the New Industrial Policy, Boards of public sector companies would be made more professional and given greater powers. Changes will be made in management practices to promote efficiency, dynamic leadership, resourcefulness and innovation.
- (v) **Autonomy and Accountability:** To make the public enterprises efficient, competitive and dynamic, it is necessary to give them increased autonomy and at the same time subject them to accountability for their performance. The performance of the enterprises is reviewed after the specified time period to assess how far they have achieved their goals and targets.
- (vi) **Navratnas and Mini Ratnas:** In accordance with its policy of giving greater autonomy to public enterprises, the government has granted the status of Navratnas to certain selected public-sector units. These enterprises have been given full freedom to make capital expenditure, enter joint ventures, set up foreign subsidiaries and form technological and strategic alliances with foreign enterprises.
- (vii) **Disinvestment:** With a view to raising resources and encouraging wider participation, a part of government shareholding in public enterprises is being offered to financial institutions, general public and workers. The July 1991 Industrial policy stated that to begin with 20 per cent share of the public enterprises would be sold.
- (viii) **Growth in per capita income:** The growth rate of per capita income has been quite distressing upto the Fourth Plan; it was almost zero during the Third Plan and below one percent during the fourth Plan. However, Fifth Plan onwards it has shown continuous increase and reached a reasonably high level during the Eighth Plan but however, declined marginally in the Tenth Plan.

- (ix) **Structural changes in National Income:** Planned economic development has led to structural changes in National Income. While in 1950-51, agriculture's share in national income was over 55 per cent, it has come down to less than a quarter in 2001-02 and has further come down to 14.6 per cent in 2011-12. The share of secondary sector has gone up from 13 per cent in 1950-51 to around 25 per cent in 2001-02 and has remained almost stagnant at 24.2 per cent in 2011-12. The contribution of the tertiary sector has improved substantially from 30 per cent in 1950-51 to 50.9 per cent in 2000-01 to 61.2 per cent in 2011-12.

## **The Public Enterprises and the Disinvestment Debate**

### **Rationale of Disinvestment**

The term 'disinvestment' is used to indicate the process of privatization. Since the beginning of the 1980s, the functioning of the public sector began to be questioned. It was held that public sector performed well only when protected through State monopolies, entry reservations, high tariffs and quotas etc. Since quite a large number of Public enterprises incurred losses year after year, so it was argued why should the State use the tax payer's money to bail out these industries. So, the question of privatization of public sector was debated. Disinvestment is the process through which privatization could take place.

The collapse of the Soviet Union towards the end of the 1980s, followed by several East European countries eroded the faith in the public sectors. Chinese government also pleaded for market socialism. Since in the socialist economies, disinvestment of State owned enterprise was undertaken in a big scale, so the critics of Public sector argued for reducing the area of operations of the Public-sector units.

### **The Ministry of Disinvestment outlined the following objectives:**

1. Releasing the large amount of public resources locked up in non-strategic public sectors enterprises, for redeployment in areas that are much higher on the social priority, such as basic health, family welfare, primary education and social and economic infrastructure.

2. Stemming, further outflow of these scarce public resources for sustaining the unviable non-strategic public-sector enterprises.
3. Reducing the public debt that is threatening to assume unmanageable proportions.
4. Transferring the commercial risk to the private sector wherever the private sector is willing and able to step in; and
5. Releasing other tangible and intangible resources, such as large man power currently locked up in managing public sector enterprises and their time and energy for re-deployment in high priority social sectors that are short of such resources.

### **The emergence of the Disinvestment Policy**

Privatization is a process by which the government transfers the productive activity from the public sector to the private sector. The policy of disinvestment evolved over a period of time in India after the implementation of the economic liberalization process in 1991-92. The evolution of the privatization policy in has been outlined below.

1. **Interim budget and Budget Speech, 1991-92:** The government of India enunciated a policy to divest upto 20 per cent of its equity in selected public-sector undertakings to mutual funds and investment institutions in the public sector, as well as workers in these firms. The stated purpose of the policy was to place equity across a broad base, improve management, increase resources to the enterprises and to raise funds for the general exchequer.
2. **Report of Rangarajan Committee on Disinvestment of Shares, 1993:** The Rangarajan Committee emphasized the need for substantial disinvestment. It recommended that the percentage of equity divested could be upto 49 per cent for industries reserved for the public sector, and that in exceptional cases upto 74 per cent of the equity could be divested. In industries not reserved for the public sector, 100 per cent of the equity could be divested. Only the following 6 industries were reserved for the public sector: (i) coal, (ii) minerals and oils, (iii) armaments, (iv) atomic energy, (v) radioactive minerals, and (vi) railways.
3. **Divestment Commission Recommendations:** February 1997 to October 1999: The Government constituted a five-member Public Sector Disinvestment Commission under the Chairmanship of G.V. Ramakrishna in August 1996 for drawing a long-term disinvestment programme for the PSUs referred to the Commission.

4. **Budget Speech, 1998-99:** In the Budget Speech of 1998-99, the Finance Minister stated that the Government had decided that in the generality of cases, the government share-holding in public sector enterprises will be brought down to 26 per cent. In case of Strategic Public-sector enterprises, the government would continue to retain majority of the holding. The interests of workers shall be protected in all cases.
5. **Strategic and Non-strategic classification, 1999:** The government classified the Public-Sector Enterprises into Strategic and non-strategic areas for the purpose of Disinvestment. Strategic industries were limited to: (i) arms, ammunitions and related defense industries; (ii) atomic energy; (iii) mining of minerals for the atomic industry; and (iv) railway transport. All other industries were classified as non-strategic.
6. **Address by President to Joint Session of Parliament, February 2001:** In his address to the joint session of Parliament in February 2001, the President stated thus: “The government’s approach to PSUs has a threefold objective: revival of potentially viable enterprises; closing down of those PSUs that cannot be revived; and bringing down government equity in non-strategic PSUs to 26 per cent or lower. Interests of workers will be fully protected through attractive Voluntary Retirement Schemes and other measures”.
7. **National Common Minimum Programme, 2004:** The National Common Minimum Programme (NCMP) of the UPA coalition government was released on May 25, 2004. The NCMP confirmed the commitment of the UPA government to a strong and effective public sector and laid down the following guidelines as far as privatization of Central PSEs is concerned: (i) all Privatizations will be considered on a transparent and consultative case-by-case basis; (ii) generally profit-making companies will not be privatized; (iii) the government would retain exiting ‘navratna’ companies in the public sector while these companies can raise resources from the capital market.; (iv) while every effort will be made to modernize and restructure sick public sector companies and revive sick industry, chronically loss-making companies will either be sold-off, or closed, after all workers have got their legitimate dues and compensation; and (v) the government believes that Privatization should increase competition, not decrease it. Therefore, it will not support the emergence of any monopoly that only restricts competition.

Since the announcement of Industrial Policy 1991, the coalition forms of different Governments that came to power adopted the disinvestment policy with minor modifications

here and there. Even within the government there were criticism of the disinvestment policy as even the profit-making enterprises were being privatized. While the Congress government initiated the process of economic reforms with emphasis on privatization, the BJP-led NDA government carried forward the banner of privatization, taking advantage of the fact that the Congress party, being the architect of privatization, was not in a position to oppose it. The PSUs should be given more powers to make them accountable and profitable in due course of time. It would be prudent to relook into the disinvestment policy and search for other alternatives to further improve upon the performance of PSUs.

### 3.6 Questions

1. Critically discuss the evolution of Indian industries since independence.
2. Analyse the various industrial policies prior to economic reforms in India.
3. Discuss the relevance of PSUs (Public Sector Undertakings) in India. Also, appraise the performance of PSUs (Public Sector Undertakings) in India.

### 3.7 Key words

|                             |   |  |
|-----------------------------|---|--|
| <b>Public Sectors Units</b> | : | an industrial undertaking either by state or central government  |
| <b>Industry</b>             | : | any activity which adds value to an input                        |
| <b>Disinvestment</b>        | : | divesting of the shares of any undertaking by the previous owner |

### 3.8 Suggested Reading

Kapila, Uma (Ed.), *India's Economic Reforms*, Academic Foundation, New Delhi.

Dutt and Sundaram, (Latest edition) *Indian Economy*, S.Chand and Company, New Delhi.

Mishra, S.K. & V.K. Puri *Indian Economy*, Himalayan Publishing House, Mumbai (latest edition)

Kapila, Uma (ed) *Indian Economy Since Independence*, Academic Foundations, Delhi (latest edition)

## **UNIT-IV**

### **INFRASTRUCTURE**

#### **Structure**

- 4.0 Introduction
- 4.1 Objectives
- 4.2 Different Types of Infrastructure
- 4.3 Physical Infrastructure
  - 4.3.1 Power
  - 4.3.2 Transport
- 4.4 Financial Infrastructure
- 4.5 Social Infrastructure
- 4.6 Institutional Infrastructure: Market
- 4.7. Financing Infrastructure: Problems and Policies
- 4.8 Sources of Infrastructure Finance
- 4.9 Suggested Readings

#### **4.0 Introduction**

Infrastructure can be defined as the basic physical and organizational structures needed for the operation of a society or enterprise, or the services and facilities necessary for an economy to function. The term typically refers to the technical structures that support a society, such as roads, water supply, sewers, power grids, telecommunications, and so on. Viewed functionally, infrastructure facilitates the production of goods and services; for example, roads enable the transport of raw materials to a factory, and also for the distribution of finished products to markets. In some contexts, the term may also include basic social services such as schools and hospitals.

An economy's infrastructure is more conveniently divided in two parts, viz., social infrastructure and physical infrastructure. Social infrastructure, on the other hand, is directly concerned with the needs of such services that meet the basic needs of a society like health services, drinking water, sewerage, sanitation, electricity, education facilities, etc. Physical infrastructure, on the other hand, is directly concerned with the needs of such production sectors as agriculture, industry, trade, etc. In physical infrastructure, we include such services as power, irrigation, transport, telecommunications, etc.

## 4.1 Objectives

- To know the meaning and different types of infrastructure in India
- Problems of Infrastructure finance in India and the policies for Infrastructure finance

## 4.2 Different Types of Infrastructure

Infrastructure can be broadly classified into the following categories:

1. Physical Infrastructure - This may include roads, water, drainage, electricity.
2. Services Infrastructure - Transportation, health and education.
3. Social - Social sector services, especially primary health care, old age homes, community centres etc.,

In the developing nation due to limited resources the infrastructure is undeveloped or developing. Lack of basic public utilities like water, all weather (pucca) roads and electricity is a common problem in a developing country like India. It is even more so in case of health care facilities, schooling facilities and other services in the social sector. In times of disaster, even these limited infrastructural facilities are destroyed and are unable to cater to the needs of the people. The different types of infrastructure in India can be discussed under following heads:

## 4.3 Physical Infrastructure

### 4.3.1 Power

Power or electricity is the essential source of commercial energy. To attain high economic growth and development, development of power sector is very essential. Year after year with the gradual development of various sectors like industry and service, the demand for power is increasing. In order to meet this increasing power requirement a huge amount of investment is regularly being made on the development of power projects. Some study shows that India is world's sixth largest energy consumer, accounting for 3.4 % of global energy consumption, with Maharashtra as the leading electricity generator among Indian states. Due



to upward rise of the India's economy, the demand for energy has grown at an average of 3.6 % per annum over the past 30 years. The total demand for electricity in India is expected to cross 950000MW by 2030.

In India, there are broadly four sources of electricity power, they are-Thermal power, Hydro power, Nuclear power and power from Renewable resources. In terms of power generation, India is the sixth largest country in the world. About 65 % of the electricity consumed in India is generated by thermal power plants, 22% by hydroelectric power plants, 3 % by nuclear power plants and rest by 10% from renewable sources like- solar, biomass wind etc.

During independence era India had power generating capacity is very low and is confined to only few urban centers on the other hand villages and rural areas are in total darkness. The Generation and distribution of power was carried out primarily by private utility companies. But after independence, electricity was made subject to the concurrent jurisdiction of the state and central governments. In the mid 1970s, government recognized that relying solely on the SEBs for power development lead to power shortages and large inter-state imbalances, particularly in light of the uneven distribution of coal and hydroelectric resources throughout the country. Therefore, in order to supplement the efforts of the states, the central government increased its role in the generation and transmission of power. NTPC and National Hydro Power Corporation, Ltd. (NHPC) were created in 1975 by the central government to establish thermal and hydro generating plants and to install associated interregional transmission systems. In the same year, the Central Electricity Authority (CEA) was established in its present form to develop a uniform national power policy. Additional power generating companies were established later.

The figure in the table 4.1 shows the total installed capacity of power in India as on 30.06.2019. In India six regions produces power with the help of different sources. These are namely Northern, Southern, Western, Eastern, Northeastern and Island region and also on the basis of ownership are State, Central and Private Sector. The table shows the combined installed capacity of all the region of India. Of these power generated through nuclear energy is totally under the sphere of central government and rests of the sources of energy are divided among the Central, State and Private sectors. The figures shows that around 63 percent of total power are comes from thermal energy, of which 76 percent are produced by

the central sector, 69 percent by state sector and 52 percent are by the private sector. Around 2 percent of total energy is produced with the help of nuclear power plant. 12 percent by the hydro power and around 22 percent of power are generated with the help Solar, Small Hydro Power, Wind Power and other renewable sources.

**Table 4.1**  
**All India Total Installed capacity (in MW) as on 30.06.2019**

| Sources              |                | Sectors / Ownership |                 |                |                 | Sectors / Ownership<br>(As Percentage of Total) |              |              |              |
|----------------------|----------------|---------------------|-----------------|----------------|-----------------|---|--------------|--------------|--------------|
|                      |                | State               | Private         | Central        | Total           | State   | Private      | Central      | Total        |
| <b>Thermal</b>       | <b>Coal</b>    | 64076.5             | 74733.0         | 55680.0        | 194489.5        | 61.0  | 45.0         | 64.3         | 54.3         |
|                      | <b>Lignite</b> | 1290.0              | 1830.0          | 3140.0         | 6260.0          | 1.2   | 1.1          | 3.6          | 1.7          |
|                      | <b>Gas</b>     | 7118.7              | 10580.6         | 7237.9         | 24937.2         | 6.8   | 6.4          | 8.4          | 7.0          |
|                      | <b>Diesel</b>  | 363.9               | 273.7           | 0.0            | 637.6           | 0.3   | 0.2          | 0.0          | 0.2          |
| <b>Thermal Total</b> |                | <b>72849.1</b>      | <b>87417.3</b>  | <b>66057.9</b> | <b>226324</b>   | <b>69.3</b>                                     | <b>52.6</b>  | <b>76.3</b>  | <b>63.2</b>  |
| <b>Nuclear</b>       |                | 0.0                 | 0.0             | 6780.0         | 6780.0          | 0.0   | 0.0          | 7.8          | 1.9          |
| <b>Hydro</b>         |                | 29878.8             | 3394.0          | 12126.4        | 45399.2         | 28.4  | 2.0          | 14.0         | 12.7         |
| <b>RES* (MNRE)</b>   |                | 2348.9              | 75390.7         | 1632.3         | 79371.9         | 2.2   | 45.4         | 1.9          | 22.2         |
| <b>Grand Total</b>   |                | <b>105076.9</b>     | <b>166202.0</b> | <b>86596.6</b> | <b>357875.5</b> | <b>100.0</b>                                    | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> |

Note: \* RES include SHP, BP, U&I, Solar and Wind Energy. Installed capacity in respect of RES (MNRE) as on 31.05.2019

Source: [http://cea.nic.in/reports/monthly/installedcapacity/2019/installed\\_capacity-06.pdf](http://cea.nic.in/reports/monthly/installedcapacity/2019/installed_capacity-06.pdf)

### 4.3.2 Transport

The transport infrastructure is one of the essential parts of the growth and development of a country. The Transport system is considered as the artery and nerves covering the entire economy of the country. A well-developed transport system not only helps in the movement of men and materials from one place to another rather it acts as an engine for the growth as well as the development of the region and also provides linkages between one region to another. The country like India where there is diversity, transport infrastructure play crucial role to maintain unity in it. In India we have found four types of transport system i.e., Railways, Roadways, Waterways and Airways. For the sustained economic growth of a country, a well connected and efficient transport system is needed. India has a good network of rail, road, waterways and airways. The four types of infrastructure can be discussed as follows:

### a) Railways

Among all the transport systems of the country, Railways occupy the most important position as it carries nearly 80 percent of total goods traffic and 70 percent of the passenger traffic. Indian Railways had started its operation in April 16, 1853 with its first Railways route of 22 miles (34 kms) from the then Bombay (now Mumbai) to Thane. Over the period of time, the Indian Railways System has grown into such a big organisation that it has become Asia's largest and world's second largest organisation in terms of its route length. The total route length of Indian Railways which was 53,600 km in 1950-51, gradually rose to 68442 km in 2017-18. Out of the total route length, Broad gauge covers 63491 km, Meter gauge covers 3200 km and narrow gauge covers 1751 kms. For the better management of Indian Railways, in 1952, the rail networks were divided on the basis of different zones. A total of six zones came into being in 1952. Again on 6 September 2003 six further zones were made from existing zones for administration purpose and one more zone added in 2006. The Indian Railways now has 16 railways zones. These are explained in the table below with its zone and the zonal headquarter.

**Table 4.2**  
**Railway Zones and its Zonal Headquarter**

| No. | Name of the Railway Zone   | Zonal Headquarter       |
|-----|----------------------------|-------------------------|
| 1   | Central Railway            | Mumbai                  |
| 2   | Eastern Railway            | Kolkata                 |
| 3   | East Central Railway       | Hajipur                 |
| 4   | East Coast Railway         | Bhubaneswar             |
| 5   | Northern Railway           | Baroda House, New Delhi |
| 6   | North Central Railway      | Allahabad               |
| 7   | North Eastern Railway      | Gorakhpur               |
| 8   | North Frontier Railway     | Maligaon, Guwahati      |
| 9   | North Western Railway      | Jaipur                  |
| 10  | Southern Railway           | Chennai                 |
| 11  | South Central Railway      | Secunderabad            |
| 12  | South Eastern Railway      | Garden Reach, Kolkata   |
| 13  | South East Central Railway | Bilaspur                |
| 14  | South Western Railway      | Hubli                   |
| 15  | Western Railway            | Churchgate              |
| 16  | West Central Railway       | Jabalpur                |

Source: [www.indianrailways.gov.in](http://www.indianrailways.gov.in)

The table 4.2 shows an overview of Indian railways in recent year. The figures shows that total track is more than 1 lakh 23 thousand in km and total route is around 68 thousand.

**Table 4.3**  
**Overview of India Railways**

| Sl.No | Description   | Units                | 2017-18             |
|-------|---|----------------------|---------------------|
| 1     | Track Kilometers (BG, MG, NG)                       | Kms                  | 123236              |
| 2     | Route Kilometers (BG, MG, NG)                       | Kms                  | 68442               |
| 3     | Electrified Route Kms                               | Kms                  | 29376               |
| 4     | Locomotives<br>a) Diesel<br>b) Electric<br>c) Steam | Nos.<br>Nos.<br>Nos. | 60806<br>5639<br>39 |
| 5     | Wagons  | Units                | 279308              |
| 6     | Coaches   | Units                | 71825               |
| 7     | Stations  | Nos.                 | 7318                |
| 8     | Staffs  | Nos. (in thousands)  | 1271                |
| 9     | Passengers Carried                                  | Million              | 8286                |
| 10    | Freight Traffic                                     | Million Tonnes       | 1159.55             |
| 11    | Revenue   | Rs. in crores        | 178725.31           |
| 12    | Expanses  | Rs. in crores        | 175834.22           |
| 13    | Staff Cost (Regular Employees)                      | Rs. in crores        | 1,29,336.48         |
| 15    | Operating Ratio                                     | In percentage        | 98.44               |

Source: India Railways Year Book 2017-18, GOI Ministry of Railways

The India railways, gave a strong push to the social forces for urbanization and speedy and cheap movement of materials by railways, particularly, over long distances and in the absence of a dependable road network. The Indian Railways is thus one of the key institutions that have helped to keep the country together. It is, therefore, essential for the Railways, not only to provide competitive transport services, but also to meet the social and strategic needs of the country.

The major functions of the Railways are transportation of passengers and freight. They are also engaged in the provision of a number of allied services and running the production units to meet some of the inputs like coaches, locos & wheels. The Railways have segmented their market into two portions. These are called the Passenger Transportation segment and

Freight Transportation segment. In the Passenger segment, the Railways have positioned themselves as carriers of suburban traffic at low cost and as transporters of passengers over long leads. In the Freight segment, the Railways have positioned themselves as carriers of large quantities of bulk commodities. The main function of India railways are as follows:

- i) **Passenger Transportation:** Indian Railways operate, around 12000 passenger trains and transport 23 million passengers daily connecting more than 7000 station. The passenger services can be segmented into two parts. The second-class and unreserved travel forms the value segment while all other classes form the premium segment. The passengers on the Railways come, mainly, from four different categories namely: Rural passengers, urban commuters, Inter-city business travellers and long distance passengers.
- ii) **Freight Transportation:** Freight transportation forms a major part of the Railways' business and accounts for about 68 percent of its revenue. The Railways meet, approximately, 40 percent of the nation's transportation needs.. The freight business of the Railways can be classified into two categories. These are bulk commodities and other cargo. The bulk commodities consist of coal, iron and steel, cement, fertilizers, food grains, petroleum products and other commodities like iron ore, limestone etc.,. The share of the bulk commodities in the Railways' business has been increasing in the recent times. Coal, alone, accounts for almost half of the bulk traffic carried. The share of the bulk commodities in the Railways has increased in the recent years as the Railways have concentrated on trainloads rather than wagonloads. A sizable share of the bulk commodities is shipped by the public sector undertakings. The freight customer are, an industry or an enterprise who wants a reliable and cost effective transport of the goods from their originating points to the destinations. In the recent past, due to the liberalization of the economy, the freight customers have become much more demanding in terms of cost as well as quality of service. This has necessitated a fresh look by the Indian Railways at the service being provided by them.

## **b) Road Ways**

The Indian road network, comprising of National Highways, Expressways, State Highways, Major District Roads, Other District Roads and Village Roads, is globally the 2<sup>nd</sup> largest spanning 5.5 million kilometres. India's road infrastructure has seen consistent improvement in the last few years. Connectivity has improved and road transportation has

become a focus of rapid development. Roads are providing better access to services, ease of transportation and freedom of movement to people. By recognizing the significance of a reliable and swift road network in the country and the role it plays in influencing its economic development, the Ministry of Road Transport and Highways (MORTH) has taken up the responsibility of building quality roads and highways across the country.

**Table 4.4**  
**Road Network in India by Categories (in Kms)**

| Year    | National Highways | State Highways | District Roads | Rural Roads     | Urban Roads   | Project Roads  | Total     |
|---------|-------------------|----------------|----------------|-----------------|---------------|----------------|-----------|
| 1950-51 | 19811 (4.95)      | -              | 173723 (43.44) | 206408 (51.61)  | 0             | 0              | 399,942   |
| 1960-61 | 23798 (4.54)      | -              | 257125 (49.02) | 197194 (37.60)  | 46361 (8.84)  | 0              | 524,478   |
| 1970-71 | 23838 (2.61)      | 56765 (6.20)   | 276833 (30.26) | 354530 (38.75)  | 72120 (7.88)  | 130893 (14.31) | 914,979   |
| 1980-81 | 31671 (2.13)      | 94359 (6.35)   | 421895 (28.40) | 628865 (42.34)  | 123120 (8.29) | 185511 (12.49) | 1,485,421 |
| 1990-91 | 33650 (1.45)      | 127311 (5.47)  | 509435 (21.89) | 1260430 (54.16) | 186799 (8.03) | 209737 (9.01)  | 2,327,362 |
| 2000-01 | 57737 (1.71)      | 132100 (3.92)  | 736001 (21.82) | 1972016 (58.46) | 252001 (7.47) | 223665 (6.63)  | 3,373,520 |
| 2010-11 | 70934 (1.52)      | 163898 (3.50)  | 998895 (21.36) | 2749804 (58.80) | 411679 (8.80) | 281628 (6.02)  | 4,676,838 |
| 2015-16 | 101011 (1.80)     | 176166 (3.14)  | 561940 (10.03) | 3935337 (70.23) | 509730 (9.10) | 319109 (5.70)  | 5,603,293 |
| 2016-17 | 114158 (1.94)     | 175036 (2.97)  | 586181 (9.94)  | 4166916 (70.65) | 526483 (8.93) | 328897 (5.58)  | 5,897,671 |

Note: figures in the parenthesis indicates the percentage of total.

Source: Basic Road Statistics of India 2016-17, Ministry of Road Transport and Highways, GOI

Road transport is the second important mode of transport in India. It covers every corner of the country which the railway transport even could not cover. In India, total length of roads has increased from 3, 99,942 kms in 1950-51 to 59, 03,293 kms in 2018-19, the second largest road network in the world. India has approximately 4.63km of roads per 1000 people. The road network comprises 1,01,011 kms of National Highways, 1,76,166 kms of State highways, 5,61,940 kms of District roads, 39,35,337 kms of Rural roads, 5,09,730 kms of Urban roads and 3,19,109 kms of projected roads (till 2015-16). Road transportation is vital to india's economy. It enables the country's transportation sector to contribute 4.7 % towards India's GDP, in comparison to railways that contributed 1% in 2009-10. Road transport has gained its importance over the years despite significant barriers and

inefficiencies in inter-state freight and passenger movement compared to railways and air. India's road network carries over 65 % of its freight and about 85 % of passenger traffic.

The figure in the tables shows the growth of road network since from the time of independence. It shows that out of total road length rural roads has high in percentage term, which implies that government stress much on rural connectivity through road network. In the year 2016-17 rural roads constitute around 70 percent followed by district road (around 10 percent), urban road (around 9 percent), and project roads (6 percent). The figure of preceding years also follows the same trend of road network in India.

In the recent years government of India undertake major initiative in order to develop road development. The following are main initiatives are as follows:

#### 1. National Highway Development Projects (NHDP)

The seven phased NHDP is being implemented by the National Highways Authority of India (NHAI) with a total estimated expenditure of USD 92 billion. It is one of the largest highway development project in the country since 2000, more than 49,260 km of the roads are being upgraded to match international standards. The main key project under NHDP are:

- a) Golden Quadrilateral connecting 4 major metropolitan cities viz. Delhi-Mumbai-Chennai-Kolkata. North South & East West Corridors (NS-EW) connecting Srinagar to Kanyakumari and Silchar to Porbandar with a spur from Salem to Cochin.
- b) Road connectivity of major ports of the country to National Highways
- c) Four-laning of 4,000 km of National Highways up gradation of about 20,000 km of National Highways to 2-lane paved shoulder
- d) Six laning of 6,500 km of existing 4 lane National Highways
- e) Development of 1,000 km of fully access controlled expressways under Public Private Partnership (PPP) model following Design – Build – Finance – Operate (DBFO) approach. Nine such expressways have been identified along High-Density Corridors. These corridors will seek to ensure quicker connectivity.

#### 2. Development of Roads in Challenging Terrain

MORTH's role is crucial in states with hilly terrains as many of these places have cultural, religious and economic relevance. Further, the roads in hilly areas are strategically significant due to its proximity to international borders and defence

establishments. The Ministry conducted a detailed review of the road network in Uttarakhand, Himachal Pradesh and Uttar Pradesh with an aim to improve road connectivity to coastal/border areas, backward areas, religious places, tourist places, construction / rehabilitation / widening of about 1500 major bridges, 208 Railway over Bridges (ROBs) and Railway under Bridges (RUBs) and improvement of newly declared NHs and providing them connectivity to District Head Quarters. The Bharatmala Pariyojana envisages a “Connectivity Improvement Programme” for Char-Dham (Kedarnath, Badrinath, Yamunothri & Gangotri in Uttarakhand).

### 3. **Special Accelerated Road Development Programme for North-East (SARDP-NE)**

Improving road and transport infrastructure in the North-East India is a priority for the Government of India. MORTH plans to upgrade 10,141 km of roads in the region through three phased SARDP-NE, which aims to improve road connectivity in all district headquarters in the North Eastern region. ‘Phase A’ of the project includes upgradation of 4,099 km of road at an estimated cost of USD 3.3 billion. It is expected to be completed by March 2021. Another 3,723 km of road stretch has been approved at an estimated budget of USD 9.8 million under the Phase B<sup>13</sup>. The third phase is the “Arunachal Pradesh Package of Roads and Highways” under which road construction of 2319 km road has been approved.

Taking ahead the Prime Minister’s vision to develop North-East India as a gateway to South-East Asia, the government is implementing the Kaladan Multi Modal Transit Transport Project to connect Kolkata and Sittwe Port in Myanmar at an estimated cost of USD 82 million. The project involves constructing more than 200 km long road which passes through the Indo-Myanmar border.

### **c) Water Transport**

Water transport is the oldest mode of transport and also one of the cheapest in today’s world. The cost of operation of water transport is very less. At present water transport in India may be divided into two groups:

- a. Inland water transport or River transport
- b. Coastal or Marine transport



Inland water transport is the cheapest among all modes of transport. It is considered as very useful mode for carrying bulky and heavy commodities of low grade like coal, rae ores, timber etc. from the point of view of energy consumption Inland Water Transport is now considered as one of the most efficient modes of transport. Moreover, Inland Water Transport is a labour intensive mode of transport. The total navigable length is 14,500 km out of which about 5200 km of the river and 4000 km of canals can be used by mechanised crafts. The important navigable rivers in India are the Ganga and Brahmaputra and their tributaries, the Krishna and Godavari and their Canals, the West-coast and Mahanadi Canals in Orissa, the Narmada and Tapi, the backwaters and Canals of Kerela, the Buckingham Canal in Tamil Nadu and Andhra Pradesh. On the other hand, the importance of coastal or marine transport in India is very high. India has total coastline of 4200 miles and huge volume of international trade. Twelve major and 185 minor ports provide infrastructural support to these routes. Approximately 95% of India's foreign trade by volume and 70% by value moves through ocean routes. Apart from international trade, these are also used for the purpose of transportation between the island and the rest of the country.

#### **d) Air Transport**

Air transport is the quickest mode of transport for movement of passenger and cargo traffic, is broadly structured into three distinct functional entities, Viz., regulatory, cum-development, operational and infrastructure. In India, civil aviation started in 1920 with the construction of some aerodromes by the Government. In 1927 civil aviation department was set up. Airport Authority of India (AAI) is a leader PSU under the Ministry of Civil Aviation engaged in development, building airport infrastructure and managing airport across the length and breadth of the country including remote and far flung areas. AAI came into existence in 1995 with the merger of two authorities viz., National Airport Authorities and International Airport Authority of India. The AAI is a major airport operator managing 126 airport including 21 international airports, 8 customs airports, 78 domestic airports and 19 civil enclaves at military airfields (AAI annual report,2016-17).

#### **4.4 Financial Infrastructure**

Financial Infrastructure is an umbrella term involving many institutions, instruments, markets and variety of services (finance and finance related) provided through them. The major component of financial infrastructure of the country is the financial institutions. Financial institutions are two types- banking institutions and non-banking institutions. The banking institutions cover the central, commercial and co-operative banks. These institutions

affect the economy by changing the supply of money. On the other hand non-banking institutions included insurance companies, pension funds, mutual funds and other term lending institutions. This type institution affects the economy by changing the demand for money.

An efficient financial system can influence the long-term growth through three important channels, namely: 1) increase in the proportion of saving transferred to investment spending, 2) augmenting private saving rate, and 3) improvement in the social marginal productivity. The financial intermediaries stimulate economic growth in two ways: (i) by channeling the individual saving into productive areas of development and (ii) by allowing the individuals to reduce risk associated with their liquidity needs.

The creation of specialised financial institutions assumes significance in this regard because supply of credit to the poor involves high risk and carries exorbitant interest rates. The task of the special financial institutions would be to identify impediments to enhancing the productivity of existing assets and to find ways and means to overcome these and simultaneously to promote viable economic activities for the rural poor.

#### **4.5 Social Infrastructure**

Social Infrastructure comprises of health, education, drinking water supply, sanitary conditions and social and personal services. Here, we will discuss briefly, some of these sectors.

##### **Health**

In India there has been manifold increase in the health facilities. There has been a development in all types of pathology: Allopathy, Ayurveda, Homeopathy and Unnani. All these various methods of treatment of human illness have developed over the period. According to the latest data, estimated birth rate, death rate and natural growth rate are showing a decline trend. Estimated birth rate declined from 25.8 in 2000 to 20.4 in 2016 while the death rate declined from 8.5 to 6.4 per 1000 population over the same period. The natural growth rate declined from 17.3 in 2000 to 14 in 2016 as per the latest available information.

The SRS (2016) shows that the total fertility rate in 12 States has fallen below two children per women and 9 States have reached 2.1 and above. The Maternal Mortality Ratio (MMR) has shown a decrease of 11 points during 2010-12 to 2011-13. According to the latest data available MMR is highest in Assam i.e., 300 per 1 lakh live births and lowest in Kerela i.e., 61 per 1 Lakh live births in 2011-13. Infant Mortality Rate (IMR) has declined considerably i.e., 37 per 1000 live births in 2015; however, there is a huge gap between IMR of rural (41 per 1000 live births) and urban (25 per 1000 live births). The improvement in health indicators such as life expectancy, IMR, MMR due to increasing penetration of health care services across the country, increase the numbers of hospitals in India, growing literacy among the peoples and implementation of various government health service plans or policies like- Janani Surakhsha Yojana, provide free medicines and Ambulance, insurance facilities on major diseases provided by the Government such as AYUSHMAN.

## **Education**

Education is another important social infrastructure. In the education sector, the most important physical infrastructure is educational institutions. When we look at the figures of expansion in schools, we find that number of schools (these are primary, upper primary, secondary and senior secondary schools) have increased from 2.31 lakh in 1951 to 15.22 lakh in 2015-16. On the other hand, total number of institutions for higher education in India was 51793. Out of which, 799 are Universities (Both Central & State and Deemed University), 39071 were colleges and 11923 were stand alone institutions (like-PGDM and Diploma degree institutions). As per All India Survey on Higher Education (AISHE) 2017-18, the Gross Enrolment Ratio in higher education has increased from 24.5 percent in 2015-16 to 25.8 percent in 2017-18.

The literacy rate has gone up from only 18.33 per cent in 1951 to 74.04 per cent in 2011, yet it is also true that this rate of growth is extremely slow and India could not achieve full literacy even after more than 65 years of independence. This also means that India has the dubious distinction of having the largest number of illiterates in the world. This becomes clear when we find that India's Adult and Youth literacy rates are 72.1 and 86.1 percent respectively, while these rates for Sri Lanka are as high as 92.6 and 98.8 percent respectively.

## 4.6 Institutional Infrastructure: Market

In Indian context market can be divided into two:

- i) Money Market
- ii) Capital Market

The Money market and Capital market can be discussed in detail

### 1. Money market:

The Money Market is a market for lending and borrowing of short-term funds. It deals in funds and financial instruments having a maturity period of one day to one year. It covers money and financial assets that are close substitutes for money. The instruments in the money market are of short term nature and highly liquid. The Indian money market consists of two segments, namely organized sector and unorganized sector. The RBI is the most important constituents of Indian money market. The organized sector is within the direct purview of RBI regulation. The unorganized sector comprises of indigenous bankers, money lenders and unregulated non-banking financial institutions.

The main components of organized money can be discussed as under:

- a) Call and Notice Money Market: Under call money market, funds are transacted on overnight basis. Under notice money market funds are transacted for the period between 2 days and 14 days. The funds lent in the notice money market do not have a specified repayment date when the deal is made. The lender issues a notice to the borrower 2-3 days before the funds are to be paid. On receipt of this notice, the borrower will have to repay the funds within the given time. Generally, banks rely on the call money market where they raise funds for a single day. The main participants in the call money market are commercial banks (excluding RRBs), co-operative banks and primary dealers. Discount and Finance House of India (DFHI), Non-banking financial institutions such as LIC, GIC, UTI, NABARD etc. are allowed to participate in the call money market as lenders.
- b) Treasury Bills (T-Bills): Treasury bills are short-term securities issued by RBI on behalf of Government of India. They are the main instruments of short term borrowing by the Government. They are useful in managing short-term liquidity. At present, the Government of India issues three types of treasury bills through auctions,

namely – 91 days, 182-day and 364-day treasury bills. There are no treasury bills issued by state governments. With the introduction of the auction system, interest rates on all types of TBs are being determined by the market forces.

- c) **Commercial Bills:** Commercial bill is a short-term, negotiable, and self-liquidating instrument with low risk. They are negotiable instruments drawn by a seller on the buyer for the value of goods delivered by him. Such bills are called trade bills. When trade bills are accepted by commercial banks, they are called commercial bills. If the seller gives some time for payment, the bill is payable at future date (i.e. usance bill). Generally the maturity period is upto 90 days. During the usance period, if the seller is in need of funds, he may approach his bank for discounting the bill. Commercial banks can provide credit to customers by discounting commercial bills. The banks can rediscount the commercial bills any number of times during the usance period of bill and get money.
- d) **Certificates of Deposits (CDs):** CDs are unsecured, negotiable promissory notes issued at a discount to the face value. They are issued by commercial banks and development financial institutions. CDs are marketable receipts of funds deposited in a bank for a fixed period at a specified rate of interest. CDs were introduced in India in June 1989. The main purpose of the scheme was to enable commercial banks to raise funds from the market through CDs. According to the original scheme, CDs were issued in multiples of Rs.25 lakh subject to minimum size of an issue being Rs.1 crore. They had the maturity period of 3 months to one year. They are freely transferable but only after the lock in period of 45 days after the date of issue.
- e) **Commercial Paper (CP)** is an unsecured money market instrument issued in the form of a promissory note with fixed maturity. They indicate the short-term obligation of an issuer. They are quite safe and highly liquid. They are generally issued by the leading, nationally reputed, highly rated and credit worthy large manufacturing and finance companies in the public as well as private sector.
- f) **Repos:** A repo or reverse repo is a transaction in which two parties agree to sell and repurchase the same security. Under repo, the seller gets immediate funds by selling specified securities with an agreement to repurchase the same at a mutually decided future date and price. Similarly, the buyer purchases the securities with an agreement to resell the same to the seller at an agreed date and price. The repos in government securities were first introduced in India since December 1992. Since November 1996,

RBI has introduced “Reverse Repos”, i.e. to sell government securities through auction.

- g) Discount and Finance House of India (DFHI): It was set up by RBI in April 1988 with the objective of deepening and activating money market. It is jointly owned by RBI, public sector banks and all India financial institutions which have contributed to its paid up capital. The DFHI deals in treasury bills, commercial bills, CDs, CPs, short-term deposits, call money market and government securities. The presence of DFHI as an intermediary in the money market has helped the corporate entities, banks, and financial institutions to invest their short-term surpluses in money market instruments.

The unorganized money market can be discussed as under:

- a) Indigenous Bankers: They are financial intermediaries which operate as banks, receive deposits and give loans and deals in hundies. The hundi is a short term credit instrument. It is the indigenous bill of exchange. The rate of interest differs from one market to another and from one bank to another. They do not depend on deposits entirely, they may use their own funds.
- b) Money Lenders: They are those whose primary business is money lending. Money lenders predominate in villages. However, they are also found in urban areas. Interest rates are generally high. Large amount of loans are given for unproductive purposes. The borrowers are generally agricultural labourers, marginal and small farmers, artisans, factory workers, small traders, etc.
- c) Unregulated non-bank Financial Intermediaries: These consist of Chit Funds, Nidhis, Loan companies and others.

## **2. Capital Market**

Capital market is the market for medium and long term funds. It refers to all the facilities and the institutional arrangements for borrowing and lending term funds (medium-term and long-term funds). The demand for long-term funds comes mainly from industry, trade, agriculture and government. The central and state governments invest not only on economic overheads such as transport, irrigation, and power supply but also a basic and consumer goods industries and hence require large sums from capital market. The supply of funds comes largely from individual savers, corporate savings, banks, insurance companies,

specialized financial institutions and government. Capital market has a crucial significance to capital formation. Adequate capital formation is indispensable for a speedy economic development. The main function of capital market is the collection of savings and their distribution for industrial development. This stimulates capital formation and hence, accelerates the process of economic development.

The Indian Capital market is divided into two categories:

- 1) Securities Market 2) The Financial Institution

The securities market consists of the gilt-edge market and the industrial securities market. On the other hand development financial institution includes such as IFCI, SFC, LIC, IDBI, UTI, ICICI, etc. They provide medium-term and long-term funds for business enterprises and public authorities. Apart from the above, there are financial intermediaries in the capital market such as merchant bankers, mutual funds, leasing companies, venture capital companies etc. They help in mobilizing savings and supplying funds to investors.

#### **4.7. Financing Infrastructure: Problems and Policies**

The government has been the sole financier of infrastructure projects along with being responsible for implementation, operations and maintenance. There is a paradigm shift in recognising that this method may not be the best way to execute/finance such mega projects. The government has made several attempts to create an environment for sustainable and scalable involvement of the private players in infrastructure development within the country. Typically, infrastructure finance would be for the infrastructure projects depending on manufacturing projects, expansion and modernization projects carried out by infrastructure undertakings in India. Infrastructure finance is highly capital intensive and entails longer maturity with higher risk and prolonged real rate of returns.

Given the issues surrounding supply of risk-free capital and supply of funds, the manner in which these scarce resources can be procured is a very important question. With this constraint, no single entity has sufficient capital to meet large requirements of infrastructure finance in the country by venturing into risk for large number of investors. In order to meet the requirements, development of markets/mechanism for long-term finance becomes imperative and urgent.

Infrastructure deficit is one of the leading development challenges at present for India. Infrastructure plays a crucial role in economic development of a country. In India, too like many other countries, Infrastructure development is a critical aspect of our growth strategy and therefore, the sector gets the importance from all stakeholders commensurate with that role. Traditionally, the government through the budgetary expenditure was making infrastructure investment. But the present requirement is very huge for the government and over the last few years, several measures were made by the government to mobilize finance. In order to make finance in the infrastructure projects, the government and the private aims to make borrowing from the banking system, capital market, ECBs (External Commercial Borrowings) etc. India's financial system is dominated by banks and also the Non Bank Financial Company's (NBFCs) too play an important part in infrastructure financing. There are NBFCs that specialize in financing infrastructure and certain sector specific NBFCs in the Government Sector. Of course, banks are the predominant providers of finance to the infrastructure sector. The flow of bank finance to infrastructure sector has clocked high growth rates. A few economic characteristics differentiate infrastructure assets from other asset classes. These characteristics also make it more difficult to match investment demand and financing supply:

**Firstly**, infrastructure projects are often complex and involve a large number of parties. Infrastructure often comprises natural monopolies such as highways or water supply, and hence governments want to retain the ultimate control to prevent an abuse of monopoly power. This requires complex legal arrangements to ensure proper distribution of payoffs and risk-sharing to align the incentives of all parties involved.

**Secondly**, infrastructure projects are long term and are therefore subject to various risks including those due to changes in policies, delays in clearances, etc. Every event that delays the implementation of a project leads to cost and time overruns that in turn have a bearing on the techno-economic viability of the project or would necessitate revision in the price of the end-product. Very often the infrastructure products are meant to serve public good which imposes a limitation on ability to determine their price.

**Thirdly**, where debt financing is dominated by the banking system, the fundamental problem posed by the asset-liability mismatch is critical. In India, the dominance of PSBs may partly



offset this risk because the perceived assurance of government backing provides the requisite flow of deposits.

#### **4.8 Sources of Infrastructure Finance**

The important sources of infrastructure finance in India as shown below:

##### **A. Domestic Sources:**

##### **i) Equity Funds:**

1. Domestic investors (independently or in collaboration with international investors)
2. Public utilities
3. Dedicated Government Funds
4. Other institutional investors.

##### **ii) Debt Funds:**

1. Domestic commercial banks (3-5 year tenure)
2. Domestic term lending institutions (7-10 year tenure)
3. Domestic bond markets (7-10 year tenure)
4. Specialized infrastructure financing institutions such as infrastructure debt funds

##### **B. External Sources:**

##### **i) Equity Funds:**

1. Foreign investors (independently or in collaboration with domestic investors)
2. Equipment suppliers (in collaboration with domestic or international developers)
3. Dedicated infrastructure funds
4. Other international equity investors
5. Multilateral agencies

##### **ii) Debt Funds:**

1. International commercial banks (7-10 year tenure)
2. Export credit agencies (7-10 year tenure)
3. International bond markets (10-30 year tenure)
4. Multilateral agencies (over 20 year tenure)

##### **C. Infrastructure Bonds:**

Some bonds have a special provision that allows the investor to save on tax. These are termed as tax-saving bonds, and are widely used by individual investors as a tax-saving tool. Infrastructure bonds are available through issues of ICICI and IDBI, brought out in the name of ICICI Safety Bonds and IDBI Flexi Bonds. These provide

tax-saving benefits under Section 80C of the Income-tax Act, 1961, for the investor. Deep Discount Bonds are suitable for an increase in investment.

These bonds, which are sold at a discount on their face value, are redeemed at their face value on maturity of the instrument, the difference being gain. Infrastructure bonds do not offer any protection against high inflation since the rate of interest they offer is predetermined, and is not indexed for inflation. One can borrow against infrastructure bonds by pledging them with a bank. The amount depends on the market value of the bond and the credit quality of the instrument.

Although Infrastructure Bonds are considered to be pretty safe, ICICI and IDBI bonds are unsecured instruments. The value of the bond is subject to market forces, if it is to be sold before maturity. One should check the credit rating of such instruments before taking an investment decision. Since both ICICI and IDBI are considered to be financially healthy institutions, income from bonds issued by these institutions is regular. If the bonds have a Call option, it implies that the issuer has the right to prematurely redeem the bonds if it so desires. Inflation and interest rate movements are the two significant economic factors that play a vital role in the investment decisions of Infrastructure Bonds.

The Government and the RBI have made the following efforts to attract investment into the sector:

1. Setting up of India Infrastructure Finance Company Limited (IIFCL).
2. The National Investment and Infrastructure Fund (NIIF) has been approved to extend equity support to infrastructure Non-Bank Financial Companies (NBFC). Issue of tax-free infrastructure bonds has been allowed for rail, roads and irrigation programmes.
3. Issue of rupee denominated bonds in overseas markets.
4. Infrastructure bonds to be issued by IFCI (Industrial Financial Corporation Limited), LIC, and IDFC (Infrastructure Development Finance Corporation) with tax deduction incentives for individual tax payers.
5. Promotion of FDI in the infrastructure sector: To facilitate infrastructure financing 100 per cent FDI is allowed under the automatic route in some of the sectors such as mining, power, civil aviation sector, construction and development projects, industrial parks, petroleum and natural gas sector, telecommunications, railways and special economic zones.
6. RBI promotes bank lending for the infrastructure sector.

7. Viability Gap funding
8. Liberalized ECB (External Commercial Borrowings) regime for infrastructure companies. Companies can avail upto \$ 750 million for infrastructure projects.
9. Use of foreign exchange reserves for infrastructure projects through (IIFCL)
10. The RBI has categorized infrastructure lending NBFCs into a special category and allowed concessional type of operations to them.
11. The central government has successively increased its allocation for the sector in each budget. The budget 2016-17 allocates nearly Rs 2 lakh crore with road sector itself getting Rs 70000 crore funds from the budget.
12. FIIs are allowed to invest in infrastructure debt funds. Besides, QFIs are also encouraged to make investment in the sector especially through financing of bonds.
13. Take out financing scheme.
14. Green bond scheme.

#### 4.9 key words:

**Physical Infrastructure:** it refers to the basic structure required for an economy to function and service.

**Social Infrastructure:** the construction and maintenance of facilities that support social services like health care, education etc.

**Financial Infrastructure:** it signifies financial assets, financial market and financial intermediaries.

#### 4.10 Suggested Readings

Annual Reports on India Railways, Various years, [www.indianrailways.gov.in](http://www.indianrailways.gov.in)

Basic Road Statistics of India 2016-17, Ministry of Road Transport and Highways,  
GOI

Handbook of Statistics on Indian Economy, Various Years Reserve Bank of India

[http://cea.nic.in/reports/monthly/installedcapacity/2019/installed\\_capacity-06.pdf](http://cea.nic.in/reports/monthly/installedcapacity/2019/installed_capacity-06.pdf)

<https://www.ibef.org/download/Infrastructure-Report-April-2018.pdf>

India Infrastructure Report, Various Years

SRS Bulletin, Various Years.

## UNIT-V

### PUBLIC FINANCE AND ECONOMIC REFORMS

#### Structure

- 5.0 Objectives
- 5.1 Introduction
- 5.2 Trends in Revenue and Expenditure of Central and State Governments
- 5.3 Public Debt
- 5.4 Tax Reforms in India
- 5.5 Deficit Financing and Price Behaviour in India:
- 5.6 Economic Reforms:
  - 5.6.1 Evaluation of Economic Reforms:
- 5.7 WTO and Indian Economy
- 5.8 Foreign Capital and MNCs (Multi-national Corporations):
- 5.9 Questions
- 5.10 Key Words
- 5.11 Suggested Readings

#### 5.0 Introduction

With the increase in responsibilities of government, their activities are also increasing. As a result, government budget becomes more and more important. Today government budget is much more than a statement of income and expenditure (Choudhary, 2012). Government budget reflects taxation, public expenditure policy along with future course of actions. The budget of union government consists of:

- (i) **Revenue Budget:** Revenue budget is the estimates of receipts and disbursement relating to revenue account. The revenue receipts of union government are broadly *tax revenue* and *non-tax revenue*. Tax revenue are those revenue receipts which are either from direct taxes or indirect taxes which includes *taxes on income, taxes on property and capital transactions* and *taxes on securities and commodities*. On the other hand, non-tax revenues are the revenue collected from sources other than taxes. Non-tax revenues are divided into *fiscal and other services, interest receipts* and *dividends and profit*. However, for state government, apart from own tax and own non-tax revenue, revenue receipts include *transfer payments from the centre*.

- (ii) **Capital Budget:** Capital budget is the estimates of receipts and disbursement relating to capital account. Capital receipts are non-recurring.

To fulfill the targets set in the budget, government need to spend money, i.e., public expenditure. Thus, public expenditure has a very important role to attain the goals of a country like growth, development, equity and stability. The expenditure by government are broadly:

- (i) **Revenue Expenditure:** Revenue expenditures are those expenditures which neither create any assets nor reduce liability. For example, salaries of employees, interest payment on past debt, subsidies, pension etc.
- (ii) **Capital expenditure:** Capital expenditure are those expenditures which create an asset or reduces liabilities. For example, school building, repayment of loan.

## 5.1 Objectives

The students are expected to acquaint themselves about the various facets of public finance; including the various fiscal and monetary handles, including the basis of structural reforms and the increasing role of multinational corporations at the backdrop of globalization. As such, the students will learn:

- Trends in revenue and expenditure of central and state governments
- Public debt
- Characteristics of tax reforms in India
- Deficit financing and price behaviour in India: Consequences and policy suggestions
- Foreign capital and MNCs in India

## 5.2 Trends in Revenue and Expenditure of Central and State Governments

### Central Governments:

Table 5.1 highlights the revenue receipts as a percentage of GDP of central government. The revenue receipts of central government in last few years were erratic as a percentage of GDP. However, as a percentage of GDP, revenue receipts of union government increased in 2014-15 (B.E) as compare to 2001-02. As a percentage of GDP, in 2001-02 total revenue receipts of union government was 8.55 percent and it became 10.87 percent in 2008-

09 which is highest during 2001-15. However, in 2012-13 it becomes 8.69 percent. In 2014-15 (B.E) it again increased to 9.24 percent. Non-tax revenue shows a decreasing trend from 2.88 percent in 2001-02 to 1.79 percent in 2009-10 but in 2010-11 it increased to 2.81 percent and then again it declined. On contrast, net tax revenue of union government shows an increasing trend from 5.67 percent to 8.81 percent in 2007-08. With some fluctuation, after 2007-08, the net tax revenue became 7.59 in 2014-15 (BE).

**Table 5.1**  
**Trends in Revenue Receipts of Central Government**  
**(As a percentage of GDP)**

| Year          | Non-Tax revenue | Net Tax Revenue | Total Revenue |
|---------------|-----------------|-----------------|---------------|
| 2001-02       | 2.88            | 5.67            | 8.55          |
| 2004-05       | 2.50            | 6.93            | 9.44          |
| 2007-08       | 2.05            | 8.81            | 8.84          |
| 2008-09       | 1.72            | 7.87            | 10.87         |
| 2009-10       | 1.79            | 7.05            | 9.60          |
| 2010-11       | 2.81            | 7.32            | 10.13         |
| 2011-12       | 1.35            | 6.99            | 8.34          |
| 2012-13       | 1.36            | 7.34            | 8.69          |
| 2013-14(R.E)  | 1.70            | 7.36            | 9.06          |
| 2014-15 (B.E) | 1.65            | 7.59            | 9.24          |

*Source: Fourteenth Finance Commission, Government of India.*

Expenditure of central government of India depicts a trend which is just opposite of revenue receipts of it. There is decreased of total expenditure of union government in 2014-15 (BE) as compare to 2001-02. Table 5.2 depicts that, as a percentage to GDP, in 2001-02 total expenditure was 15.38 per cent which declined to 14.29 percent in 2007-08. Again it increased to 15.82 percent in 2010-11 and it became 13.94 percent in 2014-15 (B.E). The decrease in total expenditure of the union government is in terms of reduction of capital expenditure. The capital expenditure of union government was 2.58 per cent in 2001-02 and it came down to 1.76 per cent in 2014-15 (BE). The revenue expenditure of the central government remains more or less same in terms of percentage to the GDP. Revenue expenditure was 12.80 percent in 2001-02 which decreased in 2014-15 (B.E) it becomes 12.18 percent. The declining of capital expenditure indicates that the emphasis on asset creation is declining in relative sense.

**Table 5.2**  
**Trends in Expenditure of Central Government**  
**(As a percentage of GDP)**

| Year          | Revenue Expenditure | Capital Expenditure | Total Expenditure |
|---------------|---------------------|---------------------|-------------------|
| 2001-02       | 12.80               | 2.58                | 15.38             |
| 2004-05       | 11.85               | 3.50                | 15.35             |
| 2007-08       | 11.92               | 2.37                | 14.29             |
| 2008-09       | 14.10               | 1.60                | 15.70             |
| 2009-10       | 14.08               | 1.74                | 15.82             |
| 2010-11       | 13.37               | 2.01                | 15.38             |
| 2011-12       | 12.72               | 1.76                | 14.48             |
| 2012-13       | 12.30               | 1.65                | 13.95             |
| 2013-14 (R.E) | 12.33               | 1.68                | 14.01             |
| 2014-15 (B.E) | 12.18               | 1.76                | 13.94             |

*Source: Fourteenth Finance Commission, Government of India.*

### State Government:

**Table 5.3**  
**Trends in Revenue Receipts of State Government**  
**(As a percentage of GDP)**

| Year          | Own tax Revenue | Own non-tax Revenue | Total Own Revenue | Total Transfers from Union | Total Revenue Receipts |
|---------------|-----------------|---------------------|-------------------|----------------------------|------------------------|
| (1)           | (2)             | (3)                 | (2+3)             | (5)                        | (2+3+5)                |
| 2004-05       | 5.6             | 1.4                 | 7.0               | 4.1                        | 11.2                   |
| 2005-06       | 5.7             | 1.3                 | 7.0               | 4.6                        | 11.6                   |
| 2006-07       | 5.9             | 1.6                 | 7.4               | 5.0                        | 12.2                   |
| 2007-08       | 5.8             | 1.5                 | 7.3               | 5.2                        | 12.5                   |
| 2008-09       | 5.7             | 1.4                 | 7.1               | 5.1                        | 12.3                   |
| 2009-10       | 5.6             | 1.4                 | 7.0               | 4.8                        | 11.7                   |
| 2010-11       | 5.9             | 1.2                 | 7.1               | 4.9                        | 12.0                   |
| 2011-12       | 6.2             | 1.1                 | 7.3               | 4.9                        | 12.2                   |
| 2012-13       | 6.5             | 1.2                 | 7.6               | 4.8                        | 12.4                   |
| 2013-14 (R.E) | 6.6             | 1.2                 | 7.8               | 5.4                        | 13.2                   |
| 2014-15(B.E)  | 6.5             | 1.2                 | 7.7               | 6.5                        | 14.2                   |

*Source: Fourteenth Finance Commission, Government of India.*

Table 5.3 represents the revenue receipts of state government. The total revenue receipts of the state governments as a per cent of GDP are increasing. Total revenue receipts of state governments increased to 14.2 per cent in 2014-15 (B.E) from 11.2 per cent in 2004-05. Looking into the broad components of revenue receipts of state governments, it is found that own tax revenue and transfers from centre have increased but own non-tax revenue has declined. The own revenue receipts of states increased from 7.0 percent in 2004-05 to 7.8 percent in 2013-14 (R.E) but again declined to 7.7 percent in 2014-15 (B.E). Own tax revenue showed also an upward trend from 5.6 percent in 2004-05 to 6.6 percent in 2013-14 (R.E) and then it declined to 6.5 percent in 2014-15 (BE). Own non-tax revenue showed a

decreasing trend. In 2004-05, it was 1.4 percent and it has increased to 1.6 percent in 2006-07. In 2014-15 (B.E), own non-tax revenue decreased to 1.2 per cent.

**Table 5.4**  
**Trends in Revenue and Capital Expenditure of State Government**  
**( As a percentage of GDP)**

| Year          | Revenue Expenditure | Capital Expenditure | Total Expenditure |
|---------------|---------------------|---------------------|-------------------|
| 2004-05       | 12.4                | 2.3                 | 14.7              |
| 2005-06       | 11.8                | 2.5                 | 14.4              |
| 2006-07       | 11.7                | 2.5                 | 14.3              |
| 2007-08       | 11.6                | 2.6                 | 14.2              |
| 2008-09       | 12.1                | 2.8                 | 14.9              |
| 2009-10       | 12.3                | 2.5                 | 14.9              |
| 2010-11       | 12.0                | 2.2                 | 14.1              |
| 2011-12       | 11.9                | 2.3                 | 14.3              |
| 2012-13       | 12.2                | 2.2                 | 14.4              |
| 2013-14 (R.E) | 13.2                | 2.6                 | 15.8              |
| 2014-15 (B.E) | 13.9                | 2.7                 | 16.7              |

*Source: Fourteenth Finance Commission, Government of India.*

Table 5.4 represents the trends in revenue and capital expenditure of state governments. Total expenditure of state governments was 14.7 percent in 2004-05 and remains more or less stable up to 2012-13. As per budget estimate of 2014-15, total expenditure became 16.7 per cent of GDP. The increase in total expenditure of state government is accompanied by both revenue expenditure and capital expenditure. Revenue expenditure was 12.4 per cent in 2004-05 and in 2014-15 (B.E) it becomes 13.9 percent. Similarly, capital expenditure increased from 2.3 per cent in 2004-05 to 2.7 percent in 2014-15 (B.E).

### **5.3 Public Debt**

Public debt refers to the borrowings of state governments either from internal sources or from external sources. According to Raja. J. Chelliah, exponential growth of public debt has arisen not merely because revenue expenditure has been running ahead of current revenues but also because capital expenditures financed by borrowings have not yielded adequate returns (Misra and Puri, 2008).

#### **Debt obligation of central government**

The debt obligation of union government can be divided broadly in to three categories- Internal debt, External debt and other liabilities. However, as many experts



includes other liabilities in to internal debt in analysis of fiscal matter in India, the present analysis also follow the same in rest of the discussion.

**a) Internal Debt:** Internal debt indicates the borrowings within the country. Internal debt includes

- (i) **Market Loans:** Market loans are interest bearing and at the time of issue these have maturity period of 12 months. Market loans are issued by the government every year. Market loans were Rs. 4,441 crores at the end of march 1971 and it rose to Rs. 70,520 crores in 1991. Total market loans had risen to Rs. 10,92,472 crores at the end of March 2008.
- (ii) **Bonds:** Bonds category comprises gold bonds, compensation and other bonds. Other bonds like National Rural Development Bonds and Capital Investments Bonds. Bonds have ten years' maturity periods and these carry 7 per cent interest rates.
- (iii) **Treasury Bills:** Treasury bills regarded as a major short term source to fill the gap between revenue and expenditure. These are issued every Friday by Reserve Bank of India. The maturity period of treasury bills are 91 days or 182 days and 364 days.
- (iv) **Special Floating and Other Loans:** Special floating and other loans means contribution of Government of India to international financial institutions like IMF (International Monetary Fund), IBRD (International Bank for Reconstruction and Development), IDA (International Development Association). At the call of these institutions, Governments are liable to pay the amount. These are non-negotiable and non-interest bearing.
- (v) **Special Securities Issued to RBI:** The government takes temporary loans from reserved bank of India and also special securities. They are non-negotiable and non-interest bearing. Such borrowings are for short periods.
- (vi) **Ways and Means Advances:** To meet the short period expenditure, the Government of India takes ways and means advances from the Reserve Bank of India. These debts are for very short periods that is only for 3 months.
- (vii) **Securities against Small Savings:** With the introduction of national small savings fund (NSSF) system, a large part of small savings have been converted into securities of central government. The amount of such securities was Rs. 204799 crore by end of March, 2008.

- (viii) **Small Savings:** Small savings are another important internal debt source which volume is increasing day by day. National Savings Certificates is one example of such savings.
  - (ix) **Provident Funds:** Government also collect money in terms of State Provident Fund and Public Provident Fund. Outstanding amount under provident fund was expected to be Rs.76240 crore by the end of March, 2008.
  - (x) **Other Accounts:** It includes Postal Insurance and Life Annuity Fund, Hindu Family Annuity Fund, Borrowing against Compulsory Deposits and Income-Tax Annuity Deposits and Special Deposits of Non-Government Provident Fund.
  - (xi) **Reserve Funds and Deposits:** Some reserve funds and deposits are interest bearing and some are not. It includes Depreciation and Reserve Funds of Railways and Department of Posts and Department of Telecommunications, deposits of Local Funds, departmental and judicial deposits, civil deposits etc.
- c) **External Debt:** external debts are the borrowings from other countries. External debt is usually raised in foreign currency and a substantial part of repayment is made also in foreign currency. Underdeveloped and developing countries borrow from foreign countries for economic development, high level of investments, purchase capital equipment, cover deficit balance of payment. Indian Government has borrowed from number of countries like USA, UK, France, Japan etc. and international financial institutions like IMF, IBRD, IDA etc.

**Table 5.5**  
**Debt Position of Central Governments (Rupees Billion)**

| Year<br>(end-March) | Internal<br>Debt | Total Internal<br>Liabilities | External<br>Liabilities | Total Liabilities |
|---------------------|------------------|-------------------------------|-------------------------|-------------------|
| 2018-19 (BE)        | 69962.20         | 87036.57                      | 4055.19                 | 91091.76          |
| 2017-18 (RE)        | 64249.17         | 79895.45                      | 4105.26                 | 84000.71          |
| 2016-17             | 57417.09         | 72078.03                      | 4081.08                 | 76159.11          |
| 2015-16             | 53048.35         | 66917.09                      | 4065.89                 | 70982.98          |
| 2014-15             | 47382.91         | 60450.07                      | 3661.93                 | 64112.00          |
| 2013-14             | 42407.67         | 54848.48                      | 3744.84                 | 58593.32          |
| 2012-13             | 37645.66         | 48933.03                      | 3320.04                 | 52253.07          |
| 2011-12             | 32306.22         | 43471.64                      | 3228.90                 | 46700.54          |
| 2010-11             | 26671.15         | 37811.35                      | 2784.55                 | 40595.90          |
| 2009-10             | 23283.39         | 33958.77                      | 2492.88                 | 36451.65          |
| 2008-09             | 20198.41         | 30361.32                      | 2639.76                 | 33001.08          |

Source: RBI, accessed from <https://dbie.rbi.org.in/DBIE/dbie.rbi?site=publications> on 17/08/2019

Table 5.5 depicts that the total liabilities of central government increased to Rs. 91091.76 billion in 2018-19 (BE) from Rs.33003.08 billion in 2008-09. Both the internal and external liabilities depict increasing trends.

### Debt obligation of state governments

The debts of the state governments are of following categories:

- (i) Internal debts such as market loans and bonds, ways and means advances from RBI, loans from banks and other institutions and special securities issued to NSSF.
- (ii) Loans and advances from central government.
- (iii) Provident funds.
- (iv) Reserve funds.
- (v) Deposits and advances and
- (vi) Contingency funds.

The total liabilities of state governments was Rs. 16486.50 billion in 2009-10 and it became Rs.45408.47 billion in 2018-19 (BE). Looking in the different broad components of debt of states, it is found that debt of states under all heads increased at the end of the reference period as compared to initial period of study.

**Table 5.6**  
**Debt Position of States (Rupees Billion)**

| Year<br>(End -<br>March) | Total<br>Internal<br>Debt | Loans and<br>Advances<br>from Central<br>Governments | Total<br>Provident<br>Funds | Reserve<br>Funds | Deposits<br>and<br>Advances | Contingency<br>Funds | Total<br>Liabilities |
|--------------------------|---------------------------|--|-----------------------------|------------------|-----------------------------|----------------------|----------------------|
| 2018-19<br>(BE)          | 34982.55                  | 1794.80  | 4192.09                     | 991.15           | 3400.37                     | 47.51                | 45408.47             |
| 2017-18<br>(RE)          | 30649.82                  | 1652.20  | 3860.03                     | 822.57           | 3191.18                     | 45.01                | 40220.82             |
| 2016-17                  | 27339.05                  | 1534.63  | 3579.17                     | 716.38           | 3082.09                     | 41.77                | 36293.10             |
| 2015-16                  | 23155.22                  | 1482.17  | 3522.11                     | 1384.61          | 2595.42                     | 41.73                | 32181.26             |
| 2014-15                  | 18846.99                  | 1471.67  | 3200.85                     | 995.93           | 2460.94                     | 61.21                | 27037.60             |
| 2013-14                  | 16370.67                  | 1458.09  | 3057.97                     | 1494.96          | 2299.94                     | 31.00                | 24712.63             |
| 2012-13                  | 14558.35                  | 1448.12  | 2793.65                     | 1315.58          | 1952.29                     | 34.46                | 22102.46             |
| 2011-12                  | 13228.68                  | 1435.48  | 2534.46                     | 919.36           | 1789.77                     | 31.42                | 19939.16             |
| 2010-11                  | 11963.69                  | 1441.70  | 2282.35                     | 1031.72          | 1536.56                     | 33.74                | 18289.76             |
| 2009-10                  | 10736.26                  | 1431.52  | 2005.61                     | 943.50           | 1345.27                     | 24.33                | 16486.50             |

Source: RBI, accessed from <https://dbie.rbi.org.in/DBIE/dbie.rbi?site=publications> on 17/08/2019

## 5.4: Tax Reforms in India

In August 1991, the tax reforms committee was set up under the chairmanship of Raja J. Chelliah to examine the tax structure and to reform both direct taxes and indirect taxes. The committee emphasised on making the tax system simple, reduction of rate of taxation, few exemption and deductions. This committee also gave importance on introducing stability and rationality in the tax structure.

In case of particular taxes, Chelliah Committee recommended the following measures:

- (i) In order to make the direct tax more effective, income tax regime should have lower rate of taxation with a narrow spread between entry rate and maximum marginal rate and should contain a minimum of tax incentives.
- (ii) The system of subjecting in income of both partnership firms and the partners to taxation which resulted double taxation and it should be avoided.
- (iii) They suggested to lowered corporation tax rate for domestic companies to 40 per cent and for abolition of surcharge. Lowering of tax rate for foreign companies also suggested. Further, the gap between tax rates on domestic and foreign companies was suggested to keep around 7.5 percentage point with an upper limit of 10 percentage points.
- (iv) A system of indexation is to be adopted to solve the problem of long term capital gains and inflation.
- (v) For levying wealth tax, this committee make a distinction between productive and non-productive assets and shares, securities were exempted from wealth tax.
- (vi) Chelliah Committee recommended a reduction in general tariff and reduction in the dispersion in tariff rates and rationalised the system of custom duties.
- (vii) This report also recommended to switching over to advalorem rates on a number of articles to ensure buoyancy in revenue as a result of increased price.

### Implementation of Chelliah Committee Recommendation:

The basic recommendation is to restore the tax system to its primary function of generating revenues in an efficient manner. The major changes which have already been made in the direct and indirect tax policies are:

- (i) **Direct Taxes:** Income tax has been restructured with lower taxes, fewer slabs, higher exemption limit and reduce saving link tax exemptions. To rationalised the taxation of firms, eliminate the distinction between registered and unregistered firms. In corporation tax, tax reduce to 30 percent for domestic companies. In case of capital gains, only capital of price increases would be taxed. The changes of wealth tax have also made on the basis of taxation from wealth to unproductive assets.
- (ii) **Indirect Taxes:** Government has been also taken several measures since 1991-92 to reform the indirect tax structure. To reform the indirect tax, reduction the number of rates, remove exemptions and switch over the advolerem rates. Import duties which rose to more than 150 percent in several cases before reform, reduced to 10 percent in 2007-08. MODVAT is also extended to all commodities through Central Value Added Tax (CENVAT). Rakesh Mohan says that country's next step of reform should be move towards "Goods and Service Tax".

### **Vijay Kelkar Committee (2002) Recommendations on Direct tax:**

In 2002 under the chairmanship of Vijay Kelkar direct tax reforms came in India with the recommendation of task Force on Direct and Indirect Taxes. The main recommendations of this committee are (GKTODAY, November 23, 2015):

Administration of direct tax:

- (i) There should be extension of quality and quantity of taxpayer services and taxpayers should get easy access to internet and email.
- (ii) All citizens should be covered by PAN.
- (iii) There should be abolishment of block assessment of search and seizure cases.
- (iv) Department should outsource data entry work in order to clear backlog.
- (v) Within four month, returns and refund related issues should be addressed.
- (vi) To modernise, simplify and rationalize tax collection, Tax Information Network should be established.
- (vii) Requirement for Tax Clearance Certificate should be abolished in case of leaving the country.
- (viii) CBDT should be empowered with necessary administrative and financial powers.

**Personal Income Tax:**

- (i) Increase in exemption limit to Rs.1 lakh for the general categories of taxpayer and further exemption for senior citizen and widows.
- (ii) Rationalize income tax slabs, eliminate surcharge on personal income tax.
- (iii) Incentivise home loans by providing interest subsidy on home loans at the rate of 2 percent.

**Corporation Tax:**

- (i) Reduce the corporation tax to 30 percent for domestic companies and 35 percent for the foreign companies.
- (ii) The listed companies should be exempted from tax on dividends and capital gains.
- (iii) Increase rate of depreciation for plant and machinery.
- (iv) Abolish Minimum Alternate Tax.

**Wealth Tax:**

- (i) Abolition of wealth tax.

**Service Tax**

In 1994-95, service tax was imposed for the first time. In that year, union service tax at a rate of 5 per cent was introduced on telephone, general insurance and stock brokerage. The number of items on which service tax was imposed increases latter on.

**State Value Added Tax**

From April 1, 2005, at the state level Value Added Tax (VAT) has been introduced. The two basic rates of VAT are 4 per cent and 12.5 per cent.

**Goods and Service Tax**

The goods and service tax (GST) is the biggest reform in the country. GST is come into effect on 1 July 2017. It is a comprehensive, multi stage tax which has replaced many indirect taxes in India. The main objectives of GST are to eliminate tax on double taxation.

At the time of launching GST in India, there were five different rates of tax (Kagan, J, February 8, 2019):

- Zero percent tax rate for certain foods, book, newspaper, cotton cloth, hotel service under Rs.1000.
- 5 percent tax rate to apparel below Rs.1000, package food items, footwear under Rs. 500 etc.
- 12 percent tax for apparel over Rs. 1000 like frozen meats, sugar, bio-diesel etc.
- 18 percent tax rate applied to certain luxury items like makeup, swimming pools etc. which cost more than Rs. 500.
- 28 percent tax rates applied to 50 luxury product including cars, motor cycles, ceramic tiles etc.

The rates of GST in India has been kept changing time to time. Table 5.7 depicts the changes in GST as per 31<sup>st</sup> council meeting of GST.

**Table 5.7**  
**List of rate changes at 31st GST Council Meeting**

| SL.no | List of Goods/Services   | Changes in Tax Rate |
|-------|--|---------------------|
| 1     | Vegetables provisionally preserved but unsuitable for immediate consumption                                  | 5% to Nil           |
| 2     | Vegetables cooked/uncooked via steamed, frozen or boiled (branded)   | 5% to Nil           |
| 3     | Music Books  | 12% to Nil          |
| 4     | Parts for manufacturing renewable energy devices falling under chapter 84, 85 or 94 of Tariff                | 5%                  |
| 5     | Natural cork   | 12% to 5%           |
| 6     | Fly ash blocks   | 12% to 5%           |
| 7     | Walking sticks   | 12% to 5%           |
| 8     | Marble rubble  | 18% to 5%           |
| 9     | Agglomerated cork  | 18% to 12%          |
| 10    | Cork roughly squared or debugged   | 18% to 12%          |
| 11    | Articles of Natural cork   | 18% to 12%          |
| 12    | Movie Tickets < or = Rs 100  | 18% to 12%          |
| 13    | Premium on Third party insurance on Vehicles   | 18% to 12%          |
| 14    | Accessories for Handicapped Mobility Vehicles  | 28% to 5%           |
| 15    | Power banks  | 28% to 18%          |
| 16    | Movie Tickets > Rs 100   | 28% to 18%          |
| 17    | Video game consoles, equipment used for Billiards and Snooker and other sport related items of HSN code 9504 | 28% to 18%          |
| 18    | Retreated & used pneumatic Rubber Tyres  | 28% to 18%          |
| 19    | Colour Television Sets & monitors up to "32 Inches"  | 28% to 18%          |
| 20    | Digital & Video Camera recorders   | 28% to 18%          |
| 21    | Pulleys, transmission shafts, cranks and gear boxes under HSN 8483   | 28% to 18%          |
| 22    | Tax rate on Air travel of pilgrims reduced*  | 28% to 18%          |

Source: accessed from <https://cleartax.in/s/gst-rates> on 17/08/2019

## 5.5 Deficit Financing and Price Behaviour in India:

Government use deficit financing to acquire funds to finance economic development of the country. If the normal revenue receipts of government from tax and non-tax sources and borrowings are not sufficient enough to meet its expenditure government relies on deficit financing. As per Planning Commission of India, deficit financing is equal to the net increase in the purchasing power of the economy arising through budgetary operations of the government (Dhar, 2003). In India, deficit financing in proper sense of fiscal deficit was mainly adopted to enable the government to obtain necessary resources require for five year plans (Dutt and Sundharam, 2001).

We can analyse deficit financing in the form of revenue deficit and budgetary deficit. Revenue deficit means deficit in current account. Budgetary deficit indicates the difference between total expenditure and total receipts (both revenue and capital). Basically, budgetary deficit known as deficit financing in India. Fiscal deficit is another concept of deficit adopted by government. Fiscal deficit is defined as budgetary deficit plus borrowing and other liabilities.

The three types of deficits can be calculated as:

- $\text{Fiscal Deficit} = \text{Revenue Receipts (Non Tax Revenue + Net Tax Revenue)} + \text{Capital Receipts (Only recoveries of loans and other receipts)} - \text{Total Expenditure (Plan and non- plan expenditure)}.$
- $\text{Budgetary Deficit} = \text{Total Expenditure (Revenue + Capital)} - \text{Total Receipts (Revenue + Capital)}.$
- $\text{Revenue Deficit} = \text{Current Revenue Expenditure (Non Plan+ Plan Expenditures)} - \text{Current Revenue Receipts (Net Tax Revenue + Non Tax Revenue)}.$

Table 5.8 shows the deficit financing of India. In 2001-12, as a percentage of GDP, fiscal deficit was 6.1 percent which decrease to 6.0 percent in 2008-09 but in 2009-10 it raised to 6.5 percent. Revenue deficit also declined from 4.3 percent in 2001-02 to 1.1 percent in 2007-08. However, it became 5.2 percent in 2009-10. Primary deficit was 1.5 per cent in 2001-02 and in 2009-10 it became 3.2 percent. However, in 2004-05 and 2007-08, there was surplus in case of primary deficit.



**Table 5.8**  
**Fiscal Indicators of the Union Government**  
**(As a Percentage of GDP)**

| Year    | Fiscal Deficit | Revenue Deficit | Primary Deficit |
|---------|----------------|-----------------|-----------------|
| 2001-02 | 6.1            | 4.3             | 1.5             |
| 2004-05 | 4.0            | 2.5             | -0.1            |
| 2007-08 | 2.5            | 1.1             | -0.9            |
| 2008-09 | 6.0            | 4.5             | 2.6             |
| 2009-10 | 6.5            | 5.2             | 3.2             |

*Source: Fourteenth Finance Commission, Government of India.*

### **Deficit financing and inflationary pressure:**

The Government of India has been adopting the policy for financing its developmental plans. Due to the factors like low level of income, low level of savings and low capital formation, deficit financing is taking by government of India in increasing proportion. However, rise in inflationary pressure is the most serious adverse impact of deficit financing on the economy. Deficit financing increases money supply in the economy resulting rise in aggregate demand for goods and services. In such situation, if there is lack of rise in supply of goods and services at the rate with increased aggregate demand, price rise will occur. In this context, Dr. V.K.R.V. Rao pointed as:

*‘Deficit financing is the name of volume of those forced savings which are the result of increase in prices during the period of the government investment. Thus, deficit financing helps the country by providing funds for meeting the requirements of economic growth but at the same time it also create problem of inflationary rise in prices. Thus, deficit financing must have kept within the manageable limit.’* Dhar, 2003.

Deficit financing becomes self-defeating when it goes too far. The rise in prices followed by rise in costs which result increase in price further. In such situation if price rise is controlled, costs continue to increase causing decline of profitability of investment. So, there will be decrease in investment.

Ways to reduce deficit financing are:

- Emphasis should be given on taxed based revenue.
- Disinvestment should be done where assets are not used properly.
- Government should reduce the subsidies which can help in finance the deficit.

- Borrowing from both domestic and external sources.

An uncontrolled budget deficit may adversely affect the health of the economy. Therefore, government should plan the revenues and expenditure in such a way that the economy moves toward a balanced budget situation.

## 5.6 Economic Reforms:

In 1991, P.V. Narasimha Rao led Union Government of India introduced the New Economic Policy (NEP) in response to the suggestions made by World Bank and the International Monetary Fund. The two broad objectives of the new economic policy were:

- (iii) To correct macro imbalances which had destabilised the economy during the late 80's and early 90's, such as acute foreign exchange shortage, high rate of inflation, unsustainable fiscal deficit and current account deficit and growing internal and external debts.
- (iv) To accelerate the overall growth of the economy.

The NEP consists of two major set of measures for fulfilling the above-mentioned objectives.

- Stabilization of the economy at the macro level and
- Structural adjustments in the economy.

The important arguments in favour of economic reforms 1991 are:

- (i) Through market mechanism, economic reforms improve productivity of labour.
- (ii) Economic reforms play a very important role in making remedy to the problems of Public Sector Undertakings.
- (iii) Economic reforms attempt to reduce growth of non-plan expenditure through withdrawal of subsidies on foods, fertilizers, exports and higher education.
- (iv) Economic reforms has made sincere attempt to reduce the dependence on domestic borrowing and deficit financing.
- (v) Economic reforms also help the industrial sector from unnecessary regulation.
- (vi) The economic reforms also play a very important role to simplify and rationalise the entire tax structure of the economy.

(vii) Economic reforms in India made a provision for increased flow of foreign direct investment which help to modernize the technology as well as increasing the productivity.

(viii) The growth of service sector was increasing and industrial sector was fluctuating during the time of reforms.

The economic reform 1991 has three components:

- (i) **Liberalization:** Liberalization means liberate the trade and industry from unwanted restrictions. This reforms allowed for opening up economic borders for foreign investments as well as multinationals. Under liberalization this reform included expansion of production capacity, abolishing industrial licensing by government and freedom to import goods. The new economic reforms liberalised all the industries excepting 18 industries, are decentralised and sell shares without any restrictions. According to the needs of the market industries are allowed to expand their capacity. MRTP companies are allowed to expand their size.
  - (ii) **Privatization:** Privatization indicates introduction of private ownership in publicly owned. It refers to giving more opportunities to the private sector and role of public sector is reduced. Privatization allow the entry of foreign direct investments and aim to improve the governments' financial condition. The privatization of economic reforms includes:
    - Reducing the number of industries reserved for public sector 17 to 8.
    - Raised the share of private sector to total investment.
    - Support of Institutional credit to private sector to raise the efficiency and productivity of the private sector.
  - (iii) **Globalization:** By the word globalization means to connect with the world. In this context, globalization indicate to integrate the Indian Economy. It encourages private and foreign trade. Both opportunity and challenges are offered by the globalization of the economy.
- Globalization of Indian Economy made the following changes:
- Automatic permission is provided to foreign direct investment up to 51 percent of foreign equity.
  - Automatic Permission is also provided to high priority industries in case of foreign technology agreements.

- To make international adjustment of Indian currency, rupees was devalued in July 1991 by 20 percent and it stimulate export, discourage import.
- On March 31, 1992, a new five year export-import policy was announced to establish the framework for globalization of India's foreign trade, to enhance productivity, competitiveness and modernisation of industries to increase their export capabilities.
- The government has taken various step to increase the flow of foreign investments like granting foreign technical collaboration of high priority industries, freedom to import foreign technology to private entrepreneurs, for financial foreign investment and collaboration proposals established Foreign Promotion Board (FIPB) and Offering concessions to FERA/ FEMA companies.
- Government has taken various steps for correcting balance of payment deficit to meet the international competitiveness.

### **5.6.1 Evaluation of Economic Reforms:**

In India economic reforms was introduced in 1991. Economic reforms play a very important role for the development of Indian economy but there are both positive and negative sides. There is a dramatic change in nature of institutions and markets, industrial organisations and structures, social relation to productions. India has responded the global change in the areas like fiscal policy, monetary policy, public sector policy, industrial policy, trade policy, foreign direct investment policy etc. The main objective of these policy reforms is to set the foundation for sustained growth of output and employment through increasing the global competitiveness. Economic reforms also play an important role to simplify and rationalise the entire tax structure of the country. It also helps the industrial sector from unnecessary regulations.

Moreover, unless the profitability of the public sector is improved, the country cannot allocate more fund on education, health, and rural development. It is not possible to maintain government control, regulation and also expect to fully exploit the potential dynamism of various entrepreneurs, professionals and workers at the same time. Similarly, when there is strict control and licensing of import to protect the domestic industry for which losing the

competitiveness of these industries, it cannot be expected to attain sustained growth of its export at the same time. Moreover, new economic reforms have failed to control inflation and also fiscal deficit. The subsidies on the fertilizers were removed and it led to an increase in the cost of production which affected many marginal and small farmers.

Thus, it is argued that there is no alternative of economic reforms but it must be kept in mind that in Indian economy whatever the policy reforms and restructuring programmes are to be adopted, it must have its adaptability in Indian soil and must also serve for the general masses.

## **5.7 WTO and Indian Economy**

The way for setting up of World Trade Organisation (WTO) was paved by the Final Act of Uruguay round signed by member nations of GATT. On January 1, 1995 WTO was established with a promise for the entire world economy in respect of international trade. The WTO agreement was signed by 123 nations and India is one among the founder member nations. WTO is a new international organisation set up as a permanent body and is designed to play the role of a watchdog in the spheres of trade in goods, trade in services, foreign investment, intellectual property rights etc. (Misra and Puri, 2008).

The functions of WTO are (Misra and Puri, 2008):

- It facilitate the implementation, administration and operation, of this agreement and of the multilateral trade agreements. Further, WTO provides the framework for implementation, operation and administration of the plurilateral trade agreements.
- To provide the forum for negotiations among its members concerning their multilateral trade relations in matters dealt with under the agreements in the annexures to this agreement.
- To administer the understanding on rules and procedures governing the disputes settlement .
- To administer the trade policy review mechanism.
- The WTO shall cooperate, as appropriate, with the IMF and International Bank for Reconstruction and Development and its affiliated agencies to achieve greater coherence in global economic policy making.

The important agreements of WTO are:

- (i) Agreement on agriculture (AOA): This agreement provides framework for long term reform of agricultural trade and domestic policies to increase market orientation in

trade of agricultural goods. Further, in the area of market access, domestic support and export competition, commitments are provided.

- (ii) Agreement on trade in textiles and clothing: under this agreement, in force import quotas on textiles and clothing was decided to phase out by the end of transition period on January 1, 2005.
- (iii) Agreement on market access: There will be reduction of tariffs on industrial and farm goods by an average of 37 percent.
- (iv) Agreement on TRIMs: Introduction of national treatment of foreign investments and removal of quantitative restrictions was called by The Agreement on Trade Related Investment Measures (TRIMs).
- (v) Agreement on TRIPs: Under Trade Related Intellectual Property Rights agreement, countries are forced to adopt stringent conditions for protection of the intellectual property rights. The agreement covers patent, copyrights and related rights, geographical indicators, industrial designs, layout designs of integrated circuits and protection of undisclosed information.
- (vi) Agreement on services: Trade in services was brought within the ambit negotiations in the Uruguay Round. It ruled out some obligations like grant of MFN status to the other member countries in respect of trade in services, maintenance of transparency and a commitment for liberalization in general terms.
- (vii) Dispute Settlement Body (DSB): DSB under WTO seeks to mitigate the limitations in settlement of disputes under GATT. DSB provides security and predictability to the multilateral trading system.

### **India's Commitments to WTO**

The important commitments made by India to WTO are:

- Tariff Lines: India bound about 67 per cent of its tariff lines against previous 6 per cent. With few exceptions, for non-farm goods ceiling bindings of 40 per cent ad valorem on finished goods and 25 per cent on intermediate goods, machinery and equipment were under taken.
- Quantitative Restrictions (QRs): In order to improve balance of payment, Committee on Balance of Payments Restrictions had advised India to phase out of QRs. As per

agreement between USA and India on 2001, QRs was removed on 714 first and then again on 715.

- **TRIPs:** As per ruling of the two disputes settlement panels, appropriate amendment of Patent Act, 1970 by April 19, 1999 was made obligatory for the government of India. Subsequently, the Patents (Amendment) Act, 1999 was passed by the parliament in March 1999 to provide exclusive marketing rights which was followed by the Patent (Amendment) Act, 2002 in May 2002. The Government of India promulgated an Ordinance on December 23, 2004 to meet the commitment to the WTO to introduce product patent by January 1, 2005.
- **TRIMs:** Under TRIMs agreement, India notified two TRIMs relating to local content requirements in the production of certain pharmaceutical products and dividend balancing requirement in case of investment in 22 categories of consumer items.
- **GATs:** Under GATs agreement, India made commitment in 33 activities where Foreign Service providers will be allowed to enter.
- **Customs Valuation Rules:** In order to bring Custom Valuations Rules 1998 in India in conformity with the provisions of the WTO Agreements on implementation of Article VII of GATT 1994 and Custom Valuation Agreement, legislation was amended.

### **India's gains from WTO:**

It was expected that the Indian economy will experienced some important advantages from her membership of WTO. The major gains expected from WTO membership of India are:

- **Expansion in trade:** It was estimated by World Bank, OECD and GATT secretariat that world income will be added by 213 to 274 billion US dollar because of implementation of Uruguay Round package. The GATT Secretariat also estimated that the largest increases will be in the areas of clothing (60 per cent), agriculture, fishery and forestry products (20 per cent) and processed food and beverages (19 per cent). As India's existing and potential export competitiveness lies in these product groups, it was expected that large scale benefits will occur to India.
- **Benefits from phasing out of Multi-Fibre Arrangement (MFA):** Due to phasing out of MFA, the export of clothing and textile was expected to increase. It was thought by

many observes that US and European markets will flood by India's exports of clothes and textile products.

- Improved prospects for agricultural exports: Due to reduction in domestic subsidies and barriers to trade, the world prices of agricultural products was expected to rise resulting improvement in export potential of such products that will be a major gain for India. Further, India has ensured that all major programmes for agricultural development will be exempted from the disciplines in the Agricultural Agreement. Thus, by the provisions of Agreements, public distribution system will not affected, agricultural subsidies provided by developing countries will continue till the specified time limit and required protection to agriculture sector in undeveloped countries will continue.
- Benefits from multilateral rules and disciplines: Strengthening of multilateral rules and disciplines under Uruguay Agreement supposed to ensure secured and predictable international trading system which was thought to be create favourable environment for India in world economy.

## **5.8 Foreign Capital and MNCs (Multi-national Corporations):**

### **Foreign Capital in India**

The underdeveloped countries are very much depending on foreign capital because those countries suffer from low level of income, low level of capital formation, low investments etc. There are three forms of foreign capital that is loans, grants and foreign investment.

- (i) Loans: Loans are available in the form of from developed countries and from international institutions like IBRD, IMF etc.
- (ii) Grants: Any repayment obligations are not available in case of grants and grants are available in the country through various foundation and international institutions.
- (iii) Foreign Investment: Foreign investments are in the form of direct investment on entrepreneur and foreign collaboration.



### **Needs of Foreign Capital:**

In the underdeveloped countries, foreign capital plays a very crucial role in the development process. The need of foreign capital is discussed below:

- (i) **Scarcity of Resources:** One of the important reason behind need of foreign capital in underdeveloped countries like India is scarcity of capital resources. Due to inadequate capital formation there is lack of capital resources.
- (ii) **The Technological Gap:** In underdeveloped countries like India, there is lack of technical knowledge. For attaining international competitiveness and to improve the technology of production foreign capital is very important.
- (iii) **Initial Risk:** In underdeveloped countries, there is lack of experience and lack of high initial risk for which they facing the problem of lack of flow of domestic capital. In such a situation, foreign capital plays an important role by taking the initial risk of investment and help in the flow of domestic capital in the right direction.
- (iv) **Building Infrastructures:** In the underdeveloped countries, for infrastructural development there is a huge need of investment. Foreign capital helps in the development of infrastructure building of underdeveloped countries.
- (v) **Associated Assistance:** For the economic development, technical knowhow, research and development facilities, business experience are very important and foreign capital plays a very important role in providing such type of facilities.
- (vi) **BOP Support:** Deficit balance is one of the serious problem of underdeveloped countries like India. The problem of deficit balance arises in underdeveloped countries due to more import of capital goods. To meet the crisis of balance deficit foreign capital plays a very important role.

**Table 5.9**  
**Foreign Capital Inflows**  
**(in US dollar million)**

| Year    | Net Foreign Direct Investment (FDI)<br>(i) | Net Portfolio Investment (PI)<br>(ii) | Foreign Investment Inflows<br>(ii+iii) | Net Inflow of Aid<br>(iv) |
|---------|--|---------------------------------------|--|---------------------------|
| 2017-18 | 30,286                                     | 22,115                                | 52,401                                 | 2249                      |
| 2016-17 | 35,612                                     | 7,612                                 | 43,224                                 | 1723                      |
| 2015-16 | 36,021                                     | -4,130                                | 31,891                                 | 1696                      |
| 2014-15 | 31,252                                     | 42,205                                | 73,457                                 | 1262                      |
| 2013-14 | 21,564                                     | 4,822                                 | 26,385                                 | 1500                      |
| 2012-13 | 19,819                                     | 26,891                                | 46,710                                 | 910                       |
| 2011-12 | 21,860                                     | 17,171                                | 39,032                                 | 2612                      |
| 2010-11 | 11,305                                     | 30,292                                | 41,597                                 | 4720                      |
| 2009-10 | 17,965                                     | 32,396                                | 50,361                                 | 3129                      |
| 2008-09 | 22,343                                     | -14,032                               | 8,311                                  | 2179                      |

Source: RBI, Accessed from <https://dbie.rbi.org.in/DBIE/dbie.rbi?site=statistics> on 19/08/2019

Table 5.9 depicts that the foreign investment inflows (FIIs) to India in 2017-18 became more than 6 times of it in 2008-09. In 2008, FIIs was US dollar 8311 million and it increased to US dollar 52401 million in 2017-18. The foreign capital inflows to India is dominated by FIIs. Net Inflow of Aid contributes a small proportion of foreign capital inflows to India. While there is substantial increase in Net FDI and Net PI during the last few years, Net Inflow of Aid is more or less remained same.

## MNCs

Multinational corporations (MNCs) are normally huge organisations or firms that engaged in productive activities of corporate nature. MNCs are also known as Transitional Corporations which means their business operations extend beyond the boundaries and border of the country. MNCs can diversify the market of their product in various countries and also can sell their product easily because of huge capital resource, latest technology, worldwide reputation etc.

The main reasons behind the growth of MNCs are:

- (i) Expansion of market territory of these corporations beyond the boundary of country due to its international image.
- (ii) Superiorities in marketing, market reputation, attractive and effective advertisement, sale promotion techniques and warehouse facilities are some other important reasons of growth of MNCs.

- (iii) MNCs have financial superiorities over national firm.
- (iv) Technological superiorities of the MNCs over national companies of the underdeveloped countries.
- (v) Due to superior Research and Development facilities, there is effective product innovation of MNCs.

Collaboration with Indian Industries is a common form of participation of MNCs in Indian Industries. Foreign capital and foreign collaboration have both favourable and harmful impact on Indian economy. Foreign collaboration helps the Indian economy to diversify their product such as steel, light and heavy engineering, petroleum refinery, automobile, chemical etc. In the initial stage, India only emphasised on consumer goods sector only. Without the support of technical knowhow and skills from abroad it has been difficult to develop such basic industries. Thus, Indian industries are gain from foreign collaborations.

But there are also some adverse impacts of foreign collaboration on Indian economy such as:

- (i) Outflow of large amount of money in terms of profits, dividends, interests, technical fee etc.
- (ii) Growing tendency of direct and indirect interference of MNCs in the internal Policy and other affaires.
- (iii) Faulty technology transfer leading to transfer of inappropriate technology too much capital intensive in nature in a labour surplus economy.

## 5.9 Questions

1. Discuss the trends in revenue receipts and expenditures of central and states in India.
2. Explain the trends in public debt of union government and state governments in India. Suggest some ways to curtail the debt burden of government.
3. Discuss the economic reforms 1991 and its impact on the economy of India.
4. What are the changes made by government of India due its agreement with WTO? Discuss the gains India expected to realise from its membership of WTO.
5. Discuss the inflow of foreign capital to India.

## 5.10 Key Words

**Revenue** : all the sources of income of the government

|                        |   |   |
|------------------------|---|---|
| <b>Tax</b>             | : | a compulsory levy   |
| <b>Non Tax Revenue</b> | : | all sources of income other than tax e.g. fee, fines, stamp duty etc. |
| <b>WTO</b>             | : | World Trade Organisation  |

### 5.11 Suggested Readings

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## UNIT –VI

### STRUCTURE OF NORTH EAST ECONOMY

#### Structure

- 6.0 Introduction
- 6.1 Unit objectives
- 6.2 North East Economy: An overview
- 6.3 Basic Features of North East Economy
- 6.4 Relative Performance of North East Economy
- 6.5 Economic Performance of the Region
- 6.6 Level and Growth of NSDP and per-capita NSDP
- 6.7 Changing Sectoral composition of state income and Sectoral Contribution to the Growth of Income with respect to Arunachal Economy.
- 6.8 Natural Resource Base-Land, Mineral, Water, food
- 6.9 Status of Human Development in N.E. India
- 6.10 Summary
- 6.11 Key Words
- 6.12 Check your progress
- 6.13 Question and Exercise
- 6.14 Further Readings

#### 6.0. Introduction

In this unit you will learn about the economy of North East India. This region constitutes eight states like Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. The region constitutes around 7.9 percent of the total area of the country but it contains only 3.8 percent of population of the country as per 2011 census. Topographically the region is a mixture of hills and plains while Arunachal Pradesh, Meghalaya, Mizoram, Nagaland and Sikkim are almost entirely hilly. On the other hand, Assam is basically a plain area. At the same time Manipur and Tripura have both plain areas and hilly tracts. Wide variation in altitude coupled with abundance of rainfall has given rise to wide variations in climatic conditions within the region. This in turn has endowed the region with rich biodiversity. The richness of biodiversity of the region is almost matched by its ethnic diversity. The coexistence of the diversity of physical and culture development is to be normally found in the organisation of economic life of the people of the region. However all the states in this region are an interdependent economic system, both for historical and

geo-political reasons. The North Eastern Council (NEC) which was set up in 1971 was the result of the recognition of this economic interdependence. At the same time the region has been facing various challenges towards all-round development. These challenges cut across the spheres of economy, society and polity. This unit / module will focus on the characteristics of North-East economy, its economic system, the relative economic performance of states of the region as well as the natural resource base and status of the human development etc.

## 6.1 Objectives

After reading this unit you will be able to know:

- An overview of North East economy.
- Basic features of North East economy.
- Relative economic performance of the North Eastern Region and its constituent status in the country.
- Its structural transformation of Arunachal economy.
- Natural Resource Base of North Eastern Region.

Status of Human development of North Eastern Region.

## 6.2. North East Economy – An Overview

A brief introspection of the evolution of the region and its economy in decades after independence may serve as a very useful reference in analyzing the impact of the more recent events such as the liberalization process set in motion in 1991.

In August 1947, when India attained independence from the British rule, the North Eastern Region consisted of three broad administrative units. For example, Manipur and Tripura were the two princely States and the rest of the region was Undivided Assam province. The administrative arrangement throughout the then Assam province was not uniform. While the plain areas were under effective administration of the provisional government. The tribals inhabited in hill areas were left out of administration. Indeed the hill areas were classified as ‘excluded’ or ‘partially excluded’ areas. Shifting or ‘Jhum’ cultivation based, self-contained village, was the typical organization of economic life of the hill tribes. On the other hand, the population of the plains of Assam, Manipur and Tripura

were by and large dependent on agriculture. However, in contrast to the hills, the people in the plains practised settled cultivation with rice as the main crop. The Assam plains had a significant modern non-agricultural sector, which was developed during the British Raj by foreign capitalists for the purpose of colonial exploitation of the region's rich natural resources. This sector consisted of tea industry based on plantation, mining of coal and oil and oil refining based on minerals, plywood industry etc.

The development in many states of North East India is a post independence phenomenon since the process of political and administrative reorganization of the region began only after independence. The constitutional provisions, such as district councils for integrating erstwhile excluded and partially excluded areas did not lead to desired levels of development and fulfill the aspirations of the newly emerging political leadership of many of the hill tribes inhabiting those areas. Consequently, the movement for greater autonomy, separate statehood soon came up. The central Government responded to some of these movements by effecting several rounds of political reorganization of the region, which resulted in the emergence of the present set-up of seven full fledged states. Sikkim which was annexed in 1975 was included in the region in the nineties.

Thus, there emerged a large number of structurally similar but semi-insular traditional economies into a single economic system i.e. North East economy. This is the economic manifestation of a political process. This political process, evolutionary in nature and democratic in operation, integrated not only a large number of tribes and sub-tribes inhabiting the region, but also integrated them into the plain areas of the region.

### **6.3. Basic Features of the North-East Economy**

We have equipped ourselves with the introspection of the evolution of North-Eastern region and its economy and we can now have a brief glimpse of the basic characteristic features of North East Economy. These are as follows:

**a). Large Incidence of International Border:** The region consists of 7.9 percent of total geographical area of the country but it contains more than 20 percent of international border of the country. In fact, all the states of North East India have international border. The large international border isolated the region geo-politically. It was left with over 4500 km of external frontier with Bhutan, China, Myanmar and Bangladesh but no more than a slender 22 km connection with the India mainland. The net effect of all this is the weakening of the market linkages of the region with the rest of the country.

**b). Rapid Growth of Population:** One of the basic features of the region is the rapid growth of population in these areas. From the census data of different decades, it is found that the region's growth rate of population is much higher than that of India. One of the reasons for the rapid growth of population is immigration. The population influx from across the border has largely impacted not only the demographic composition of the region but also their polity and economies leading to a prolonged disturbed situation in several parts of the region. This, in turn, has vitiated its environment for investment and growth.

**c). Frequent Occurrence of Natural Calamities:** Another important feature of the region is the frequent occurrence of natural calamities like flood, landslides etc. The region consists of 7.9 percent of total area of the country but it also contains around 18 percent of total flood prone areas of the country. The reasons for frequent occurrence of landslide in hilly areas, and floods in plain areas of the region, is that of deforestation with high intensity of rainfall in upstream leading to increased surface water runoff, and soil erosion. On the other hand, high soil erosion in upstream leads to greater sedimentation in downstream, which causes the rise in river bed and therefore to higher incidence of bank erosion and floods. Frequent occurrence of flood and erosion continue to be the major obstacles towards development of an agrarian economy of the region.

**d). Infrastructural Deficiency:** There is a broad consensus that the North East lacks the basic minimum physical, social and administrative infrastructure for development of the region. Physical infrastructure such as transport and communication, power, irrigation and market access are grossly inadequate to generate a dynamic growth process. Road is the basic means of communication in North East India. However, the average road density in the region is much lower than that of the country. Another important observation is that surface road as a percentage of road length is only around 30 percent. However, the most important feature is that most of the States of the region do not have lateral road communication. The remoteness and terrain involves large unit cost as well as maintenance cost. According to one estimate, the cost of construction of one km of road in hilly areas of the region is five times higher than that in the plains, (Sarma, 2018). Thus, the infrastructural deficiency which has become an inherent feature of the North East has contributed to low productivity and growth in different sectors of the economy of the region.

**e). Unharnessed Resource Endowments:** It is a well known fact that North East India is a highly natural resource endowed region. For example, the region consists of 7.9 percent of total area of the country, but it contains around 25 percent of total forests of the country. According to one estimate, the region also has hydropower generation potentials of 57,000



MW i.e. 60 percent of the country's total potentials. The North East is also endowed with mineral resources like petroleum, and natural gas, limestone etc. Thus, the per capita availability of natural resources in the region is one of the highest in India but the region is lags behind in industrial growth and overall economic development. Thus, the case of North East amply clarifies that the availability of natural resources does not necessarily lead to industrialization of the location. In contrast, States like Gujarat, is not as richly endowed with natural resources but has prospered as location of industries.

**f). Lack of Industrialization:** The process of industrialization in Assam started quite early i.e. more than one century back. For example, crude oil production and its refining, as well as tea plantation and plywood industry, are a few old resource based modern industries of the region. However, both oil and tea industries have not induced any industrial growth based on their backward and forward linkages. This is supported by the fact that contribution of industrial sector to the region's GDP is less than 10 percent. In some hilly states like Arunachal Pradesh it is even less than five percent. Till the nineties, in the hilly states, there were a good number of wood-based industries, but the Supreme Court's restriction on felling of trees led to the closure of these industries.

**g). Imperfection in Factor Markets:** In the North Eastern States, the factor markets are working to their disadvantage. For example, the absence of land market particularly in the hilly states act as a serious impediment to investment. The labour market has also been largely distorted by heavy population influx. The credit market started growing in the seventies in many hilly states but the legal framework regulating the credit is yet to be institutionalized.

**h). Dependence on Common Property Resources:** A feature which distinguished many hilly states of North East India from many other, is the dependence on common property resources (CPRs) mainly forests. For example, many studies in the past showed that in several areas around 30 percent of consumption expenditure of the households were derived from CPRs. The dependence was very high in the past but in recent years it has declined owing to shrinking of the CPRs. Two factors led to the decline of CPRs. One is the establishment of individual property rights and the other is rapid deforestation in the region.

#### **6.4 Relative Performance of North East Economy / Economic Performance of the Region.**

The per capita income (PCI) or per capita NSDP is regarded as a relatively good measure of economic condition performance of a region / State. A region / State with a high

PCI is considered as rich. On the other hand if the level of PCI is low, it is considered as poor. However, the question of high or low comes in two ways (i) comparison of region's PCI with Nation's PCI and comparison of different states of the region. (ii) comparison of present PCI of the region / State with those in the past.

In order to examine the relative performance of North Eastern Region, the percentage ratios of per capita NSDP of the region and its constituent states to PCI of the country was calculated for four decades, depending on the availability of data. The details are furnished in table 6.1.

**Table 6.1**  
**Per Capita NSDP at Current Prices of North Eastern States as Percentage of India's NNP Per Capita at Current Prices**

| Year    | Arunachal Pradesh | Assam | Manipur | Meghalaya | Mizoram | Nagaland | Tripura | Sikkim | NE    |
|---------|-------------------|-------|---------|-----------|---------|----------|---------|--------|-------|
| 1980-81 | 96.37             | 78.77 | 87.05   | 83.49     | 79.07   | 88.83    | 80.18   | NA     | 80.38 |
| 1990-91 | 108.31            | 85.91 | 79.79   | 87.8      | 89.79   | 98.33    | 67.63   | NA     | 85.23 |
| 2000-01 | 87.19             | 61.04 | 76.75   | 78.49     | 95.41   | 80.6     | 85.88   | 95.28  | 68.51 |
| 2010-11 | 112.84            | 61.24 | 52.46   | 81.01     | 94.32   | 102.88   | 85.24   | 201.72 | 98.96 |

Source: 1. Handbook of Statistics of Indian Economy, Reserve Bank of India

2. Economic Survey of India from various issues.

Note: The regional NDP per capita has been estimated as the weighted average of NDP per capita of the seven states with respective population shares as the weights.

From table 1.1, it is clear that throughout the entire period NDP per capita of the region remained below India's per capita income. In fact immediately after the post reforms period i.e. during 1990-91 and 2000-01 the gap has widened from 85.23 percent in 1990-91 to 68.51 percent in 2000-01. However, the gap is drastically reduced in 2010-11 due to rapid increase of per capita NSDP of Sikkim, Nagaland and Arunachal Pradesh. The regional trend is shared by more populous State of Assam, Manipur and Tripura in the region. However, in contrast to broad regional trends, in Arunachal Pradesh, Nagaland and the per capita NSDP had crossed or nearer two India's NNP per capita in eighties and generally remained nearer to India's figure in the following decades. On the other hand, Sikkim's per capita NSDP is more than double than that of the country in 2010-11.

The analysis of growth in terms of per capita income has its usefulness. However, in that analysis the picture of growth trends across states gets somewhat clouded because the population growth rates in the different States in the region have been quite uneven in the recent decades. In order to capture the relative performance of the States in the region purely in terms of economic growth, the available NSDP figure at current prices of the region and its constituent states have been expressed as percentage of India's NSDP at current prices. These ratios approximately show the percentage shares of the North Eastern states in India's national income. The trend in the ratios is shown in table 6.2. To summarize the trends annual

compound growth rates in these shares over the entire period 1980-81 to 2000-01 have been estimated.

**Table 6.2**  
**Trends in the Percentage Shares of North Eastern States in India's National Income at current Prices**

| Year                            | Arunachal Pradesh | Assam  | Manipur | Meghalaya | Mizoram | Nagaland | Tripura | Sikkim | NE     |
|---------------------------------|-------------------|--------|---------|-----------|---------|----------|---------|--------|--------|
| 1980-81                         | 0.08              | 1.94   | 0.17    | 0.15      | 0.05    | 0.09     | 0.22    | NA     | 2.71   |
| 1990-91                         | 0.1               | 2.11   | 0.17    | 0.17      | 0.07    | 0.13     | 0.2     | NA     | 2.94   |
| 2000-01                         | 0.09              | 1.58   | 0.15    | 0.19      | 0.05    | 0.09     | 0.25    | 0.06   | 2.52   |
| 2010-11                         | 0.12              | 1.56   | 0.12    | 0.19      | 0.08    | 0.16     | 0.25    | 0.1    | 2.61   |
| *Annual Compound Growth Rate(%) | 0.115             | -1.799 | -0.546  | 1.152     | 2.748   | 3.471    | 0.378   | -      | -0.898 |

Note:\* The annual compound rate has been taken to be the parameter b in the equation In

$Y=a+bt$  where Y is share in India's NNP and t is time going from 1980-81 to 2000-2001.

Sources: 1. Handbook of Statistics of Indian Economy, RBI  
2. Economic Survey of India from various issues.

The trends in share of the North East states in India's national income revealed roughly the same story as trends in the ratios of per capita income. For the region as a whole the share had improved initially during 1981-91 but declined during 1991-2001 and again marginally improved during 2001-2011. Among the states, Assam and Manipur had a constant decline after 1990-91. However, Tripura and Meghalaya improved its shares in India's national income. For states like Arunachal Pradesh, Sikkim, Mizoram and Nagaland, there was significant improvement in their shares between 2000-01 to 2010-11.

Thus, the region, in general and the States like Assam and Manipur, in particular clearly left behind in this period of accelerated economic growth of the country. The smaller states (in terms of population) like Arunachal Pradesh, Sikkim, Nagaland and Mizoram have excelled by growing even faster than the country in terms of per capita income. Meghalaya and Tripura have not done badly in terms of purely economic growth, though these two states have not succeeded to imparting their relative position in terms of per capita income. However, a more detailed enquiry into the source of prosperity of these smaller states reveals that their impressive growth performance has not gone hand in hand with rapid development of their economies. The high growth rates are not propelled by growth of agriculture or manufacturing or even by trade and commerce but by expansion of such activities as public administration and construction. It was financed by liberal fiscal transfers from the centre to

those special category states. Such high growth rates, unless stimulated by genuine economic rules are unlikely to be sustainable for long.

### **6.5. Level and Growth of NSDP and per capita NSDP of Arunachal Pradesh**

So far we touched the concepts of NSDP and per capita NSDP, in analysing the performance of North East economy. Let us now discuss the level and growth of NSDP and per capita NSDP of Arunachal Pradesh. Before coming for discussion, let have a glance of Arunachal economy. Arunachal Pradesh the then North East Frontier Agency (NEFA) started the journey to development only after independence of the country. Prior to the independence of the country no modern developmental process was initiated. In fact, at time of independence, Arunachal economy was basically a mono-economy characterized by subsistence agriculture and a few cottage industries. After independence the Government of India took steps to start developmental programmes and in 1953 NEFA was brought under First Five Year Plan. In the fifties, the Government of India followed a policy of least intervention with regard to socio-political autonomy, a revivalist approach towards tribal customs and traditions and a protectionist welfare approach towards economic development of the states popularly known as Nehru-Elwin policy of tribal development. However, this policy of development was shifted to the policy of progressive integration since Indo-Chinese border conflict in 1962 i.e. at the beginning of Third Five Year Plan. In order to make forthcoming plans fruitful, the National Council of Applied Economic Research (NCAER) was requested in 1964 to undertake a techno-economic survey of the territory and to recommend suitable programmes to be undertaken. The report was published in 1967 and development of physical infrastructural facilities, industrialization and modernization were the ingredients of the policy suggested in the report. Thus, the actual process of economic development was started in the territory from the seventies only. Although the first population census was conducted in the territory in 1961 but reliable economic data was available from 1971 only. Hence our analysis of level and growth of NSDP and per capita NSDP of the States will be limited from seventies only. The level of per capita income of Arunachal Pradesh as compared to India's, per capita NNP was furnished in table 6.3.

**Table 6.3**  
**Level of Per Capita NSDP of Arunachal Pradesh with Per Capita NNP of India at Constant Price**

| Period  | Per Capita NSDP (In Rupees) | Per Capita NNP (In Rupees) | Percentage |
|---------|-----------------------------|----------------------------|------------|
| 1970-71 | 2843                        | 5002                       | 56.9       |
| 1980-81 | 4010                        | 5342                       | 75.0       |
| 1990-91 | 6939                        | 7321                       | 94.8       |
| 1993-94 | 8866                        | 7690                       | 115.3      |
| 2000-01 | 9171                        | 10308                      | 89.0       |
| 2004-05 | 9427                        | 11799                      | 79.9       |

Source: (1) Estimates of State Domestic Product of Arunachal Pradesh, Different Years,

(1) Directorate of Economics and Statistics, Government of Arunachal Pradesh, Itanagar.

(2) Economic Survey 2004-05, Government of India, New Delhi.

Table 6.3 shows that in 1970-71, Arunachal per capita income was only 56.9 percent of India's per capita income. In 1980-81, Arunachal's per capita increased by around 75 percent as compared to that of India's per income by only 3.40 percentage during period and as a result Arunachal's per capita income became 75 per cent of India's per capita income. During eighties, India's per capita income increased by 73 percent income but Arunachal's per capita income increased by 77 per cent and as a result in 1990-91, Arunachal's per capita income became 94.8 percent of India's per capita income. In 1993-94 Arunachal's per capita income became 15.3 percent higher than that of India's per capita income. After 1993-94 the Arunachal economy slowed down relative to Indian economy and this was reflected in declining relative position of Arunachal's per capita NSDP. For example in 2004-05, Arunachal's per capita income become 79.9 per cent lower than that of India's per capita income.

The growth rate of per capita NSDP is the difference between the rates of growth of NSDP are rate of growth of population. Table 6.4 shows the growth of NSDP and per capita NSDP as compared with those of India.

**Table: 6.4**  
**Growth Rate of NSDP of Arunachal Pradesh as Compared with the Growth Rate of India (Percent per Annum)**

| Period    | Arunachal Pradesh |                 | India |                |
|-----------|-------------------|-----------------|-------|----------------|
|           | NSDP              | Per Capita NSDP | NNP   | Per Capita NNP |
| 1971-1980 | 7.07              | 4.14            | 3.36  | 1.1            |
| 1981-1990 | 7.81              | 4.69            | 4.99  | 2.83           |
| 1991-2000 | 4.81              | 2.4             | 5.93  | 3.95           |
| 2001-2004 | 2.79              | 0.4             | 6.01  | 4.29           |

Note: Growth rate is the estimated value of b in  $\log Y = a + bt$ , expressed in their percentage, Y is NSDP or NNP and per capita values and t is time measured in years.

Source: (1) Estimates of State Domestic Product of Arunachal Pradesh, Different Years, and Directorate of Economics and Statistics, Government of Arunachal Pradesh, Itanagar.

(2) Economic Survey 2004-05, Government of India, New Delhi.

Table 6.4 shows that in the seventies, the Arunachal economy performed very efficiently. Its growth rate was above the national average. NSDP grew at the rate of 7.07 percent per annum during the period against the growth of national income at 3.36 per cent. However, due to rapid growth of population, Arunachal's per capita income grew only at 4.14 percent against the 1.10 percent growth of per capita National income. In the eighties, both Arunachal and Indian economy moved forward but Arunachal economy was ahead of the National. However, the situation was different during the nineties onwards. The growth rates of both national income and per capita national income were much higher than those in Arunachal Pradesh.

## **6.6 Changing Sectoral Composition in State Income and Sectoral Contribution to the Growth of Income.**

The sectoral composition of income in Arunachal over the period 1970-71 to 2009-10 shows a sharp decline in the share of the primary sector and a big increase in the share of services sector. In recent years, the service sector in Arunachal Pradesh has come to occupy a predominant position in the state's income, a position that is higher than agriculture, the traditional occupation of the people. For example, in 2009-10 the contribution of services sector was 43.98 percent which was 13.28 per cent higher than that of primary sector. The details are furnished in Table 6.5.

**Table 6.5**  
**Changes in Sectoral composition of Net State Domestic Product in Arunachal Pradesh: 1970-71 to 2009-10**  
**(Percentage)**

| Sl. No. | Sub-Sectors and Sectors                               | 1970-71 | 1980-81 | 1990-91 | 2003-04 | 2009-10 | Changes during 1970-2010 |
|---------|---|---------|---------|---------|---------|---------|--------------------------|
| 1       | Agriculture and Sectors                               | 38.33   | 36.91   | 35.09   | 27.43   | 28.7    | -9.63                    |
| 2       | Forestry and logging                                  | 20.72   | 10.23   | 9.59    | 3.73    | 13.99   | -6.73                    |
| 3       | Fishing   | 0.04    | 0.08    | 0.72    | 1.07    | 0.35    | 0.31                     |
| 4       | Mining and Quarrying                                  | 0.1     | 0.06    | 0.79    | 1.41    | 2.04    | 1.94                     |
|         | Primary Sector  | 59.19   | 47.28   | 46.19   | 33.64   | 30.74   | -28.45                   |
| 5       | Manufacturing   | 0.85    | 6.51    | 6.64    | 2.49    | 2.32    | 1.47                     |
| 6       | Construction  | 19.58   | 18.69   | 17.98   | 17.9    | 18.58   | -1                       |
| 7       | Electricity, gas and Water                            | -0.1    | -2.99   | -2.46   | -0.25   | 4.36    | 4.46                     |
|         | Secondary Sector                                      | 20.33   | 22.21   | 21.36   | 20.64   | 25.27   | 4.94                     |
| 8       | Transport, Storage and Communication                  | 1.55    | 0.36    | 0.65    | 7.16    | 3.9     | 2.35                     |
| 9       | Trade, Hotel & Restaurants                            | 1.96    | 4.42    | 4.95    | 4.82    | 3.93    | 1.97                     |
| 10      | Banking & Insurance                                   | 0.1     | 0.6     | 1.49    | 2.93    | 3.7     | 3.6                      |
| 11      | Real Estate, Ownership of Dwelling & Business Service | 0.79    | 7.79    | 5.29    | 2.31    | 2.67    | 1.88                     |
| 12      | Public Administration                                 | 9.98    | 10.36   | 8.16    | 17.79   | 14.86   | 4.88                     |
| 13      | Other Sector  | 6.1     | 6.98    | 11.71   | 11.21   | 14.92   | 8.82                     |
|         | Tertiary Sector                                       | 20.48   | 30.51   | 32.25   | 46.22   | 43.98   | 23.5                     |
|         | Net State Domestic Product                            | 100     | 100     | 100     | 100     | 100     | 0                        |

*Source: Calculated on the data from estimates of State Domestic Product of Arunachal Pradesh, Different years, Directorate of Economics and Statistics, Government of Arunachal Pradesh, Itanagar*

Table 6.5 shows that Arunachal economy experienced a significant structural transformation. In 1970-71, the primary sector was the most important sector in the economy. Its contribution to NSDP was as high as 59.19 per cent. During last forty years (1970-71 to 2009-10) its contribution sharply and steadily declined. In 2009-10, the contribution of primary sector declined by 28.45 percentage points as compared to 1970-71. The decline in primary sector was not translated into rise of the secondary sector. Its relative contribution remained the same and its position was marginally improved in 2009-10. However the figure is misleading, the major contribution of the secondary sector came from construction. The contribution from manufacturing sector was reducing after 1990-91 and it stood only 2.32 percent 2009-10. It was finding that the decline in primary sector was compensated by rapid growth of services sector. Infact the share increased from 20.48 percent in 1970-71 to 43.98 percent in 2009-10. This happened basically data rapid six in share of public administration and other sectors.

If we briefly look into the sectoral contribution to the growth of income, it was found from Human Development Report of Arunachal Pradesh, 2005 that during 1970-71 to 2001-02, agriculture contributed more prolifically to the growth of Arunachal economy than any other service. Though the growth of agriculture was net very high as compared to other sectors, yet the size of the sector has meant a substantial contribution during the period. Agriculture accounted for 35.97 per cent of Arunachal's NSDP and 32.08 per cent of Arunachal economic growth come from agriculture. Infact, the primary sector as a whole is responsible for 39.92 per cent of economic growth during the period. The overall contribution of the secondary sector was 21.98 per cent of the state's economic growth. The remaining 38.30 percent came from services sector. In this sector, public administration formed the largest sub sector and it formed 11.15 per cent growth of NSDP of the State.

### 6.7 Natural Resource Base – Land, Mineral Water and Forest.

(a) **Land:** Land is an important natural resource. However, most of the North Eastern states are land – scarce economies, though the total geographical area is large. The density of population ranges from 17 persons per square km (Arunachal Pradesh) to 397 (Assam) in 2011. In fact, the density of population in North Eastern states except for Assam is less than the national average. However, in the states like Arunachal Pradesh, Manipur, Meghalaya, Mizoram and Nagaland, the hilly terrain constitutes more than 90 percent of the total geographical area and thus the plain land available for cultivation is around 5 percent only. We may have an idea of agricultural land resources of the North East region from Table 1.6.

**Table 6.6**  
**Land Availabilities in North – Eastern Region 2010-11**

| State             | Geographical Area<br>in hectare | Net Sown Area<br>(000 ha) | Per Capita Net<br>Shown Area (ha) | Per cent of Net<br>Sown Area to<br>Geographical Area |
|-------------------|---------------------------------|---------------------------|-----------------------------------|--|
| Arunachal Pradesh | 8,374,300                       | 212000                    | 0.15                              | 2.53   |
| Assam             | 7,843,800                       | 2,811,000                 | 0.09                              | 35.84  |
| Manipur           | 2,232,700                       | 233000                    | 0.09                              | 10.44  |
| Meghalaya         | 2,242,900                       | 283000                    | 0.10                              | 12.62  |
| Mizoram           | 2,108,100                       | 361000                    | 0.33                              | 17.12  |
| Nagaland          | 1,657,900                       | 123000                    | 0.06                              | 7.42   |
| Sikkim            | 709,600                         | 77000                     | 0.13                              | 10.85  |
| Tripura           | 1,048,600                       | 280000                    | 0.08                              | 26.70  |
| NER               | 26,217,900                      | 1,178,000                 | 0.03                              | 14.49  |

Source: *Basic Statistics of NER, 2015*



Table 6.6 shows that contrary to common belief, as far as agriculture land is concerned, the region does not enjoy special advantage as compared to the rest of India. The per capita net sown area is low in all the state of North-East India in spite of low population base. As far as percent of net sown area to total geographical is concerned, in some states like Arunachal Pradesh and Nagaland, it is as low as 2.53 percent and 7.42 percent respectively. On the whole, the region's net sown area constitutes only 14.49 percent of its geographical area which is much lower than the national average.

**(b) Mineral Resources:** The North Eastern Region is rich in mineral resources. The most important resources are crude oil and natural gas. If properly utilized, these resources may prove the path of rapid industrialization in the region. Coal, limestone, chromites etc. also offer good scope for mineral based industrialization of the region. Table 1.7 provides the availability of major minerals of the different states of North East India in terms of quantity and approximate money value.

**Table – 6.7**  
**Production of Minerals and Ores in NER 2011-12**

| State             | All Mineral Value | Fuel                   |                |             |                |                        |                |             | Non-Metallic Minerals  |                |                              |
|-------------------|-------------------|------------------------|----------------|-------------|----------------|------------------------|----------------|-------------|------------------------|----------------|------------------------------|
|                   |                   | Coal                   |                | Natural Gas |                | Petroleum (Crude)      |                | Total Value | Limestone              |                | Minor Mineral value (rupees) |
|                   |                   | Quantity (000, tonnes) | Value (rupees) | Quantity    | Value (rupees) | Quantity (000, tonnes) | Value (rupees) |             | Quantity (000, tonnes) | Value (rupees) |                              |
| Arunachal Pradesh | 3874605           | 221                    | 1464100        | 40          | 256040         | 118                    | 2154465        | 3874605     | 0                      | 0              | 201                          |
| Assam             | 114390160         | 602                    | 3988000        | 2905        | 18594905       | 5025                   | 91747355       | 114330260   | 242                    | 59900          | 1523                         |
| Manipur           | 0                 | 0                      | 0              | 0           | 0              | 0                      | 0              | 0           | 0                      | 0              | 270986                       |
| Meghalaya         | 49172145          | 7206                   | 47739800       | 0           | 0              | 0                      | 0              | 47739800    | 3606                   | 1427008        | 2866                         |
| Mizoram           | 0                 | 0                      | 0              | 0           | 0              | 0                      | 0              | 0           | 0                      | 0              | 72075                        |
| Nagaland          | 0                 | 0                      | 0              | 0           | 0              | 0                      | 0              | 0           | 0                      | 0              | 1711                         |
| Sikkim            | 0                 | 0                      | 0              | 0           | 0              | 0                      | 0              | 0           | 0                      | 0              | 1774                         |
| Tripura           | 4122244           | 0                      | 0              | 644         | 4122244        | 0                      | 0              | 4122244     | 0                      | 0              | 18787                        |
| NER Total         | 171559154         | 8029                   | 53191900       | 3589        | 22973189       | 5143                   | 93901820       | 170066909   | 3848                   | 1486908        | 10634                        |

Source: Basic Statistics NER, 2015.

From table 6.7 it is found that in terms of production of mineral value, Assam tops the list (66.67 percent) followed by Meghalaya (28.67 percent). The rest belongs to Tripura and Arunachal Pradesh. The four states like Manipur, Mizoram, Nagaland and Sikkim do not

have much minerals for economic use. However the region as a whole is rich in mineral resources. Hence, attempts may be made to examine the economic feasibility for their exploitation. In fact, an integrated approach is necessary for long term sustainability, keeping in view the diverse needs of socio-economic activities and environmental preservation.

(c) **Water:** The North Eastern Region of India is very rich in terms of many rivers, streams, floodplain wetlands etc. The rivers Brahmaputra and Barak form the principal drainage of the region with its numerous tributaries flowing through the different states. In fact, the region consists of only 7.9 percent of total geographical area of the country but it contains 9.58 percent of rivers and canals, and 19.42 percent of floodplain lakes etc. The large river systems in the region along with structure of land forms provides ideal condition for generation of hydro power. The status of major hydro power development in the region is furnished in table 1.8.

**Table 6.8**  
**Status of Hydro Electric Potential Development in North Eastern Region, 2019**

|   | Region/<br>States  | Identified<br>Capacity<br>MW | Capacity in<br>Operation<br>(percentage) | Capacity under<br>Construction<br>(percentage) | Capacity yet to be Taken up<br>under Construction<br>(percentage) |
|---|--------------------|------------------------------|--|--|---|
| 1 | Arunachal Pradesh  | 50328                        | 1.03                                     | 5.19   | 93.78   |
| 2 | Assam              | 680                          | 53.85                                    | 0  | 46.15   |
| 3 | Manipur            | 1784                         | 5.96                                     | 0  | 94.04   |
| 4 | Meghalaya          | 2394                         | 14.01                                    | 0  | 85.99   |
| 5 | Mizoram            | 2196                         | 2.82                                     | 0  | 97.18   |
| 6 | Nagaland           | 1574                         | 5.17                                     | 0  | 94.83   |
| 7 | Tripura            | 15                           | 0  | 0  | 0   |
|   | Sub Total<br>(NER) | 58971                        | 2.45                                     | 4.46   | 93.1  |
|   | All INDIA          | 148701                       | 27.95                                    | 7.45   | 64.6  |

Source: Ministry of Power, Government of India, 2019

Table 6.8 shows that North Eastern Region has around 40 percent identified hydro power generator capacity of India and among the states of North East India; Arunachal Pradesh has the highest potential i.e. around 85 percent of the region's identified capacity. However as far the utilization of hydro power is concerned, the region is able to use only 2.45 percent of identified capacity and 4.46 percent is under construction. Assam is the only state which is able to use more than 50 percent of its identified capacity. On the other hand Arunachal Pradesh has the highest potentials but it is able to use only 1.03 percent of identified capacity.

**Forests:** Forests are the most important natural resource of the region and they play an important role in the economic life of the indigenous people of the hilly areas of the region. For example, the region consists of around 7.9 percent of total area of the country but it contains around 25 percent of total forests in India. The coverage of forest area in the region as per data based on satellite imagery is given in table 1.9.

**Table 6.9**  
**Coverage of Actual Forest Area of the North-Eastern Region, 2015 (In Percentage)**

| State             | Dense Forest | Open Forest | Total |
|-------------------|--------------|-------------|-------|
| Arunachal Pradesh | 77.17        | 22.83       | 79.96 |
| Assam             | 46.21        | 53.78       | 35.83 |
| Manipur           | 42.76        | 57.24       | 77.69 |
| Meghalaya         | 57.38        | 42.62       | 76.45 |
| Mizoram           | 32.95        | 67.05       | 86.27 |
| Nagaland          | 46.73        | 53.03       | 75.33 |
| Sikkim            | 79.43        | 20.52       | 47.13 |
| Tripura           | 76.39        | 23.61       | 73.68 |
| NER               | 59.74        | 40.26       | 65.34 |

*Source: Basic Statistics of NER, 2015*

Table 6.9 shows that around 65.34 percent of total geographical area of the region is covered under forests. Among the constituent States, Mizoram (86.27 percent) has the highest coverage followed by Arunachal Pradesh (79.96 percent). On the other hand, Assam has 35.84 percent of its geographical area under forests.

If we take its account only dense forests of good commercial value and ecological importance, it is only Arunachal Pradesh which can boast of really rich forest resources having 77.17 percent of the total forests is under dense forests. In other States, major part of the forest areas belong to the ordinary category consisting of degraded forests. The fact is that a significant forest area in hilly states being degenerated implies that on the one hand these are not available for settled agriculture and on the other hand, they do not yield much income or flow of economic benefits to the region.

## **6.8. Status of Human Development in North East India**

The concept of development has been changing over a period of time. The link between economic growth and development was a subject of global discussion during second half of 20<sup>th</sup> century. By the early 1960s, economic growth has emerged as the goal as well as indicator of progress in many countries. The process of development as the World Bank defines aims at raising the income and average material well being of the people of a country.

The concept of human development has evolved from the development debate in the 1970s and 1980s. The increasing visibility and growing popularity of the concept of human development has created an entirely new paradigm of public policy making particularly in developing countries. Human development is not just another dimension of development, it is altogether a new perspective and a revolutionary way to recast own conventional approach to development. What is 'new' in this approach to development is that the focus is on human beings and not just on the economy. Thus, Human development model enacts a radical shift of focus from the basket of the goods and services approach to human beings and their choice sets, their freedoms and especially in shaping their capability and well being (UNDP, 1990). Thus, the human development index (HDI) is basically a composite index based on three dimensions of human development i.e. income health and education and the HDI puts equal emphasis on all the three dimensions of development.

With this background an attempt was made to examine the status of human development of North Eastern States in India over a time period of around two decades. This is furnished in table 1.10.

**Table 6.10**  
**HDI of North Eastern States and India in 2000 and 2017**

| State/ Country    | HDI 2000 |               |                    | HDI 2017 |               |                    |
|-------------------|----------|---------------|--------------------|----------|---------------|--------------------|
|                   | Value    | Rank in India | Rank in North-East | Value    | Rank in India | Rank in North-East |
| Arunachal Pradesh | 0.561    | 17            | 5                  | 0.658    | 24            | 5                  |
| Assam             | 0.453    | 23            | 8                  | 0.605    | 30            | 8                  |
| Manipur           | 0.525    | 10            | 3                  | 0.695    | 15            | 3                  |
| Meghalaya         | 0.470    | 19            | 7                  | 0.650    | 26            | 7                  |
| Mizoram           | 0.532    | 8             | 2                  | 0.697    | 14            | 2                  |
| Nagaland          | 0.524    | 14            | 4                  | 0.676    | 20            | 4                  |
| Sikkim            | 0.515    | 5             | 1                  | 0.716    | 10            | 1                  |
| Tripura           | 0.532    | 18            | 6                  | 0.655    | 25            | 6                  |
| India             | 0.493    | 130           | -                  | 0.640    | 131           | -                  |

*Source:* National Human Development Index, 2001 and 2018.

Table 6.10 reflects that there are wide variations of HDI among the states of North East India. For example, in 2000 there are three states like Sikkim, Mizoram and Manipur which were within top ten ranked states of India in terms of HDI. This is basically due to high per capita income and high literary rate of these three states. At the same time there are three states like Assam, Tripura and Arunachal Pradesh which are in the bottom segment. After a gap of 17 years, i.e. 2017, it was found that there is no doubt of improvement of absolute value of HDI of all the states of North East but their relative ranks among the states of India has fallen sharply. For example, in 2017, there is only one state i.e. Sikkim which is among the top ten

ranked states of India. In facts, Sikkim is able to keep its position because of steady rise in per capita income and significant improvement of social sector. On the other hand most of the states of North East are in bottom segment in 2017. For example, five of the states of North East like Nagaland, Arunachal Pradesh, Tripura, Meghalaya and Assam were ranked 20 and above among 29 states of India while the other two Manipur and Mizoram were in range of 14 to 19 category. The most important thing to observe is that the rank of all states of North East India in human development attainment deteriorated hugely between 2000 and 2017, obviously deteriorating HDI suggests falling social sector outcomes in relative terms.

Let us have a bird's eye view of status of human development in Arunachal Pradesh and its districts. The Department of Economics of Rajiv Gandhi University (formally Arunachal University) prepared the first Human Development Report of the state in collaboration with UNDP and State Government which was published in 2005. The report was based on large scale primary survey in all the districts of the state in order to estimate life expectancy and human poverty. The HDI in Arunachal Pradesh for 2001 was estimated to be 0.515. Of the three indices of HDI, the value of education index was 0.566, the health index was 0.484 and the income index had a value of 0.495. However, the districts of Arunachal Pradesh showed a significant variation in level of HDI. The details are furnished in table 6.11.

**Table – 6.11**  
**The Human Development Index for Arunachal and its districts, 2001**

| Districts/States  | HDI Value | HDI Rank |
|-------------------|-----------|----------|
| Tawang            | 0.555     | 6        |
| West Kameng       | 0.573     | 3        |
| East Kameng       | 0.362     | 13       |
| Papumpare         | 0.573     | 3        |
| Lower Subansiri   | 0.425     | 11       |
| Upper Subansiri   | 0.438     | 10       |
| West Siang        | 0.558     | 5        |
| East Siang        | 0.66      | 1        |
| Upper Siang       | 0.524     | 7        |
| Dibang Valley     | 0.659     | 2        |
| Lohit             | 0.518     | 8        |
| Changlang         | 0.452     | 9        |
| Tirap             | 0.397     | 12       |
| Arunachal Pradesh | 515       | -        |

*Source: Arunachal Pradesh HDR 2005*

Table 6.11 reflects that East Siang district had the first rank with an HDI 0.660. Dibang Valley was ranked second with an HDI value of 0.659. Papumpare, the district in which the state capital located was the third place together with West Kameng. On the other hand East Kameng and Tirap districts were at the bottom as per Human Development Report of Arunachal Pradesh, 2005.

## 6.9: Summary

Our analysis reflects a few points which are as follows:

- North East India is a heterogeneous in terms of physical features, ethnic composition, literary rate, urbanization rate and other demographic features as well as stages of economic development yet the North Eastern states are an inter-dependant economic system.
- The region has a few unique feature like rapid transition of the traditional economies to an integrated market system but with imperfections in factor market.
- In terms of relative economic performance, the North Eastern region is lagging for behind of national economy particularly after economic liberalization. However there are wide variations among the different states of North East India.
- Arunachal economy performed very efficiently in terms of growth of NSDP and per capita NSDP during seventies and eighties. However, the situation was different during nineties.
- With rise in per capita income of Arunachal Pradesh, there is rapid structural transformation of the economy. The services sector in Arunachal Pradesh has come to occupy a predominant position in State's income, a position that is much higher than agriculture, the traditional occupation of the people.
- The North Eastern region is rich in natural resources like land, mineral, water, as well as forests but these resources are not properly used for the economic development of the region.
- The picture of development does not only have brightness, but there are some dark patches as well. For example, most of the states in North East India are ranked low and very low in terms of human development index. What is more important is that their ranks deteriorated over time period 2000-2017.

### 6.10 Key Words:

- **Gross Domestic Product:** The value of final goods and services produced in an economy during a period of time. The economy may relate to a country or a state or a district etc. The period is normally one year.
- **Net Domestic Product (NDP):** When depreciation of capital is deducted from GDP, we have NDP.
- **Gross National Product:** GDP plus net factor income from abroad.
- **Net National Product:** GDP minus depreciation of capital
- **Per capita Income:** NNP divided by population.
- **Structural Transformation of an economy:** This is the changes in the sectoral composition of incomes labour force etc.
- **Shifting cultivation:** It is also known as by other names like swidden or slash and burn cultivation or jhuming or jhum cultivation. This agricultural practice uses the land extensively.

### 6.11: Check Your Progress / Questions

#### I. Short Questions

- i. What are the three broad sectors of an economy?
- ii. Why is service sector more important in Arunachal Pradesh?
- iii. How did the process of development begin in North East India?
- iv. What are the three important features of North East economy?
- v. What are the important renewable natural resources of North East India?
- vi. What do you mean by human development?

#### II Long Questions

- i. Describe an overview of North East economy.
- ii. Discuss the basic features of North East economy.
- iii. Explain the relative economic performance of North Eastern Region and its constituent States.
- iv. Describe the level and growth of NSDP and per capita NSDP of Arunachal Pradesh for three decades.
- v. Discuss changing sectoral contribution to state income and sectoral contribution to growth of income of Arunachal Pradesh.
- vi. Describe briefly the natural resource base of North East India.

- vii. Explain the status of human development in North East India and Arunachal Pradesh.

#### **6.12: Suggested Readings**

- i. Baruah, Alokesh (ed), *India's North East Development Issues in a Historical Perspective*, Manahor Publish, New Delhi, 2005.
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- vi. Roy, N.C. and P.K. Kuri, *Land Reform in Arunachal Pradesh*, Classical Publishing Company, 2001.
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## UNIT-VII

### AGRICULTURE IN NORTHEAST INDIA

#### Structure

- 7.0 Introductions
- 7.1 Objectives
- 7.2 Agricultural Practice in the region: Permanent cultivation, shifting cultivation and its effects, jhum cultivation and the problem of induction of new technology.
- 7.3 Land Tenure and Problem of Agricultural credit
- 7.4 Land Use Pattern and Cropping Pattern in Northeast India
  - 7.4.1 Land Use Pattern in Northeast India
  - 7.4.2 Cropping Pattern in Northeast India
- 7.5 Need for land reform with reference to Arunachal Pradesh
- 7.6 Agricultural Productivity in Northeast India
  - 7.6.1 Causes of Agricultural Low Productivity in Northeast India.
- 7.7 Further Readings

#### 7.0 INTRODUCTION

Agriculture in India is considered to be the backbone of the country and also regarded as the largest sector of the country's economic activity. It is the major sector of the State economy, in which the majority of people earn their livelihood. Though the share of agriculture in the aggregate economy has declined rapidly during the planned development of the country, it assumes a pivotal role in the rural economy. The contributory share of agriculture in GDP has declined from 53.1 per cent in 1950-51 to 13.1 per cent in 2011-12<sup>AE</sup> (Economic Survey 2012-13).

#### 7.1 Objectives

- ❖ Know about the agriculture situation in Northeast India
- ❖ The Extent of Jhum Cultivation and its effects
- ❖ Land Tenure, Land Use Pattern and Cropping Pattern in Northeast India
- ❖ Land Reform in Arunachal Pradesh
- ❖ Agricultural Productivity and the causes of low productivity

## **7.2 Agricultural Practice in the region: Permanent cultivation, shifting cultivation and its effects, jhum cultivation and the problem of induction of new technology.**

The Northeast India comprises of eight states namely Arunachal Pradesh, Assam, Meghalaya, Manipur, Mizoram, Nagaland, Sikkim and Tripura with a total geographical area of 262180 km<sup>2</sup> which is about 8% of the country's total area. It lies between 21.5°N to 29.5° N latitude and 85.5° E to 97.5° E longitude and the majority of the population in the region is predominantly tribal, which mainly dependent on agriculture and land-based activities. Agriculture and allied sector is the major source of livelihood for the majority of the workforce (around 50-70% across the states). The region is characterized with diversified agro-climatic condition, different soil types, and irregular physical features and the region is also lagging behind in development. The agricultural practices of North East India are of two types- (i) Shifting cultivation, and (ii) Settled or plains agriculture. Rice and maize are the leading crops in both hilly regions and plain areas of the region. The modern agricultural inputs which are used in agriculture are comparatively low.

The region is endowed with a varied topography and agro-climatic conditions which offer vast potential for agriculture, horticulture and forestry. However, the region is lagging in agricultural development contrary to the mainland India. The main reasons behind the low level of agriculture development in the region is lack of appropriate strategies for the development of natural resources, inadequate infrastructure facilities and low adoption of improved technology.

### **7.2.1. Shifting Cultivation and its effects, Jhum Cultivation and the problem of induction of new technology**

The shifting cultivation commonly known as Jhumming which is one of the most ancient systems of farming and it is also known as Slash and Burn method of cultivation. On the basis of archaeological evidence and radio-carbon dating, the origin of shifting cultivation could be traced back to about 8000 BC in the Neolithic period which witnessed the remarkable and revolutionary change in man's mode of production of food as from hunter and gatherer he became food producer. Earlier cultivators used fire-stone, axes and hoes, while farmers in the present-day used digging sticks, iron tools, iron digging sticks, daon, hoe and knives. In the tropical rain forest of Central Africa, Central America and Southeast Asia, the shifting cultivation is the primitive form of soil utilization.

Shifting cultivation is known by different names in different parts of the world. It is generally known as 'slash and burn' and 'bush fallow' agriculture. It is termed as Ladcmg in Indonesia, Caingin in Philippines, Milpa in Central America and Mexico, Ray in Vietnam, Conuco in Venezuela, Roca in Brazil, Masole in the Congo and Central Africa. It is also practiced in the highlands of Manchuria, Korea and southwest China. In the hilly states of Northeast India it is commonly known as Jhum Cultivation. In mainland India, it is known by various names such as Podu, Dabi, Koman or Bringa in Orissa, as Kumari in Western Ghats, as Watra in southeast Rajasthan, as Penda, Bewar or Dahia and Deppa or Kumari in the Bastar district of Madhya Pradesh.

Shifting cultivation has been characterized as rotation of fields rather than rotation of crops, absence of draught animals and manuring, use of human labour only, employment of dibble stick or hoe, and short period of occupancy alternating with long fallow periods. When the natural fertility of land gets exhausted after two or three years the fields are abandoned, the cultivators shift to another clearing, leaving the old one for natural recuperation. Thus such practice is known as 'shifting cultivation'.

### **7.2.2 Steps involve in process of jhum cultivation**

- a) Selection of the forested hilly land
- b) Clearing the forest tract by cutting down the jungle and burning the dried forest wood into ashes
- c) Worship and sacrifice
- e) Dibbling and sowing seeds
- f) Weeding and protection of crops
- g) Harvesting and thrashing
- h) Merry making and feasts
- i) Fallowing

The usual process demands the selection of a plot on or near the hill side or jungle. The selection of land is made in the months of December and January. The fertility of the soil is judged by the color and texture of the soil. In some tribes, community as a whole is collectively responsible for the clearing of the selected piece of land while in others the cutting of trees and shrubs is made by the respective family to whom the land has been allotted. The area allotted per family varies between half hectare to one hectare among the different tribes, regions and states. The land is cleared of all its undergrowth and the branches of trees are lopped off. The cleared growth is allowed to dry on the field. This process of

clearing which takes over a month is labour intensive, which are being undertaken with indigenous and primitive equipment's.

The dried growths, as well as the trees standing in the clearance, are set on fire. The cultivators take care that the fire should not spread into the forest. After the burning is complete, the un-burnt or partly burnt rubbish are collected in one place for the complete burning. The fire kills the weeds, grasses and insects. Then, the ashes are scattered over the ground and dibbling of seeds begin in March before the advent of pre-monsoon rain. Before sowing starts, evil spirits are worshipped and sacrifices are made for a good crop and prosperity to the family. The seeds are sown either by broadcast or dibbling. The dibbling and planting of seeds is an exclusive job of the female members. The male members broadcast seeds of crops like millets and small millets, whereas crops like maize, pulses, sesamum and vegetables are dibbled by females. While dibbling the seeds, the woman walk over the field with a digging stick or bill-hook in hand, make a hole in the ground, sow a few seeds and cover it over with earth by pressing it down with her toe.

At the advent of rains, the seeds begin to sprout. Thus, the soil is never ploughed and no artificial irrigation is made. After sowing the crop, farmer pays cursory attention to the crop and to remove weeds from the field. The crop is, however, protected from stray cattle and wild animals by fencing the fields with bamboo. Many Jhumias construct a hut in the field to look after the crop properly.

### **7.2.3 Jhum Cycle:**

The jhum cycle is influenced by the pressure of population, nature and density of forests, terrain, angle of slope, texture of soil and the average annual rainfall. Areas of sparse population generally have longer jhum cycle (15-25 years), while areas with high density of population have shorter jhum cycle (5-10 years). The patches of land for shifting cultivation are not selected in any given order or sequence. There is always a room for choice. The period of consecutive cropping and fallowing differs from region to region and from tribe to tribe. But over the period of time, with the increase in population the jhum cycle became shorter and shorter. In brief, in the earlier decades, the period before which the Jhumias returned to cultivate the same plot was quite long. This was partly due to the limited population and partly to the better fertility of soil which used to be rested for nearly thirty to forty years.

### 7.2.4 Extent of Jhum Cultivation in Northeast India

Table 7.1 shows the extent of jhum cultivation in the states of Northeast India. The annual area under shifting cultivation is highest in Manipur (90,000) hectare followed by Arunachal Pradesh (70,000) hectare. Nagaland has lowest area annually under the shifting cultivation as shown in the table. Whereas the State of Assam, Mizoram and Meghalaya have 69,600 hectare, 63,000 hectare and 53,000 hectares of area annually brought into shifting cultivation respectively. Over the period of time due to pressure of population on land fellow period of shifting cultivation also reduced to great extent in the region.

**Table 7.1**  
**Status of Jhum Cultivation in Northeast Region**

| States            | Annual Area under Shifting Cultivation (Ha) | Fallow Period (Years) | Minimum Area Under Jhum at a given time ('000 Ha) | No. of Jhumia Families ('000) | Jhum Land/ Family |
|-------------------|---|-----------------------|---|-------------------------------|-------------------|
| 1                 | 2   | 3                     | 4   | 5                             | 6                 |
| Arunachal Pradesh | 70,000                                      | 3-10                  | 210   | 54                            | 1.29              |
| Assam             | 69,600                                      | 2-10                  | 139   | 58                            | 1.20              |
| Manipur           | 90,000                                      | 4-7                   | 360   | 70                            | 1.29              |
| Meghalaya         | 53,000                                      | 5-7                   | 265   | 52                            | 1.01              |
| Mizoram           | 63,000                                      | 3-4                   | 189   | 50                            | 1.26              |
| Nagaland          | 19,000                                      | 5-8                   | 191   | 116                           | 0.16              |
| Sikkim            | NA  | NA                    | NA  | NA                            | NA                |
| Tripura           | 22,300                                      | 5-9                   | 112   | 43                            | 0.51              |

Source: Basic Statistics of Northeast Region, 2015

### 7.2.5 Shifting Cultivation: Problems and Prospects:

Clearing of jungles is the prerequisite of shifting cultivation. The felling of trees and clearing of bushes, however, accelerate soil erosion and accentuate variability of rainfall which may lead either to droughts or floods which overall have impact in decline of soil fertility. The ecosystems thus lose their resilience characteristics. The population dependent on shifting cultivation faces the shortage of food, fuel wood and fodder. Consequently, the nutritional standard goes down. As the cycle of shifting cultivation becomes shorter, the humus of soil declines and the biodiversity is considerably affected.

There are divergent opinions about the evil and adverse effects of shifting cultivation on the ecology and environment of the region. Many of them hold the view that it is primitive and depletes the forest, water and soil resources. Since jhuming damages the ecosystems and

should be stopped completely. According to the opposite views, supporting the continuance of shifting cultivation with necessary and effective reforms, it does little damage to soil erosion as the high humidity and heavy rainfall in the region do not permit the soil to remain uncovered for long. Some form of vegetation immediately covers the top soil which checks the soil erosion.

During the agricultural operations also, as no ploughing, hoeing and pulverization of soil is done, the soil remains compact. Moreover, jhuming lands are on steep slopes on which sedentary cultivation cannot be developed easily. In fact, jhuming is a way of life, evolved as a reflex to the physiographical character of land under special ecosystems. It is practiced for livelihood and not without the knowledge of its adverse effects. Assessing the fact that jhuming system cannot be stopped altogether, it is necessary to make the process more productive so that it may sustain the growing pressure of Jhumias population at a reasonably good standard of nutrition. For a change in jhuming typology it is essential that the Jhumia is provided with land where they can cultivate and derive profits permanently.

Once the restrain ability of soil is ensured, then the question of augmenting the soil fertility through the addition of manures and fertilizers could be meaningful. Measures should be taken to see that Jhumias are trained in other types of occupations. They should be given training in raising trees, orchards and plant protection, cottage and small industries, and indigenous handicrafts. Moreover, they should be trained in the development of dairying, piggery, sheep-rearing, poultry, duck-keeping, fisheries, beekeeping, agriculture, etc. New crops of economic importance have to be developed and their diffusion should be extended in the isolated hilly areas. In fact, a cropping pattern with higher inputs will enable greater yields to be obtained per unit area and that will help in detracting the Jhumias from the uncertain way of life of shifting cultivation.

The main approach to overcome the evil of shifting cultivation should be to change the jhuming lands into sedentary farms. In the hilly areas, one of the most common measures that have been adopted in many small tracts with success is the construction and development of terraces. The different types of terraces can be adopted to fit in with a particular type of ecosystem. These terraces have a definite advantage towards achieving sedentary farming in the areas of shifting cultivation. It has been accepted by most of the planners that terracing has to play a major role if agricultural land use in the hilly tracts is to be made more efficient. There are, however, many techno economic problems in the development of terraces. Terracing, apart from being a costly measure, requires adequate irrigation facilities which in

the mountainous areas cannot be provided easily. It, therefore, may not be feasible to go for large scale terracing. The human energy input used in the jhuming, however, can be used for the development of small terraced farms. In several tracts on the northeastern hill region, terraces have been developed with the help of local human energy input involving very little direct monetary input.

Shifting cultivation is one of the greatest threats to the biodiversity of our planet, destroying about 10 million hectares of tropical forests annually. Nevertheless, it supplies farming families with food, firewood, medicines and other domestic needs, though it produces low yields of crops and has almost no potential beyond subsistence farming. Moreover, where population densities are low and forest areas vast, slash and burn practices are sustainable and harmonious with the environment. The long term objective should be to develop alternatives to shifting cultivation that are ecologically sound, economically feasible, and culturally acceptable.

The environmental degradation as a result of shifting cultivation may be checked substantially by:

- i) Developing practical and relevant guidelines for policies that encourage farmers to adopt technologies that are eco-friendly and environmentally sound;
- ii) Improve conditions for people living near the forests by diversifying land use and thereby increasing food production;
- iii) Protect biodiversity and ensure better use of genetic resources;
- iv) Increase soil productivity and reduce emission of greenhouse gases by capturing carbon in the soil. Intensification and modification of traditional systems—prolonged cropping cycles and decreased fallow periods—will lead to increased soil organic matter and plant biomass;
- v) Involve local people at all stages of decision making as well as in all research processes;
- vi) Amalgamate the most indigenous knowledge, and national and international experience and expertise;
- vii) Develop suitable strategies for agricultural marketing and subsidies;
- viii) Design biological barriers to prevent soil erosion and water runoff;
- ix) Develop tree, crop and pasture systems that cycle nutrients and enhance soil fertility, reducing the need for expensive inorganic fertilizers; and
- x) Evaluate policy option for reclamation of degraded lands.

### 7.3 Land Tenure and Problem of Agricultural credit

Northeastern region is inhabited mostly by the tribal population, the land tenure system in the hills of northeast is much different from that of the plains part of India. Also in the plains of the North East individual rights over land holding are transferable and buying and selling of such rights are ordinarily unrestricted. However in the hill areas individual rights over land is yet to take the form of full property rights in the sense that transfer of these rights is subject to restrictions. Non-transferability of land holding rights renders land unsuitable as collateral for the purpose of securing institutional credit to land holders.

Whereas, the plains parts of the northeast region are by and large free from these problem. This leaves out the Brahmaputra and the Barak Valleys of Assam (80% of the geographical area of Assam), the Imphal Valley of Manipur (10% of geographical area) and the plain areas of Tripura (40% of geographical area). The plains as usual are much more thickly populated than the hills and accommodate about 70% of the population of the region. Nonetheless the parts of the region comprised of the states of Arunachal Pradesh, Nagaland, Mizoram and Meghalaya, and the hill districts of Assam, Manipur and Tripura still accounts for a significant part of the economy of the region in which penetration of bank credit is hindered by non-establishment of transferable property rights on land.

Agriculture in the plains of northeast region is settled. As the land revenue being an important source of income for the government, land had been surveyed, titles had been giving ownership to individuals or institutions, and land holders were given title documents from the governments. Holding rights conferred in this manner are by and large heritable and transferable, and hence these rights are of the nature of full property rights as in other parts of the country. Obviously such land tenure system does not constitute an institutional hurdle for delivery of bank credit backed up by land as collateral.

In contrast agriculture in the hills of northeast region, traditionally are shifting in nature. Such agricultural practice makes the population nomadic with no settlement of population in a fixed location. Land used to be communally held and the right to land used to be distributed to families according to customary norms by the village council or the village chief. Also the absence of land revenue did not necessitate cadastral survey and settlement of land ownership. In this context it is perhaps significant to note that the system of



administration established in the plains of the region under British colonial rule was not extended to the hills. The hills were classified as 'excluded' or 'partially excluded' areas and tribal communities living in such areas were allowed to continue with their traditional arrangements of self-governance. After independence sixth schedule is incorporated in the constitution in an attempt to integrate these areas while preserving the traditional institution of self-governance of tribal communities of the region. Meanwhile penetration of market forces, the practice of settled cultivation and also urbanization has induced settling down of hill tribal population in fixed locations. The process has been instrumental in emergence of individual holdings in hill areas. This development has, however, not been backed up with cadastral survey and land settlement which could have been followed up with giving documents conferring legal ownership rights over holdings. The evolution of land holding rights to full property rights has hence remained incomplete.

In those parts of the hills of the North East where individual holdings of land have emerged, transfer of the holding is possible and it takes place frequently but within the tribal population only. The details of the modalities of such transfers differ from state to state and also in some cases even within the state. The transfer by sale of individual holdings within a village can take place within members of the same tribe, and such transfers are recognised by the village community. In some cases, sale deeds on plain or stamped papers are executed by the transacting parties to record the transfer. But the process does not result in any formal record or documents conferring land holding rights. The Inter-tribal transfer of individual holdings of village land is generally not in practice, though such transfer of communally held land are known to be in practice. In towns, transfer of land holdings among individuals of even different tribes but of the same state is generally permissible. But transfer of land holding rights to non-tribal is prohibited by law in all the hill areas to prevent alienation of tribal land.

At present in the hills of northeast region there are two system of land tenure exist: (a) community ownership of land in areas where shifting cultivation is still practised and the households enjoy user rights to land allocated to them by traditional authority and (b) individual ownership of land which is transferable only within members of local tribal community. The first type of land tenure is not only problematic as far as use of land as collateral for advancing bank credit is concerned, but does not even create incentives for investment for land improvement and conservation of its long term use-value. And in the

second type, where individual holdings have emerged, problem in use of land as collateral for bank loan can yet arise because of absence of documents formally entitling individuals with ownership. Without such a document banks are reluctant to take land holding rights as collaterals for advancing credit.

## 7.4 Land Use Pattern and Cropping Pattern in Northeast India

### 7.4.1 Land Use Pattern in Northeast India

The land use pattern of northeast is shown in table 7.2, where the figure shows the different uses of land as percentage of total land utilization.

**Table 7.2**  
**Land Use Pattern in Northeast India during 2014-15**  
(As Percentage to total land utilization)

| States            | Forest | Not Available for Cultivation | Permanent Pastures and other grazing land | Land Under Misc.Trees crops and groves | Culturable wasteland | Fallow land other than current fallow | Current fallow | Net area sown |
|-------------------|--------|-------------------------------|---|--|----------------------|---------------------------------------|----------------|---------------|
| Arunachal Pradesh | 93.0   | 0.9                           | 0.2                                       | 0.5                                    | 0.9                  | 0.9                                   | 0.5            | 3.1           |
| Assam             | 23.6   | 31.4                          | 2.1                                       | 2.8                                    | 1.8                  | 1.1                                   | 1.1            | 36.0          |
| Manipur           | 80.3   | 1.3                           | 0.0                                       | 0.3                                    | 0.0                  | 0.0                                   | 0.0            | 18.1          |
| Meghalaya         | 42.2   | 10.7                          | 0.0                                       | 7.4                                    | 17.4                 | 6.9                                   | 2.7            | 12.8          |
| Mizoram           | 77.7   | 3.7                           | 0.5                                       | 2.0                                    | 0.3                  | 6.2                                   | 2.3            | 7.1           |
| Nagaland          | 52.2   | 5.8                           | 0.0                                       | 5.6                                    | 4.1                  | 6.0                                   | 3.0            | 23.2          |
| Sikkim            | 76.0   | 2.3                           | 0.0                                       | 0.9                                    | 0.9                  | 1.1                                   | 1.6            | 17.4          |
| Tripura           | 60.0   | 13.9                          | 0.1                                       | 1.0                                    | 0.3                  | 0.2                                   | 0.1            | 24.3          |
| All India         | 23.3   | 14.3                          | 3.3                                       | 1.0                                    | 4.1                  | 3.6                                   | 4.9            | 45.5          |

Source: NEDfi Data Bank, 2019

The above table represents the land use pattern in Northeast India during the year 2014-15. From the table it can be seen that, Arunachal Pradesh has the highest land under forest coverage i.e. about 93 percent of the total land is covered by forest followed by Manipur (80.3 percent). 23.6 percent of the land in Assam is covered under forest which is equivalent to All India level (23.3 per cent). 31.4 per cent of the total land under Assam is not available for cultivation. Among all the Northeast Indian state Assam has highest lands that is not available for cultivation, in the year 2014-15 followed by Tripura and Meghalaya. In Assam the land under permanent pastures and other grazing land constitute 2.1 per cent of the total land. Whereas states like Manipur, Meghalaya, Nagaland and Sikkim have zero (refer to table) pastures and grazing lands. Meghalaya have 7.4 percent of the total land under misc.

trees, crops and groves. 17.4 percent of the total land under Meghalaya comes under wastelands. Other north east states have only margin of land under cultivable wastelands. The total lands covered under fallow and other than current fallow are greater than the land under current fallow in all the Northeast state except for Tripura. But at All India level, land coverage under current fallow (4.9 percent) is higher than land coverage under current Fallow (3.6 percent). 36 percent of the total land in Assam is used under net area sown, whereas in Arunachal Pradesh only 3 percent of the total land is covered by net area sown. Thus, from the above table it can be concluded that in Northeast Indian states the total lands are covered with forest except for Assam where only 23.6 percent of land is covered by forest.

#### **7.4.2 Cropping Pattern in Northeast India**

The table 7.3 represents the cropping pattern of North East Indian states. Cropping pattern means the proportion of area under various crops at a point of time. The figures are calculated as total area under various crops at given year divided by total cropped area. From the table it can be seen that all the states cultivate both food grains (rice, wheat, millets, pulses) and non food grain (oilseeds, fruits, vegetables, spices). As per the figures the cropping pattern in the state are dominated by foodgrains in 2012-13 (70% in Arunachal Pradesh, 66 percent in Assam, 56 percent in Tripura, 61 percent in Nagaland). With food grains rice has the highest gross cropped area in all the states where cropping pattern are dominated by foodgrains except in Sikkim where the maize constituted 29 percent of gross cropped area. Mizoram is the only state whose cropping pattern is dominated by non foodgrain; fruits crop constituting 50 percent (in 2013-14) of the gross cropped area. Among the foodgrains wheat has the lowest share in the cropping pattern in all the eight states with only marginal or zero shares in the gross cropped area which is comparatively lower than all India level which is 15 percent of the gross cropped area. At all India levels the foodgrains (54 percent) dominates the cropping pattern with rice having the highest share in gross cropped area followed by Wheat.

**Table: 7.3 Cropping pattern in Northeast India**

| State /Year              | Rice | Wheat | Maize | Millets | Vegetables | Oilseeds | Spices | Pulses | Fruit Crops |
|--------------------------|------|-------|-------|---------|------------|----------|--------|--------|-------------|
| <b>ARUNACHAL PRADESH</b> |      |       |       |         |            |          |        |        |             |
| 2012-13                  | 44.2 | 1.0   | 16.7  | 8.0     | 0.5        | 11.3     | 3.57   | 3.33   | 30.48       |
| 2013-14                  | 44.6 | 1.0   | 15.9  | 7.7     | 0.5        | 11.1     | 3.44   | 3.28   | 30.10       |
| 2014-15                  | 42.5 | 1.3   | 16.1  | 8.7     | 0.6        | 11.7     | 3.40   | 3.85   | 30.10       |
| <b>ASSAM</b>             |      |       |       |         |            |          |        |        |             |
| 2012-13                  | 61.0 | 0.8   | 0.6   | 0.1     | 6.8        | 7.5      | 2.37   | 3.46   | 3.70        |
| 2013-14                  | 59.7 | 0.8   | 0.6   | 0.1     | 6.9        | 7.4      | 2.27   | 3.66   | 3.53        |
| 2014-15                  | 61.1 | 0.6   | 0.7   | 0.1     | 7.1        | 7.5      | 2.41   | 3.63   | 3.56        |
| <b>MANIPUR</b>           |      |       |       |         |            |          |        |        |             |
| 2012-13                  | 39.7 | 0.8   | 6.3   | 0.0     | 7.0        | 14.3     | 3.39   | 9.81   | 16.81       |
| 2013-14                  | 59.1 | 0.6   | 6.9   | 0.0     | 6.7        | 9.8      | 2.78   | 8.46   | 14.34       |
| 2014-15                  | 58.6 | 0.6   | 6.8   | 0.0     | 7.7        | 9.6      | 2.73   | 8.41   | 14.52       |
| <b>MEGHALAYA</b>         |      |       |       |         |            |          |        |        |             |
| 2012-13                  | 32.1 | 0.1   | 5.1   | 0.7     | 11.9       | 2.9      | 4.96   | 1.06   | 9.75        |
| 2013-14                  | 32.0 | 0.1   | 5.3   | 0.8     | 12.7       | 4.0      | 5.10   | 0.85   | 10.29       |
| 2014-15                  | 32.2 | 0.1   | 5.3   | 0.8     | 13.0       | 4.1      | 5.10   | 2.36   | 10.56       |
| <b>MIZORAM</b>           |      |       |       |         |            |          |        |        |             |
| 2012-13                  | 12.6 | 0.0   | 5.2   | 0.0     | 33.9       | 1.8      | 19.37  | 2.67   | 42.83       |
| 2013-14                  | 34.0 | 0.0   | 5.1   | 0.0     | 36.1       | 1.8      | 19.71  | 3.42   | 50.48       |
| 2014-15                  | 25.5 | 0.0   | 3.9   | 0.0     | 30.4       | 1.4      | 16.07  | 2.90   | 41.57       |
| <b>NAGALAND</b>          |      |       |       |         |            |          |        |        |             |
| 2012-13                  | 37.5 | 0.7   | 14.0  | 1.8     | 5.3        | 13.2     | 2.00   | 8.14   | 7.61        |
| 2013-14                  | 38.0 | 0.6   | 13.8  | 1.7     | 7.7        | 13.0     | 1.96   | 7.58   | 8.11        |
| 2014-15                  | 39.0 | 0.6   | 13.8  | 1.7     | 7.7        | 13.0     | 1.95   | 7.40   | 8.11        |
| <b>SIKKIM*</b>           |      |       |       |         |            |          |        |        |             |
| 2012-13                  | 8.3  | 0.4   | 27.8  | 4.5     | 17.8       | 5.7      | 18.44  | 4.44   | 10.17       |
| 2013-14                  | 7.6  | 0.2   | 27.2  | 2.0     | 17.8       | 5.4      | 21.81  | 4.29   | 10.90       |
| 2014-15                  | 8.1  | 0.3   | 29.3  | 2.2     | 21.4       | 5.8      | 25.06  | 4.63   | 0.01        |
| <b>TRIPURA</b>           |      |       |       |         |            |          |        |        |             |
| 2012-13                  | 53.7 | 0.1   | 0.8   | 0.0     | 9.5        | 1.0      | 1.20   | 1.79   | 12.68       |
| 2013-14                  | 53.6 | 0.0   | 1.0   | 0.0     | 9.9        | 1.3      | 1.20   | 2.57   | 14.43       |
| 2014-15                  | 53.3 | 0.0   | 0.9   | 0.0     | 10.1       | 1.8      | 1.18   | 2.42   | 14.86       |
| <b>ALL INDIA</b>         |      |       |       |         |            |          |        |        |             |
| 2012-13                  | 22.0 | 15.4  | 4.5   | 0.4     | 0.2        | 13.6     | 1.58   | 11.97  | na          |
| 2013-14                  | 22.0 | 15.2  | 4.5   | 0.3     | 0.3        | 14.0     | 1.57   | 12.55  | 3.59        |
| 2014-15                  | 22.2 | 15.9  | 4.6   | 0.3     | 0.3        | 12.9     | 1.67   | 11.87  | 3.08        |

Source: NEDfi Data Bank

## 7.5 Need for land reform with reference to Arunachal Pradesh

The term land reforms are reforms of institutional factors related to land. In order to raise the agricultural production and also increase the level of income and standard of living of the cultivators, institutional factors along with technical factors are playing an important role. These institutional factors include land tenure system, land holdings, farming structure, land

distribution, intermediaries etc. The term 'land reforms' has two different senses. In a narrow sense, land reforms are concerned with those reforms related to land ownership and land holdings. But in a broad sense, the term 'land reforms' is used to mean those measures of reforms necessary to raise agricultural productivity which include reforms relating to fixation of rent on land, abolition of intermediaries, credit and marketing arrangements etc. The land reform legislation was passed by the Government of India includes following measures:

1. Abolition of intermediaries.
2. Tenancy reforms to regulate fair rent and provide security to tenure.
3. Ceilings on holdings and distribution of surplus land among the landlords.
4. Consolidation of holdings and prevention of their further fragmentation and
5. Development of cooperative farming.

Northeast India being inhabited by tribal population and majority of population are engage in agriculture and allied activities as their primary occupation. The nature of agriculture in the hills of northeast is shifting cultivation and such agricultural practice makes the population nomadic and with no fixed location of agriculture field. Further in the hills of northeast land ownership pattern can be classified into two categories: a) community ownership and b) individual ownership. The community ownership of land generally belongs to community or tribes, where the land is distributed among the tribal families by the village chief or village head for agricultural purpose. On the other hand, individual ownership of land exists possessing some legal documents of land from the respective government after recognised by their own tribal community or institution. However, in recent times, the traditional landownership pattern in the tribal societies of the northeast region in general and Arunachal Pradesh in particular is undergoing rapid transformation. In Arunachal Pradesh (Land Settlement and Records) Act of 2000, residents of the state did not have land titles. The only document the indigenous population received to stake claim to a piece of land was a "land possession certificate" issued by the deputy commissioner of a district, subject to approval by the forest department and the village council. Actual ownership continued to rest with the state government. Keeping apart the government land, most of the land across Arunachal Pradesh was owned by communities and not individuals. Though people had Land Possession Certificates (LPCs), for the plots which belonged to them but the LPCs didn't give them ownership rights of the land. In the absence of any formal documents regarding the land ownership make it difficult for the tribal population of the State to make any collateral agreement or mortgaged it for loans from banks or any other financial institution. Thus there is a need of land reform in Arunachal Pradesh so that the tribal population can enjoy

full benefit of land ownership and avail bank loans for the development of agriculture and other sectors of the State economy. In recent the Arunachal Pradesh Land Settlement and Records Amendment Bill, 2018, which confers ownership rights to indigenous tribal people including communities and clans possessing LPCs, was passed State assembly. The bill recognises ownership right of the citizens, particularly indigenous people of the state and provides them right to give their land on long-term lease up to 33 years, which is extendable to another 33 years making it to 66 years in total for big and small ventures.

## 7.6 Agricultural Productivity in Northeast India

The table 7.4 shows the agricultural productivity in terms of kilograms per hectare of the Northeast Indian states.

**Table: 7.4**  
**Trends in Agricultural Productivity of some major crops in Northeast India**

| State /Year       | Rice    | Wheat   | Maize   | Millets | Oilseeds | Pulses |
|-------------------|---------|---------|---------|---------|----------|--------|
| ARUNACHAL PRADESH |         |         |         |         |          |        |
| <b>2012-13</b>    | 1032.41 | 1498.47 | 1436.04 | 1032.41 | 909      | 1122   |
| <b>2013-14</b>    | 1049.78 | 1510.14 | 1467.04 | 1049.78 | 958      | 1155   |
| <b>2014-15</b>    | 1038.46 | 1973.68 | 1562.50 | 1038.46 | 971      | 1263   |
| <b>2015-16</b>    | 1002.18 | 1969.31 | 1541.52 | 1002.18 | 1040     | 1015   |
| <b>2016-17</b>    | 5118.35 | 1969.31 | 1500.00 | 5118.35 | 1040     | 1011   |
| <b>2017-18</b>    | 1020.00 | 1970    | 1520.52 | 1020    | 1040     | 1020   |
| Assam             |         |         |         |         |          |        |
| <b>2012-13</b>    | 494.36  | 1303.92 | 897.05  | 494.36  | 610      | 598    |
| <b>2013-14</b>    | 613.97  | 1292.43 | 898.12  | 613.97  | 613      | 695    |
| <b>2014-15</b>    | 603.00  | 1216.49 | 3332.74 | 603.00  | 670      | 748    |
| <b>2015-16</b>    | 673.58  | 1633.52 | 3070.42 | 673.58  | 694      | 757    |
| <b>2016-17</b>    | 616.34  | 1343.91 | 2911.28 | 616.34  | 643      | 735    |
| <b>2017-18</b>    | 584     | 1386    | 3132    | 584     | 638      | 748    |
| Manipur           |         |         |         |         |          |        |
| <b>2012-13</b>    | 767.54  | 2500.00 | 2301.44 |         | 729      | 935    |
| <b>2013-14</b>    | 871.89  | 2497.78 | 2246.45 |         | 840      | 937    |
| <b>2014-15</b>    | 920.14  | 2601.85 | 2243.22 |         | 863      | 959    |
| <b>2015-16</b>    | 949.76  | 2497.78 | 2303.89 |         | 847      | 963    |
| <b>2016-17</b>    | 955.78  | 2497.78 | 2194.03 |         | 858      | 973    |
| <b>2017-18</b>    | 951     | 2498    | 2343    |         | 870      | 965    |
| Meghalaya         |         |         |         |         |          |        |
| <b>2012-13</b>    | NA      | 1806.28 | 1554.02 | 767.54  | 695      | 1019   |
| <b>2013-14</b>    |         | 1880.95 | 2199.67 | 871.89  | 1030     | 1126   |
| <b>2014-15</b>    |         | 1909.09 | 2259.42 | 920.14  | 1071     | 1405   |
| <b>2015-16</b>    |         | 1953.13 | 2284.12 | 949.76  | 1091     | 1442   |
| <b>2016-17</b>    |         | 1913.04 | 2291.23 | 955.78  | 1051     | 1446   |
| <b>2017-18</b>    |         | 1928    | 2293    | 951     | 1057     | 1439   |
| Mizoram           |         |         |         |         |          |        |
| <b>2012-13</b>    |         |         | 1314.14 |         | 1078     | 1061   |
| <b>2013-14</b>    |         |         | 1420.42 |         | 1146     | 1468   |
| <b>2014-15</b>    |         |         | 1514.94 |         | 1117     | 1416   |

|                  |         |         |         |         |      |      |
|------------------|---------|---------|---------|---------|------|------|
| <b>2015-16</b>   |         |         | 1342.24 |         | 1112 | 1361 |
| <b>2016-17</b>   |         |         | 1541.96 |         | 1140 | 1352 |
| <b>2017-18</b>   |         |         | 1583.87 |         | 1113 | 1544 |
| <b>Nagaland</b>  |         |         |         |         |      |      |
| <b>2012-13</b>   | 1120.05 | 1801.22 | 1960.83 | 1120.05 | 1047 | 1096 |
| <b>2013-14</b>   | 1124.57 | 1823.33 | 1969.18 | 1124.57 | 1048 | 1124 |
| <b>2014-15</b>   | 1122.12 | 1824.10 | 1975.30 | 1122.12 | 1048 | 1146 |
| <b>2015-16</b>   | 1122.43 | 1830.77 | 1978.81 | 1122.43 | 1047 | 1150 |
| <b>2016-17</b>   | 1109.67 | 1840.24 | 1979.99 | 1109.67 | 1050 | 1151 |
| <b>2017-18</b>   | 1112.17 | 1836    | 1981.92 | 1112.17 | 1050 | 1159 |
| <b>Sikkim</b>    |         |         |         |         |      |      |
| <b>2012-13</b>   | 969.42  | 1057.69 | 1700.03 | 969.42  | 863  | 915  |
| <b>2013-14</b>   | 1003.38 | 1083.33 | 1723.77 | 1003.38 | 887  | 925  |
| <b>2014-15</b>   | 1003.38 | 1076.92 | 1727.43 | 1003.38 | 891  | 925  |
| <b>2015-16</b>   | 980.39  | 1093.75 | 1753.79 | 980.39  | 909  | 954  |
| <b>2016-17</b>   | 1009.02 | 1078.13 | 1762.74 | 1009.02 | 918  | 961  |
| <b>2017-18</b>   | 1031    | 1079    | 1767    | 1031    | 924  | 954  |
| <b>Tripura</b>   |         |         |         |         |      |      |
| <b>2012-13</b>   | 0.00    | 2000.00 | 1294.77 | 0.00    | 506  | 705  |
| <b>2013-14</b>   | 0.00    | 2000.00 | 1278.87 | 0.00    | 759  | 719  |
| <b>2014-15</b>   | 0.00    | 2142.86 | 1303.10 | 0.00    | 793  | 718  |
| <b>2015-16</b>   | 820.00  | 2236.26 | 1398.91 | 820.00  | 771  | 673  |
| <b>2016-17</b>   | 801.14  | 2300.00 | 1394.60 | 801.14  | 814  | 952  |
| <b>2017-18</b>   | 783     | 2031    | 1428.54 | 783     | 780  | 710  |
| <b>All India</b> |         |         |         |         |      |      |
| <b>2012-13</b>   | 577.72  | 3116.54 | 2566.49 | 577.72  | 1168 | 789  |
| <b>2013-14</b>   | 630.09  | 3145.38 | 2675.80 | 630.09  | 1168 | 764  |
| <b>2014-15</b>   | 654.47  | 2749.88 | 2631.64 | 654.47  | 1075 | 728  |
| <b>2015-16</b>   | 601.51  | 3034.00 | 2562.69 | 601.51  | 968  | 655  |
| <b>2016-17</b>   | 713.84  | 3199.92 | 2688.60 | 713.84  | 1195 | 786  |
| <b>2017-18</b>   | 803.6   | 3368.21 | 3065.32 | 803.6   | 1284 | 853  |

Source: Nedfi Data Bank

Note: Figures shows the kgs/hectare

The productivity of rice and millets per hectare is same (in absolute numbers) for all the northeast states. The productivity of oilseeds is lower than other crops in Arunachal Pradesh. The average productivity of rice is highest in Arunachal Pradesh among the north east states. But the productivity of wheat is higher than the productivity of rice within the state. The productivity of crops in Assam is lower than that of Arunachal Pradesh Except for the production of maize in 2013-14 and 2014-15. Productivity of wheat per hectare is highest in Manipur and Tripura. The all India level of wheat productivity is higher than the Northeast states of India. The productivity of oilseeds is very low compared to other crops. Mizoram has the highest productivity of oilseeds and pulses among the north east states. The productivity of oilseeds and the pulses were recorded lowest in Assam. The productivity of

maize was higher in all India level than the north east states except Assam during the year 2014-15 and 2015-16.

### **7.6.1 Causes of Agricultural Low Productivity in Northeast India.**

The main causes of low agricultural productivity in northeast India can be discussed under following heads:

**Uneconomic and fragmented holdings:** The marginalization of farmers is a dominant factor adversely affecting household income. Over 60.27 per cent of the operational holdings are below 1.0 ha and 22.18 per cent of the holdings are in the farm size group 1-2 ha. Except Nagaland, in other North-East states, the size of operational holding is very small. Such small holdings are uneconomic and results in under-investment in agriculture leading to low input use and low production.

**Low adoption of improved technology:** The adoption of HYV seeds in case of rice and other food crops in the northeast region is very low and also varies from region to region. The main causes of slow growth of HYV area are the non-availability of suitable seeds, predominance of traditional seeds in hill areas under Jhum cultivation, short supply of recommended seeds and defective distribution system. The fertilizer consumption is also low and variable. There are number of factors limiting the expansion of fertilizer use such as defective distribution system, poor transport and communication system and inadequate institutional credit. On the other hand, irrigation is another crucial constraint to agricultural production, which, at present covers less than 10 per cent of the gross cropped area.

**Flood problem in the region:** Flood is a major natural disaster regularly causing inundation and damage of standing crops, delay transplanting of main rice crop (Sali), which results in low yield. Some studies found that about 3.0 lakh hectare of cropped area are annually affected by flood in Assam. The worst soil erosion affected districts are North Lakhimpur, Dhemaji, Darrang and so on.

### **Technological Constraints**

1. Lack of suitable high-yielding rice varieties for diverse upland situations, flood affected areas, moisture stress conditions, and hill areas



2. Alternative crops for escaping pre-monsoon showers to avoid the problem of pre-harvest sprouting of crop in flood, free period
3. Develop improved crop management practices for shifting cultivation
4. Improvement and standardization of production techniques of fruits and vegetable crops
5. Use of improved post harvest management including pest and disease management and processing techniques for the major cash crops and horticultural crops
6. Land and water management technique specifically for acid soils
7. Economic packages for integrated farming systems combining crop cultivation with livestock, fishery, etc.
8. Integrated livestock management system for increased livestock products as well as draught power. The facilities of storage, processing and marketing are particularly deficient for perishable commodities. The access to institutional credit facility to the farmers must be improved substantially.

### **Attitude towards Agriculture**

Agriculture is the most preferred activity of a large section of the population in the region, yet the method of cultivation is indigenous. In view of the rapid technology turn over, appropriate strategy for HRD is required to maximize farm income through adoption of cutting-edge modern technology. The farmers usually stick to old practices and the younger generation distracts, which makes agriculture an occupation of elderly people living in rural areas. To attract enterprising youths to take up farming as profitable occupation and to reverse the out-migration, innovative strategy such as commercialization of agriculture and adoption of improved methods must be promoted.

### **Socio-economic Constraints**

The North-East India has diverse ethnic groups and social systems bound with customs and traditions. These factors clearly differentiate the type of economic activities and the economic status of the population, which inhibit the adoption of modern methods. Carefully prioritized strategies for agricultural development of the region may become instrumental to break the deadlock.

### 7.7 Further Readings:

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## UNIT – VIII

### DEVELOPMENT OF SECONDARY AND TERTIARY SECTOR IN NORTHEAST INDIA

#### Structure

- 8.0 Introduction
- 8.1 Objectives
- 8.2 Present Status of Industries in Northeast Region
- 8.3 Industries in North Eastern Region
  - 8.3.1 Agro-based Industries
  - 8.3.2 Forest-based Industries
  - 8.3.3 Textile-based Industries
  - 8.3.4 Mineral-based Industries
  - 8.3.5 Other Industries
- 8.4 Distribution of Micro, Small, Medium Enterprise in NER
- 8.5 Factors inhibiting the growth of Industries in North East
- 8.6 Infrastructure Development: Power, Transport, Communication
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#### 8.0 Introduction

The term Industry refers mainly to the manufacturing activity. Industrialisation relates to the organisation of manufacturing activity for increasing production in business enterprises. Industrialisation is a process of economic development where an increasing proportion of local resources are mobilised to establish a technically up-to-date and diversified economic processing. It implies, not merely development of certain industries, but certain basic changes in the structure, technology and organisation of economic activity.

The North-East India has got its definite identity due to its peculiar physical, economic and socio-cultural characteristics. This region consists of eight states viz., Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Tripura, Sikkim. The NER of India covers an area of 2.62 lakh sq.km. It accounts for 7.9% of total geographical area of the country. With a total population of 46 million (2011), it accounts for 3.8% of total population

of India. 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), natural gas etc. in Assam and mining, saw mills and steel fabrication units in other parts of the region. The full potential of the region is yet to be exploited and this has left the economy in a primarily agrarian state.

The North East Region has often been termed as industrially backward region of the country. Among the various reasons for its lack of connectivity, backwardness is the major form. The region also shares international borders with China, Tibet, Myanmar, Bangladesh, Nepal, and Bhutan, and is considered to be of vital geopolitical and economic importance. Bolstering the economic development and investment potential of the region is thus a key aspect of India's Act East policy, which focuses on improved socioeconomic, trade, and business engagement with East Asia and the ASEAN states.

### **8.1 Objectives**

- ❖ To know the status of MSME in Northeast India and the factor inhabiting the growth of these industries
- ❖ Infrastructure development in Northeast India
- ❖ Role of financial institution in the development of the NE region

### **8.2 Present Status of Industries in Northeast Region**

The Northeast Region is industrially underdeveloped despite the fact that the region is endowed with vast potential of natural resources in term of forest, hydro-electricity, bio-diversity, etc.,. The present contribution of the industries in respective State domestic product of NER can be explained with the help of table.

**Table 8.1**  
**Percentage Share of Industry in Gross Value added in current price 2016-17**

| States            | Mining and quarrying | Manufacturing | Electricity, gas, water supply & other utility services | Industry Total |
|-------------------|----------------------|---------------|---|----------------|
| Arunachal Pradesh | 2.85                 | 2.61          | 9.21  | 14.66          |
| Assam             | 10.92                | 12.37         | 2.09  | 25.38          |
| Manipur           | NA                   | 3.26          | 1.96  | 5.22           |
| Meghalaya         | 6.08                 | 7.78          | 1.93  | 15.79          |
| Mizoram           | 0.99                 | 0.69          | 13.66   | 15.34          |
| Nagaland          | 0.96                 | 1.39          | 1.98  | 4.33           |
| Sikkim            | 0.10                 | 40.56         | 13.67   | 54.33          |
| Tripura           | NA                   | NA            | NA  | NA             |
| India             | 2.41                 | 16.83         | 2.63  | 29.29          |

Source: NEDFi Data Bank

The table 8.1 shows that gross value added of industrial sector of Sikkim is more than 50 percent. Its manufacturing sector alone contribute around 40 percent. Since the state Sikkim is well connected with Siliguri (nearest railway station) and also known as chicken neck corridor which connect the entire northeast region to rest of India. In the State of Assam almost 25 percent of Gross value added to its domestic product come from industrial sector. The contribution of Industrial sector in Assam is all time high due to its extensive oil exploration and tea plantation industry. Since from the time of colonial rule Assam in the NER is industrially developed compared to the rest of the States. Over the period of time due Look East Policy and Act East Policy of the government, industrial sector in the other States of northeast is also getting boost especially hydro-electricity industry. On the other hand, both the state of Meghalaya and Mizoram, the industrial sector contribute around 15 percent to its respective domestic product. The figures of all India level shows that industry contribute around 30 percent to its GDP in 2016-17. The manufacturing unit contribute 16.83 percent, mining & quarrying (2.41) and electricity, gas, water supply & other utility services (2.63) percent respectively.

### **8.3 Industries in North Eastern Region**

Industrially, the states in the region hardly have any industrial base, except perhaps Assam, because of its traditional tea, oil and wood based industries. To some extent Meghalaya has made some headway in setting up of small and medium industries. In recent years the “Look East Policy” of Government of India has made North East more important and strategic. The region has to gear up to take up more challenges and capitalize on the opportunities thrown open by the huge market in the South East Asian Countries. The industries of this region can be broadly classified as under:

#### **8.3.1 Agro-based Industries**

Agriculture is the main occupation of the people of North Eastern Region. SSI units based on the agricultural products play a significant role in the economy of NER since the early stages of development. Most of the units are engaged in the manufacturing or processing of food products. Agro based products like paddy; ginger, chilly, orange, and maize, banana, passion fruits, mustard, turmeric, sugarcane and such other crops are grown intensively throughout the entire region. Rice mill, paddy dehusking, gur making, chow making, oil mill, spice grinding, small flour mill, pickle making, chips making, banana fibre extraction unit etc. are some of the important agro-based industries under the category of food products and allied industries.

#### **8.3.2 Forest-based Industries**

Nature has bestowed the NER with varieties of flora and fauna. The entire region is rich in forest and forest resources. Small scale and cottage industrial units based on the forest resources occupy a dominant place in the industrial sector of the economy. Different species of bamboo, varieties of timbers like teak, eucalyptus, rubber, pine, magnolia and oak, cane, medicinal plants and herbs, broom etc. are some of the important forest products of the region. Wood Products like furniture making, door and window making, automobile body building, saw mill, bamboo ply, mat ply, fibre board, decorative items like telephone stand etc., bamboo products like bamboo bags, hats, baskets, tooth picks, mats, cane furniture's,

carpentry works, citronella oil producing units etc. are some major forest-based SSI units in NER.

### **8.3.3 Textile-based Industries**

Since time immemorial, the tribal societies of NER were characterized by the use of colourful traditional dresses prepared by the local weavers. Handloom and weaving is a popular household industry among the tribal's. Handloom industry plays an important role for socio-economic development in the region in addition to safeguard the age old custom, tradition and culture. The modern textile industries have not been developed in this region; most of the traditional loin-loom has been replaced by zo-loom and fly shuttle looms due to their higher working capacity. The use of improved power loom is very few in numbers among the hill people. Most of the looms are operated by hands. Some textile units such as readymade garments of cotton and wool, knitting and embroidery, tailoring etc. are there in the state. Most of the handlooms are specialized in the production of traditional dresses.

### **8.3.4 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.

### **8.3.5 Other Industries**

It includes power generation industry, fertiliser industry, paper products printing press, chemical industry, metal industry, rubber & plastic based industries, leather industries etc.

## **8.4 Distribution of Micro, Small, Medium Enterprise in NER**

The table 8.2 shows the statewise distribution of MSME in the NER. The figures show that in NER, Assam has highest number of MSME which is around 12 lakhs unit followed by Tripura that is around 2 lakhs unit. It is to be noted that due to various bottleneck presence in

the region, numbers of micro enterprise are highest in the region. In the state of Assam alone around 12.10 lakhs of micro enterprise registered in the State. The household industry especially silk weaving industry is generally found in every household in Assam. It is also famous for production Eri and Muga silk in the region. The state of Tripura has also around 2 lakh micro enterprise followed by Manipur. On the other hand, rest of the NER has negligible amount of micro enterprise. In case of small and medium it is almost nill in the region. The figures of NER shows that around 18 lakhs of micro enterprise is registered.

**Table 8.2**  
**State-wise Distribution of MSME in Northeast Region**

| State             | Estimated number of enterprise (in Lakhs) |       |        |        |
|-------------------|---|-------|--------|--------|
|                   | Micro                                     | Small | Medium | MSME   |
| Arunachal Pradesh | 0.22                                      | 0.00  | 0.00   | 0.23   |
| Assam             | 12.10                                     | 0.04  | 0.00   | 12.14  |
| Manipur           | 1.80                                      | 0.00  | 0.00   | 1.80   |
| Meghalaya         | 1.12                                      | 0.00  | 0.00   | 1.12   |
| Mizoram           | 0.35                                      | 0.00  | 0.00   | 0.35   |
| Nagaland          | 0.91                                      | 0.00  | 0.00   | 0.91   |
| Sikkim            | 0.26                                      | 0.00  | 0.00   | 0.26   |
| Tripura           | 2.10                                      | 0.01  | 0.00   | 2.11   |
| NER               | 18.86                                     | 0.05  | 0.00   | 18.92  |
| All India         | 630.52                                    | 3.31  | 0.05   | 633.88 |

Source: NEDFi Data Bank

### **8.5. Factors inhibiting the growth of Industries in North East**

1. **Inefficient Manpower:** Manpower plays an important role in any industry. The inefficiency of manpower in small- scale industries due to illiteracy, ignorance, lack of training facilities etc. affected the growth of small- scale industries.
2. **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 been changed after nationalisation of commercial banks but it is still far from satisfactory.
3. **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.
4. **Lack of Marketing Facilities:** The small- scale industries 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.

5. Old Designs: The small- scale industries are continuing with the age old designs. The products are unable to meet the modern demand.

6. Scattered Plantation & Uneven Distribution The most important challenge which affects the marketing of produces in the region is the scattered plantation and uneven distribution of products which is uneconomical and inefficient. This in particular resulted in distress sale of surplus product in the local market as it could not attract big buyers from outside.

7. Lack of road and transportation facility Another major challenge is the non-availability of proper transportation network, across the region covering urban, semi-urban and rural areas; which in particular affects the movement of produces from the region to other parts of the country. As a result, increase in transportation cost or damage of goods during transportation or both contributing to low economic return. Most seasonal crops produced in one area cannot be taken to other part of the region for marketing due to lack of proper logistic support & poor transportation facilities.

8. Lack of good marketing agencies and other distribution channel Lack of appropriate marketing agencies in the region till date, is one of most important factor due to which the supply chain for the sale of farm based produces gets affected. Normally, private traders and middlemen pre-dominate the market and trading of agricultural produce in the region.

## 8.6 Infrastructure Development: Power, Transport, Communication

**Table 8.3**  
**Status of Installed capacity (in MW) of Power in Northeast Region (As on 30.06.2019)**

| States            | Sources of Power |         |         |            | Total   |
|-------------------|------------------|---------|---------|------------|---------|
|                   | Thermal          | Nuclear | Hydro   | Res (MNRE) |         |
| Assam             | 1196.79          | 0.00    | 457.08  | 60.98      | 1714.85 |
| Arunachal Pradesh | 83.87            | 0.00    | 116.55  | 136.50     | 336.92  |
| Meghalaya         | 155.29           | 0.00    | 394.27  | 32.65      | 582.21  |
| Tripura           | 662.55           | 0.00    | 68.49   | 25.42      | 756.46  |
| Manipur           | 154.67           | 0.00    | 95.34   | 8.92       | 258.93  |
| Nagaland          | 81.03            | 0.00    | 57.33   | 31.67      | 170.03  |
| Mizoram           | 71.51            | 0.00    | 97.94   | 36.98      | 206.43  |
| Total NER         | 2581.83          | 0.00    | 1427.00 | 333.12     | 4341.94 |

Source: [http://www.cea.nic.in/reports/monthly/installedcapacity/2019/installed\\_capacity-06.pdf](http://www.cea.nic.in/reports/monthly/installedcapacity/2019/installed_capacity-06.pdf)

Table 8.3 shows that highest installed capacity of power among the NE states found in Assam (1714.85 MW), followed by Tripura (756.46 MW) and Meghalaya (582.21 MW). Total install capacity of power in the whole NE states found 4341.94 MW in 2019 which is higher than the all the NE states. Though in India, there are four type of power installed capacity, but in the NE states we have found only three type sources where power are installed. These are Thermal, Hydro and Res (MNRE). Among these three, NE states highest depends on the Thermal power in case of power installation followed by Hydro and Res (MNRE). The highest installed capacity of thermal power found in Assam (1196.79 MW) followed by Tripura (662.55 MW) and Meghalaya (155.29 MW). In case of Hydro, Assam and Meghalaya has found the highest capacity to installed power. Regarding the Res (MNRE), Arunachal Pradesh (136.50 MW) has the highest capacity to installed power followed by Assam (60.98 MW).

**Table 8.4**  
**Total Length of Roads and Railways in Northeast region**

| State             | Roads (in Kms.) | Railways (in Kms.) |
|-------------------|-----------------|--------------------|
| Arunachal Pradesh | 30692           | 12                 |
| Assam             | 329520          | 2443               |
| Manipur           | 24776           | 1                  |
| Meghalaya         | 21727           | -                  |
| Mizoram           | 8108            | 2                  |
| Nagaland          | 36114           | 11                 |
| Sikkim            | 8243            | -                  |
| Tripura           | 39365           | 193                |
| NER               | 498545          | 2662               |
| <b>All India</b>  | <b>4703293</b>  | <b>66687</b>       |

Source: NEDfi Data Bank

Table 8.4 shows the road infrastructure among the north-eastern states in India is not much satisfactory than the other parts of India. Except Assam, the length of road in the other NE states is comparatively very. The lowest length of the road is found in Mizoram (8108 kms) followed by Sikkim (8243 kms). On the other hand in case rail transport, out of the eight NE states two states still does not have any rail connectivity viz., Sikkim and Meghalaya. Out of the total length of the rail transport in NE states, majority of rail transport is found in Assam (2443 kms) and only 1 km rail transport is found in Manipur.

**Table 8.5**  
**Average Population and Average Area Served Per Post Office in the North Eastern Region as on**  
**31.03.2017**

| State             | No. of Post Offices | Average population served per Post Office (Persons) | Average area served per Post Office (In Sq. Kms) |
|-------------------|---------------------|---|--|
| Arunachal Pradesh | 4012                | 7769  | 19.55  |
| Assam             | 302                 | 4579  | 277.28   |
| Manipur           | 701                 | 3882  | 31.85  |
| Meghalaya         | 491                 | 6043  | 45.66  |
| Mizoram           | 389                 | 2805  | 54.19  |
| Nagaland          | 331                 | 5980  | 50.09  |
| Sikkim            | 711                 | 6809  | 14.76  |
| Tripura           | 209                 | 2909  | 33.97  |

*Source: Department of Posts, Ministry of Communications, Gol*

Table 8.5 reveals that highest number of post office is found in Arunachal Pradesh (4012) followed by Sikkim (711) and Manipur (701). Tripura has found the lowest number of post office (209) followed by Assam (302). On the other hand, average population per post office served to be found highest in Arunachal Pradesh (7769 persons per post office) followed by Sikkim (6809 persons per post office) and only 2805 persons served per post office in Mizoram. However, in case of average area served by per post office (in Sq. km) is found to be highest in Assam (around 277 post offices) followed by Nagaland (around 34 post offices) and lowest is in Sikkim (around 15 post offices) and Arunachal Pradesh (around 20 post offices).

\

**Table 8.6**  
**State wise Wire line and Wireless connection in Northeast India as on 31<sup>st</sup> March 2016**

| States            | Wireline | Wireless   | Total      |
|-------------------|----------|------------|------------|
| Arunachal Pradesh | 24092    | 957729     | 981821     |
| Assam             | 160542   | 18532364   | 18692906   |
| Manipur           | 21448    | 2569768    | 2591216    |
| Meghalaya         | 19409    | 1902567    | 1921976    |
| Mizoram           | 18358    | 1071387    | 1089745    |
| Nagaland          | 13498    | 1720471    | 1733969    |
| Sikkim            | NA       | 585456     | 585456     |
| Tripura           | 27524    | 2761750    | 2789274    |
| All India         | 25224568 | 1034108663 | 1059333231 |

Source: NEDfi Data Bank

Table 8.6 shows that the wireless and wire line connection among the NE states. It is observed that the number of wireless connection in the NE states is comparatively high than the Wire line connection in the NE states. The highest connection (both wireless and wire line) is found in Assam followed by Tripura among the NE states and the lowest is found in Sikkim. In case of wireless connection, Assam is in top position followed by Tripura and Sikkim is in bottom. Similarly, Assam is found in Top position in case of wire line connection but Meghalaya is in bottom position.

**Table 8.7**  
**Tele-density in Northeastern States in various years**

| Year    | Northeast | All India |
|---------|-----------|-----------|
| 2010-11 | 44.26     | 70.89     |
| 2011-12 | 52.36     | 78.66     |
| 2012-13 | 52.92     | 73.32     |
| 2013-14 | 55.13     | 75.23     |
| 2014-15 | 60.88     | 79.36     |
| 2015-16 | 64.43     | 83.4      |

Source: NEDfi Data Bank

In case of teledensity in the NE states has been increased but it is compartiively very low than the all India level. Table 5 shows that in the year 2011-12, the teledensity in the NE states was 44.26 which is found to increase 64.43 in the year 2015-16. But, in all India level it was increased from 70.89 to 83.4 during the same time period.

## **8.7 Market and Banking**

### **8.7.1 North Eastern Development Finance Corporation Ltd. (NEDFi)**

The North Eastern Development Finance Corporation Ltd (NEDFi) is a Public Limited Company registered under the Companies Act 1956 on 9<sup>th</sup> August, 1995. It is notified as a Public Financial Institution under Section 4A of the said Act and was registered as an NBFC in 2002 with RBI. The shareholders of the Corporation are IDBI, SBI, LIC, SIDBI, ICICI, IFCI, SUUTI, GIC and its subsidiaries. The management of NEDFi has been entrusted upon the Board of Directors comprising representatives from shareholder institutions, DoNER, State Governments and eminent persons from the NE Region and outside having wide experience in industry, economics, finance and management.

In 1994, the I. K. Borthakur Committee Report conceptualized the formation of a North-Eastern Development Bank to cater to the needs of the region. Following the report, the then Finance Minister, Dr. Manmohan Singh, in his budget speech in March 1995 announced setting up of a development bank for the North Eastern States of India. At the time of its establishment, the corporation was placed under the Ministry of Finance, Banking Division for administrative purpose. However, with the formation of Ministry of Development of North Eastern Region (DoNER), Govt. of India in 2004, the Corporation has been placed under the Ministry of DoNER for administrative purpose.

NEDFi provides financial assistance to micro, small, medium and large enterprises for setting up industrial, infrastructure and agri-allied projects in the North Eastern Region of India and also Microfinance through MFI/NGOs. Besides financing, the Corporation offers Consultancy & Advisory services to the state Governments, private sectors and other agencies. It conduct sector or state specific studies under its Techno-Economic Development Fund (TEDF) and is the designated nodal agency for disbursal of Govt. of India incentives to the industries in the North-East India under North–East Industrial and Investment Promotion Policy 2007 (NEIIPP 2007). The promotional activities include mentoring through BFC, Water Hyacinth Craft, NEDFi Convention Center, NEDFi Pavillion etc.

NEDFi is the premier financial and development institution of the North East of India whose main objectives as per its Memorandum of Association are to carry on and transact the business of providing credit and other facilities for promotion, expansion and modernization

of industrial enterprises and infrastructure projects in the North Eastern Region of India, also carry on and transact business of providing credit and other facilities for promotion of agro-horticulture, medicinal and sericulture plantation, aquaculture, poultry, dairy and animal husbandry development in order to initiate large involvement of rural population in the economic upsurge of the society and faster economic growth of the region. NEDFi aims to be a dynamic and responsive organization to catalyze the economic growth of the North-East. It assists in the efficient formation of fixed assets by identifying, financing and nurturing eco-friendly and commercially viable projects in the region. It strives to achieve highest standard of quality in terms of services to the entrepreneurs by rendering in-depth counseling, timely advices and assistance for building quality enterprises on a sustained basis.

### **8.7.2 Small Industries Development Bank of India (SIDBI)**

The SIDBI (Small Industries Development Bank of India) is a wholly owned subsidiary of IDBI (Industrial Development Bank of India), established under the special Act of the Parliament 1988 which became operative from April 2, 1990. The role of Small Industries Development Bank of India (SIDBI), as the principal financial institution for the promotion, financing and development of industry in the small scale sector is mainly two fold; Financing and Developmental. In the sphere of financing, SIDBI operates a number of schemes tailored to meet the specific requirements of target groups and activities. While the financial assistance to small scale units is largely provided under refinance scheme operated through a large network of bands and State level financial institutions, SIDBI is extending direct assistance for development of other important areas like infrastructure, marketing organizations, supply of raw materials, ancillary development and technology upgradation.

### **8.7.3 Promotional & Developmental Activities**

SIDBI has put greater emphasis on the promotional and developmental (P&D) needs of the Micro Small and medium Enterprises (MSMEs) in NER for their capacity building and holistic development. It may be noted that the Committee on Financial Sector Plan for the North Eastern Region under Smt. Usha Thorat, Dy. Governor, RBI has made certain recommendations for SIDBI to implement its developmental programmes, viz. Cluster Development Programmes and Rural Industries Programme in all the States of North East.

SIDBI has geared up to deepen its support in the recommended areas. The support of the Bank under various promotional and developmental programmes in the NER, are as under:

**a) Rural Industries Programme:** The rural industries programme aims at creation of employment through enterprise promotion in rural and semi-urban areas and addressing problems such as rural unemployment, urban migration, under-utilisation of know-how and latent rural resources. Under the Bank's Flagship P&D Programme, viz. RIP, 22 districts in NER have so far been covered, out of which, 12 are currently under implementation.

**b) Entrepreneurship Development Programme:**

The Entrepreneurship Development Programme aims at promotion of self employed ventures. It also enables in order to generate employment opportunities, especially in far flung and rural areas targeting less privileged sections of the society like women and SC/ST. The EDPs are conducted in the cluster or for a heterogeneous group of entrepreneurs. The Bank has conducted around 288 EDPs benefiting around 13141 participants till June 30, 2011.

**c) Cluster Development Programme :** The Cluster Development Programmes is a comprehensive package of business development services, such as technology upgradation, capacity building, environment marketing, credit quality WTO, information dissemination etc.

**d) Skill-cum-technology Upgradation Programme:** Skill-cum-Technology Upgradation Programme is structured to improve the performance of existing MSME unit by developing/strengthen managerial skill and technical competence of the entrepreneur and senior executives of small enterprises. STUP also aims at creating awareness amongst the SME units on process improvements, technological developments etc. and inducing the units to upgrade their technological level. The Bank has so far conducted over 133 STUPs/Skill Development Programme benefiting over around 4192 participants in the entire NER as on June 30, 2011.

e) Strengthening SME Sector with a view to strengthening the SME sector, the Bank supports reputed management/technology institution for offering management development programmes.

**f) Marketing Initiatives:** As an important ingredient of its P&D initiatives, the Bank supports various marketing events with the intention of providing appropriate marketing linkages to the trainees of EDPs and RIP, etc.

### **Institution Building:**

- i) North Eastern Development Finance Corporation Ltd. (NEDFi)-SIDBI is one of the co-promoters of NEDFi which is set up at Guwahati as the Development Finance Corporation for the North East. SIDBI has contributed a sum of Rs.10 crore towards the paid-up capital of the agency. NEDFi aims at catalysing the economic development of the region by extending assistance for the efficient formation of fixed assets through identification, financing and nurturing of eco-friendly and commercially viable industrial and infrastructure projects in the Region.
- ii) **Indian Institution of Entrepreneurship (Iie), Guwahati-sidbi** is one of the founder member of IIE set up at Guwahati. An amount of Rs.25 lakh has been extended towards corpus fund for setting up the Institute. IIE is undertaking entrepreneurial training activities in the Region

### **Other Initiatives**

- i) Assistance was sanctioned to North Eastern Industrial & Technical Consultancy Organisation Ltd (NEITCO) for preparation of 100 project profile to tiny sector projects for the North Eastern Region.
- ii) SIDBI in association with Exim Bank, also conducted a workshop on export oriented fruit processing Industry for entrepreneurs having fruit processing units in North Eastern Region.
- iii) The Bank has supported various vocational training and marketing/seminars/exhibitions covering over 3500 participants from MSME sector in the NER.
- iv) Counseling centre for Micro and Small Enterprises was set up initially for a period of one year in FY 2010 jointly by SIDBI and United Bank of India for providing counseling services to potential entrepreneurs.
- v) Project profile have been prepared for 100 micro sector projects having potential in North Eastern Region and was released by Shri P. Chindambram, Hon'ble Finance Minister Govt. of India in the presence of Hon'ble Prime Minister on Oct. 04, 2008.



#### **8.7.4 Industrial Development Bank of India (IDBI)**

Industrial Development Bank of India (IDBI) established under Industrial Development Bank of India Act, 1964, is the principal financial institution for providing credit and other facilities for developing industries and assisting development institutions. Till 1976, IDBI was a subsidiary bank of RBI. In 1976 it was separated from RBI and the ownership was transferred to Government of India. IDBI is the tenth largest bank in the world in terms of development. The National Stock Exchange (NSE), the National Securities Depository Services Ltd. (NSDL), Stock Holding Corporation of India (SHCIL) are some of the Institutions which has been built by IDBI. IDBI consist of a Board of Directors, consisting of a chairman and Managing Director appointed by the Government of India, a Deputy Governor of the RBI nominated by that bank and 20 other Directors are nominated by the Central Government.

The board had constituted an Executive Committee consisting of 10 Directors, including the Chairman and Managing Director. The executive committee is empowered to sanction financial assistance. The Head office of IDBI is located in Mumbai. The bank has five regional offices, one each in Kolkata, Guwahati, New Delhi, Chennai and Mumbai. Besides the bank have 21 branch offices.

#### **Developmental Activities of IDBI:**

##### **(1) Promotional Activities:**

In fulfillment of its developmental role, the bank continues to perform a wide range of promotional activities relating to developmental programmes for new entrepreneurs, consultancy services for small and medium enterprises and programmes designed for accredited voluntary agencies for the economic upliftment of the underprivileged.

These include entrepreneurship development, self-employment and wage employment in the industrial sector for the weaker sections of society through voluntary agencies, support to Science and Technology Entrepreneurs' Parks, Energy Conservation, Common Quality Testing Centers for small industries.

##### **(2) Technical Consultancy Organisations:**

With a view to making available at a reasonable cost, consultancy and advisory services to entrepreneurs, particularly to new and small entrepreneurs, IDBI, in collaboration with other

All-India Financial Institutions, has set up a network of Technical Consultancy Organisations (TCOs) covering the entire country. TCOs offer diversified services to small and medium enterprises in the selection, formulation and appraisal of projects, their implementation and review.

### **(3) Entrepreneurship Development Institute:**

Realising that entrepreneurship development is the key to industrial development; IDBI played a prime role in setting up of the Entrepreneurship Development Institute of India for fostering entrepreneurship in the country. It has also established similar institutes in Bihar, Orissa, Madhya Pradesh and Uttar Pradesh. IDBI also extends financial support to various organisations in conducting studies or surveys of relevance to industrial development.

#### **The main functions of IDBI are discussed below:**

- (i) To provide financial assistance to industrial enterprises.
- (ii) To promote institutions engaged in industrial development.
- iii) To provide technical and administrative assistance for promotion management or expansion of industry.
- (iv) To undertake market and investment research and surveys in connection with development of industry.

#### **IDBI Assistance:**

**The IDBI provides financial assistance either directly or through some specified financial institutions:**

##### ***(i) Direct Assistance:***

The IDBI grants loans and advances to industrial concerns. There is no restriction on the upper or lower limits for assistance to any concern itself. The bank guarantees loans raised by industrial concerns in the open market from the State Co-operative Banks, the Scheduled Banks, the Industrial Finance Corporation of India (IFCI) and other 'notified' financial institutions.

##### ***(ii) Indirect Assistance:***

The IDBI can refinance term loans to industrial concerns repayable within 3 to 25 years given by the IFCI, the State Financial Corporation and some other financial institutions and to SIDCs (State Industrial Development Corporations), Commercial banks and Cooperative

banks which extend term loans not exceeding 10 years to industrial concerns. IDBI subscribes to the shares and bonds of the financial institutions and thereby provide supplementary resources.

### 8.8 Further Readings:

1. Nayak P "Role of Financial Institutions in Promoting Entrepreneurship in Assam Small Scale Sector in Assam, "General Economics and Teaching 0509018, University Library of Munich, Germany. <https://ideas.repec.org/p/wpa/wuwpgt/0509018.html>
2. Haokip Thongkhola, India's Look East Policy: Prospects and Challenges for Northeast India, In Zahid Hussain (ed). India's Look East Policy and North East India: Achievements and Constraints, New Delhi: Concept Publishing, 2012
3. Sarma Amiya & Bezbaruah M P , Industry in the Development Perspective of North East India, Dialogue January - March, 2009 , Volume 10 No. 3
4. Baishya Kankana, Industrial Development in North East India: Challenges and Issues, [https://www.academia.edu/11767076/Industrial\\_Development\\_in\\_NE\\_India](https://www.academia.edu/11767076/Industrial_Development_in_NE_India)
5. Annual Report on Micro, Small, Medium Enterprise, various Years
6. NEDFi Data Bank

## UNIT- IX

### Section - I

#### Fiscal issues of North Eastern states

#### Structure

- 9.0 Introduction
- 9.1 Objectives
- 9.2 Receipts
- 9.3 Expenditure
- 9.4 Concept of Deficit
- 9.5 Expenditure
- 9.6 Deficits
- 9.7 Outstanding Debt and Liabilities
- 9.8 14<sup>th</sup> Finance Commission's recommendation in share of Central Taxes
- 9.9 Let us sum up
- 9.10 Key terms
- 9.11 Long type question.
- 9.12 Short type questions:
- 9.13 Suggested Readings

#### 9.0 Introduction:

In order to understand the fiscal issues we need to understand the basic components of a budget. The budget has got two sides namely (i) Receipts and (ii) Expenditure

#### Receipts

##### (A) Revenue Receipts

- i. Tax Revenue
  - a) own tax revenue
  - b) share in central taxes
- ii. Non tax Revenue
  - a) grants from the centre
  - b) own non-tax revenue

##### (C) Capital Receipts

- a) Borrowings
- b) Non debt capital receipt's
- c) Recoveries of loan and advance

#### Expenditure

##### (B) Revenue Expenditure

- i. Social service
- ii. Economic service
- iii. interest payment
- iv. organ of the state

##### (D) Capital Expenditure

- i. Social Service
- ii. Economic service
- iii. Loan and Advance

## iv. Organ of the state

**9.1 Objectives:**

The objectives of the present unit are:

1. To understand the fundamental components of a budget.
2. To understand the different sources of revenue of the Government.
3. To understand the various types of expenditures.
4. To understand the implications of finance commission awards to the State Governments of North Eastern States.

**9.2 Receipts****Own tax revenue**

Generally all state and national government collect taxes. A state government collects taxes like state excise duties and other taxes like sales tax etc. (Now state GST). These types of collections are kept under own tax revenue head.

**Share in central taxes:**

Central government collects taxes like Income tax, corporation duty, export duty, imports duty etc. Finance commission decides about the sharing of centrally collected taxes between the centre and state government. As per 14<sup>th</sup> Finance commission 42% of the centrally collected taxes are distributed among the different states by a formula devised by finance commission.

**Non-tax revenue:**

The third important source of revenue to the state government is non-tax revenue. Under it, there are two important sub-components namely (i) Own non-tax revenue and (ii) Grants from the central government.

**Own non-tax revenue:** The state government collects different types of non-tax revenues like fees, fines, royalties etc. The examples are- (i) Patients pay some fee in government

hospitals for treatment (ii) Fines collected by Police (iii) Royalty received by the government from leasing out mines etc..These are kept under this head.

**Grants from the central government:** Apart from share in central taxes, the central government gives some grants to the state government under different programmes and schemes. These types of grants are kept under non-tax revenue.

### **Capital receipts:**

Under receipts side of a budget, capital receipt is the second important component. Capital receipts' has two sub-components namely (i) Borrowings (ii) Non-debt capital receipts.

**Borrowings:** The state Governments borrows from different agencies like central government and banking institutions like commercial banks, NABARD, pension funds etc. Further, they also issue public bond to raise revenue. Receipts through these agencies are treated as internal debt of the government.

**Non-Debt Capital receipts:** When the state government sells some public asset, the accrual is kept under this head. Examples are (i) Selling up of government land and old vehicles (ii) Disinvestment proceedings of public sector units etc.

**Recoveries of Loan and Advance:** The government gives loan to state public sector undertakings, and government servants. The recovery amount is kept under this head.

## **9.3 Expenditure**

The expenditure statement of the government is divided into two components (i) Revenue expenditure and (ii) Capital expenditure.

**(a) Revenue expenditure:** The expenditure which is of recurring type is known as revenue expenditure. The examples are (i) salary to employees (ii) Expenditure on petroleum (iii) office expenditure.

**Revenue Expenditure** has got four important components:

- (a) **Revenue expenditure in social service:** It includes revenue expenditure in Health, Education, Child nutrition and drinking water etc. These types of expenditures are known as Human Development Expenditure.
- (b) **Revenue expenditure in Economic service:** Here, revenue expenditure incurred in economic service like agriculture, industry tourism etc. are included.

- (c) **Interest payment:** Interest paid by the government for its past borrowing is kept here. It is one important component of revenue expenditure.
- (d) **Organs of the state:** The government spends in maintaining various functionaries of the government like State Assembly, Governor, and Chief Minister etc. These recurring expenditures are kept here as **Revenue expenditure under organs of the state.**

**(b) Capital expenditure:** The expenditure which are meant for creation of Capital assets are kept under Developmental Capital expenditure and others are under Non-Developmental capital expenditure. So, capital expenditure under social service (Health, Education, Drinking water, child nutrition etc.) are known as developmental. Capital expenditure under loan and advance, repayment of past debt and organs of the states are known as non-developmental capital expenditure.

#### 9.4 Concept of Deficit

- a) **Revenue Deficit:** The difference between Revenue receipts and Revenue expenditure is known as Revenue Deficit; generally a surplus Revenue deficit is a healthy sign of a budget.
- b) **Fiscal Deficit:** It is defined as Revenue receipts + Non Debt Capital receipts – Total expenditure.
- c) **Primary Deficit:** It is defined as Fiscal deficit-Interest payment

With the background above, the fiscal issues of north-eastern states are discussed below;

#### Own tax Revenue

Table below 9.1 gives the details about own tax revenue of the north-eastern states

**Table 9.1**  
**Own tax Revenue (As a % of GSDP)**

| States                         | 2004-05 | 2009-10 | 2014-15(BE) |
|--------------------------------|---------|---------|-------------|
| Arunachal Pradesh              | 1.4     | 2.3     | 4.0         |
| Assam                          | 5.1     | 5.2     | 6.3         |
| Manipur                        | 1.6     | 2.4     | 3.8         |
| Meghalaya                      | 3.2     | 3.5     | 5.0         |
| Mizoram                        | 1.5     | 2.0     | 2.6         |
| Nagaland                       | 1.3     | 1.7     | 2.5         |
| Sikkim                         | 5.1     | 3.6     | 4.3         |
| Tripura                        | 2.7     | 3.4     | 4.5         |
| All states (All India) average | 5.6     | 5.6     | 6.5         |

**Source: Report of 14<sup>th</sup> Finance Commission**

In 2004-05 own tax revenue at all India average was 5.6% of GSDP. The states like Arunachal Pradesh, Manipur, Mizoram, Nagaland and Tripura had very low level of own tax revenue, where as the states like Assam and Sikkim had comparatively better own tax revenue.

In 2009-10, all the states have improved their own tax improved their own tax revenue as a % of GSDP, except Sikkim. However, they were much below the national average. Assam performed better, as compared to others but the figure did not change much.

In 2014-15, own tax revenue of all the states substantially changed. At all India average it became 6.5%. For the states like Arunachal Pradesh, Assam, Meghalaya, Sikkim and Tripura, it became above 4 percent of GSDP. In the states like Mizoram and Nagaland, though there was improvement, but it remained around 2.5 percent of GSDP.

In a nut cell we can say that for all the North Eastern states, there was substantial improvement in own tax revenue collection in 2014-15 as compared to previous periods. However, they are yet to reach all India average in their own tax revenue collection effort.

### **Total Transfer from the Central Government**

Total transfer from the Central Government is composed of two components of receipts side of budget. First one is share in Central taxes and the second is grants from the centre. Table 5.2 gives the total transfer from the Central government to North Eastern states.

**Table 9.2**  
**Total transfer from Central Government (% of GSDP)**

| <b>States</b>                  | <b>2004-05</b> | <b>2009-10</b> | <b>2014-15(BE)</b> |
|--------------------------------|----------------|----------------|--------------------|
| Arunachal Pradesh              | 36.7           | 48.3           | 58.8               |
| Assam                          | 11.5           | 12.7           | 20.7               |
| Manipur                        | 31.0           | 41.6           | 53.1               |
| Meghalaya                      | 18.4           | 21.5           | 38.1               |
| Mizoram                        | 51.7           | 51.9           | 55.0               |
| Nagaland                       | 28.8           | 32.4           | 56.9               |
| Sikkim                         | 46.7           | 27.3           | 39.1               |
| Tripura                        | 24.3           | 24.3           | 32.4               |
| All states (All India) average | 4.1            | 4.8            | 6.5                |

**Source: Report of 14<sup>th</sup> Finance Commission**

Table 9.2 shows dependency of the states on Central Government. In 2004-05 the highest dependency on Central inflow (as a percent of GSDP) was observed in the states of Mizoram, Sikkim and Arunachal Pradesh and the least was in Assam. The All India average was 4.1%.



In 2009-10, again the highest dependency was observed in Mizoram, Arunachal Pradesh and Manipur. In 2014-15, there was substantial improvement in Central transfer occurred the states like Arunachal Pradesh, Manipur, Mizoram and Nagaland, where Central inflow constitutes more than 50% of GSDP.

Thus, we can observe that central inflow is quite substantial in North Eastern States as compared to all India average.

## 9.4 Expenditure

### (a) Revenue Expenditure

Table 9.3 gives the Revenue expenditure of North Eastern states

**Table 9.3**  
**Revenue Expenditure (% of GSDP)**

| States                         | 2004-05 | 2009-10 | 2014-15(BE) |
|--------------------------------|---------|---------|-------------|
| Arunachal Pradesh              | 43.3    | 49.4    | 53.1        |
| Assam                          | 19.2    | 22.1    | 27.5        |
| Manipur                        | 32.2    | 36.5    | 50.9        |
| Meghalaya                      | 24.3    | 25      | 40.8        |
| Mizoram                        | 52      | 21.4    | 52.8        |
| Nagaland                       | 28.9    | 30.9    | 50.3        |
| Sikkim                         | 99.1    | 44.6    | 41.8        |
| Tripura                        | 24.5    | 27.4    | 28.4        |
| All states (All India) average | 12.4    | 12.3    | 13.9        |

*Source: Report of 14<sup>th</sup> Finance Commission*

In 2004-05, at all India level, Revenue expenditure was 12.4% of GSDP. All the North-Eastern states had higher revenue expenditure as compared to national average. The highest was observed in Sikkim, where it was 99% of GSDP. The other states where revenue expenditure was substantially high are Arunachal Pradesh and Mizoram.

In 2009-10, revenue expenditure remained almost same as that of 2004-05. Substantial increase was observed in Arunachal Pradesh and Manipur.

In 2014-15, substantial increment in revenue expenditure took place in Arunachal Pradesh, Manipur, Mizoram and Nagaland where it was above 50% of GSDP.

So, we can infer that for all North-Eastern states, there was substantial improvement in revenue expenditure as compared to national average over time. The states, where it is substantial are Arunachal Pradesh, Manipur, Mizoram and Nagaland. Only in Assam and Tripura it is around 27-28% of GSDP.

### (b) Capital Expenditure

Here due to paucity of Comparable data for all the North-Eastern states, we have taken total capital expenditure which includes both Developmental and Non-developmental capital expenditure. Table 9.4 gives the detail.

**Table 9.4**  
**Capital Expenditure (% of GSDP)**

| States                         | 2004-05 | 2009-10 | 2014-15(BE) |
|--------------------------------|---------|---------|-------------|
| Arunachal Pradesh              | 10.9    | 16.5    | 15.9        |
| Assam                          | 5.9     | 2.8     | 4.3         |
| Manipur                        | 10.5    | 19.3    | 11.7        |
| Meghalaya                      | 4.3     | 4.0     | 7.3         |
| Mizoram                        | 13.6    | 11.4    | 10.5        |
| Nagaland                       | 6.5     | 9.4     | 14.1        |
| Sikkim                         | 20.4    | 11.2    | 14.2        |
| Tripura                        | 7.2     | 8.8     | 13.6        |
| All states (All India) average | 2.3     | 2.5     | 2.7         |

*Source: Report of 14<sup>th</sup> Finance Commission*

At the all India level Capital expenditure revolves around 2.3 to 2.7 percent of GSDP during 2004-05 to 2014-15. In Arunachal Pradesh, there was an increase from 10.9% of GSDP to 15.9% during 2004-05 to 2014-15. However, a decline is observed in the Assam (5.9% to 4.3%), Mizoram (13.6% to 10.5%) and Sikkim (20.4% to 14.2%) in Capital expenditure during 2004-05 to 2014-15. An increasing trend is observed in Arunachal Pradesh, Manipur, Meghalaya, Nagaland and Tripura during the same time period. As we know, that the developmental capital expenditure is meant for capital creation in the Hilly state, the share is high and increasing over time, which is a good sign for the North-Eastern states.

## 9.5 Deficits

### (a) Revenue Deficit

The difference between Revenue receipt and Revenue expenditure is the Revenue Deficit. A surplus revenue account is a healthy sign for the state finance as revenue surplus is used for capital expenditure. Following table 9.5 gives the Revenue deficit data of all North Eastern States.

**Table 9.5**  
**Revenue Deficit (% of GSDP)**

| States            | 2004-05 | 2009-10 | 2014-15(BE) |
|-------------------|---------|---------|-------------|
| Arunachal Pradesh | 0.2     | -8.0    | -14.5       |
| Assam             | 0.5     | 1.4     | -2.3        |
| Manipur           | -1.8    | -10.4   | -8.00       |
| Meghalaya         | 0.8     | -2.1    | -5.1        |
| Mizoram           | -4.00   | -5.0    | -7.5        |
| Nagaland          | -2.7    | -4.4    | -10.4       |
| Sikkim            | -9.7    | -8.4    | -11.0       |
| Tripura           | -4.4    | -1.2    | -9.4        |

'+' indicates Deficit and '-' indicates surplus

**Source: Report of 14<sup>th</sup> Finance Commission**

Table 9.5 reveals that in 2004-05 except three states namely Arunachal Pradesh, Assam and Meghalaya, all the states were enjoying revenue surplus. In 2009-10, only Assam had revenue deficit. However, in 2014-15 all the North-Eastern states are enjoying revenue surplus, highest being enjoyed by Arunachal Pradesh, Nagaland, Sikkim and Tripura. Therefore, we may infer that the fiscal healths of all North-Eastern States are sound.

#### **(b)Gross Fiscal Deficit**

In term of Budget identity, Gross Fiscal Deficit shows the quantum of borrowing by the sub national governments. Table 9.6 gives the Gross Fiscal Deficit of all North-Eastern States.

**Table 9.6**  
**Total transfer from Central Government (% of GSDP)**

| States            | 2004-05 | 2009-10 | 2014-15(BE) |
|-------------------|---------|---------|-------------|
| Arunachal Pradesh | 11.1    | 5.8     | 1.4         |
| Assam             | 3.9     | 4.2     | 2.0         |
| Manipur           | 8.8     | 8.9     | 3.7         |
| Meghalaya         | 4.8     | 1.8     | 2.2         |
| Mizoram           | 8.8     | 5.9     | 2.7         |
| Nagaland          | 3.7     | 5.0     | 3.7         |
| Sikkim            | 10.7    | 2.8     | 3.2         |
| Tripura           | 2.7     | 7.5     | 4.2         |

**Source: Report of 14<sup>th</sup> Finance Commission**

In 2004-05, Gross Fiscal Deficit (GFD) was highest for Arunachal Pradesh (11.1%). 12<sup>th</sup> Finance Commission proposed to reduce it to 3% of GSDP as a result FRBM was enacted in the state. As a result of which GFD was reduced substantially to 5.8% in 2009-10 and further to 1.4% in 2014-15. All the north-eastern states enacted FRBM act and in 2014-15, there was substantial reduction in GFD of all states. However, in 2014-15 the states like

Manipur, Nagaland, Sikkim and Tripura, the GFD was found to be at a higher side and maximum was observed in Tripura (4.2%), Manipur (3.7%) and Nagaland 3.7%.

### 9.7 Outstanding Debt and Liabilities

Borrowing or Gross Fiscal deficit leads to accumulation of debt. 12<sup>th</sup> Finance Commission recommended 30% of GSDP as the safe limit to maintain Debt sustainability of the State Government and recommended for enactment of state level Fiscal Responsibility and Budget Management Act (FRBM). Following it, all State Government enacted FRBM Act.

Table 9.7 below gives the total outstanding Debt and Liabilities of the North-Eastern states.

**Table 9.7**  
**Outstanding Debt and Liabilities (% of GSDP)**

| States            | 2004-05 | 2009-10 | 2014-15(BE) |
|-------------------|---------|---------|-------------|
| Arunachal Pradesh | 51.0    | 42.7    | 36.2        |
| Assam             | 32.9    | 29.7    | 21.7        |
| Manipur           | 60.00   | 66.9    | 49.2        |
| Meghalaya         | 33.1    | 29.9    | 25.9        |
| Mizoram           | 101.1   | 69.00   | 30.7        |
| Nagaland          | 48.2    | 51.9    | 47.2        |
| Sikkim            | 63.7    | 37.3    | 29.9        |
| Tripura           | 47.00   | 37.4    | 33.00       |

*Source: Report of 14<sup>th</sup> Finance Commission*

In 2004-05, outstanding liabilities of all the North-Eastern states were above the limit prescribed by 12<sup>th</sup> Finance Commission. The highest was observed in Mizoram, where the ratio exceeded 100% of GSDP. In Assam and Meghalaya it was comparatively low.

In 2009-10, outstanding liabilities of all states got reduced except Manipur. Two states namely Assam and Meghalaya achieved the target fixed by 12<sup>th</sup> Finance Commission. However, in Manipur and Mizoram liabilities was substantially higher than the other states.

In 2014-15, there was further decline in outstanding liabilities as a % of GSDP for all states. The maximum was observed in Manipur, Nagaland and Arunachal Pradesh and the lowest was observed in Assam.

### 9.8 14<sup>th</sup> Finance Commission's recommendation in share of Central Taxes

14<sup>th</sup> Finance Commission substantially increased the share of state in divisible pool of centrally collected taxes. 13<sup>th</sup> Finance Commission gave a share of 32 percent and 14<sup>th</sup>

Finance Commission gave a share of 42% of the centrally collected taxes to states. Inter-se share was finalised after giving the following weight age in the sharing formula of 14<sup>th</sup> Finance Commission, as given in table 9.8.

**Table 9.8**

| <b>Weights fixed by 14<sup>th</sup> Finance Commission for sharing Central taxes</b> |             |
|--|-------------|
| Criteria   | Weights (%) |
| Population   | 17.5%       |
| Demographic Change   | 10%         |
| Income Distance  | 50%         |
| Area   | 15%         |
| Forest Cover   | 7.5%        |

On the basis of the weights recommended by 13<sup>th</sup> and 14<sup>th</sup> Finance Commission the share of the different north-eastern states is as follows (Table 9.9).

**Table 9.9: Inter-se share of States (%)**

|                         | 13 <sup>th</sup> Finance Commission | 14 <sup>th</sup> Finance Commission |
|-------------------------|-------------------------------------|-------------------------------------|
| Arunachal Pradesh       | 0.328                               | 1.370                               |
| Assam                   | 3.628                               | 3.311                               |
| Manipur                 | 0.451                               | 0.617                               |
| Meghalaya               | 0.408                               | 0.642                               |
| Mizoram                 | 0.269                               | 0.460                               |
| Nagaland                | 0.314                               | 0.498                               |
| Sikkim                  | 0.239                               | 0.367                               |
| Tripura                 | <u>0.511</u>                        | <u>0.642</u>                        |
| <b>Total N.E states</b> | <b>6.148</b>                        | <b>7.907</b>                        |

*Source: Report of 14<sup>th</sup> Finance Commission*

Table 9.9 shows inter-se share of different north-eastern states in central taxes excluding service tax as recommended by 13<sup>th</sup> and 14<sup>th</sup> Finance Commission. Out of eight states all states

except Assam had an increase in their respective share in central taxes. The maximum gain in share was achieved by Arunachal Pradesh in 14<sup>th</sup> Finance Commission award as compared to 13<sup>th</sup> Finance Commission. Taking all the states together, 13<sup>th</sup> Finance Commission gave a share of 6.148 percent to North-East, where as 14<sup>th</sup> Finance Commission gave a share of 7.907% out of the total divisible pool of central taxes (excluding service tax). Thus, 14<sup>th</sup> Finance Commission award was boon to north-eastern states in general and Arunachal Pradesh in particular.

### **9.9 Let us sum up:**

- The North-Eastern States are basically dependent on Central taxes except the State of Assam.
- The States like Arunachal Pradesh, Manipur, Mizoram, Nagaland and highly dependent on central transfer, where the Assam is least dependent.
- Own tax revenue base of the North Eastern States except Assam is low.
- Data Revenue and Capital expenditure of all the states are high as compared to national average.
- All the north Eastern states enjoy revenue surplus in recent times.
- Gross Fiscal Deficit of all the States is declining over time and is within manageable level.
- During 2004-05, total outstanding debt and liabilities of all North Eastern States was quite high, which has declined over time. However, except Assam, Meghalaya, Sikkim, Mizoram all other states have little bit higher level of outstanding liabilities in 2014-15.
- In the centrally collected taxes (except service tax) 13<sup>th</sup> Finance Commission gave a share of 6.148 percent, where as 14<sup>th</sup> Finance Commission gave a share of 7.907 percent.
- The gain of Arunachal Pradesh in the award of 14<sup>th</sup> Finance Commission is maximum, where it got a share of 1.37%. In 13<sup>th</sup> Finance Commission award it got a share of 0.328%.

**Check Your Progress**

Answer in 50 words

- (1) Define Own Tax Revenue.
- (2) What is Transfer from the Central Government ?
- (3) Differentiate between Revenue expenditure and Capital Expenditure
- (4) What are the sources of borrowings of state government ?
- (5) What is fiscal Deficit ?

**9.10 Key terms:**

1. Revenue Receipts
2. Tax revenue
3. Non-tax revenue
4. Own non-tax revenue
5. Grants from the Center
6. Share in Central taxes
7. Finance Commission
8. Revenue Deficit
9. Fiscal Deficit

**9.11 Long type question.**

1. Explain the different component of a Budget.
2. What is Revenue Deficit and Fiscal Deficit?
3. Explain the role of central transfer in the budget of North Eastern States.
4. Analyse the trend in revenue and Capital expenditure of North Eastern States?
5. Examine the trend in revenue and Fiscal Deficit of North Eastern States.
6. Critically analyse the outstanding Debt and liabilities of North Eastern States.
7. Explain the 13<sup>th</sup> and 14<sup>th</sup> Finance Commission's award to North Eastern States.

**9.12 Short type questions:**

Write short notes on

1. Revenue Receipt.
2. Capital Receipt
3. Revenue Expenditure
4. Capital Expenditure
5. Fiscal Deficit
6. Revenue Deficit.

**9.13 Suggested Readings**

- (1) Report of 13<sup>th</sup> Finance Commission, Government of India 2009
- (2) Report of 14<sup>th</sup> Finance Commission, Government of India 2014



## UNIT-X

### Section - II

#### Fiscal issues of North Eastern states

#### Structure

- 10.0 Introduction
- 10.1 Objectives
- 10.2 Types of Planning
- 10.3 Economic Planning in India
  - 10.3.1 Objectives of Economic Planning in India
  - 10.3.2 Evaluation of the Five Year Plans
  - 10.3.3 NITI (National Institution for Transforming India) AAYOG
  - 10.3.4 Regional Disparities in Growth rates
- 10.4 Five Year Plans and North Eastern States of India
- 10.5 Problems and Prospects of North East Economy in the background of economic liberalisation of India- Opening of NE economy
- 10.6 Key Words
- 10.7 Check Your Progress
- 10.8 Long Type Questions
- 10.9 Suggested Reading

#### 10.0 Introduction

#### Planning: Meaning and Importance

Economic Planning is defined as “a continuous process which involves decisions, or choices, about alternative ways of using available resources, with the aim of achieving particular goals at some time in the future.” A central authority, like the State, possessing the powers of implementation, does the planning.

#### Importance of Planning:

Planning plays an important role in the country especially in the Underdeveloped Country like India for the following reasons.

**1. Limited resources:** Since the resources- physical, natural, capital or human, are scarce, planning provides a method of rational and considered choice for securing the optimum combination of inputs.

**2. The need for social justice:** In a free enterprise economy, market forces operate in such a way that economic growth do not necessarily trickle-down. Often the growth ignores those people who deserve attention and need. Therefore, in such situation Planning helps to identify those deficiencies in the economy and the social structure, which demand the largest attention from the standpoint of economic growth.

**3. Mobilisation of Resources and its allocation:**

Since the resources are constraints, the plan for mobilising resources and savings is a necessary counterpart of the scheme of investment. The resources has to be allocated and distributed equally in the different sectors of the economy. In developing countries like India, the choice of development projects should rest on social benefits rather than private profitability. Hence, the intervention of state becomes necessary to optimise social gain from the utilisation of scarce resources.

### **10.1 Objectives**

- (1) To understand meaning and objectives of Planning
- (2) To have an understanding of the planning process in the last few decades and the outcome in regional imbalance in North East India.
- (3) To have an idea of look East policy and its implication to North Eastern states of India.

### **10.2 Types of Planning:**

The economic planning can broadly be of two types-

**1. Indicative Planning:**

This type of planning is democratic in nature. In this type of planning, the sphere of state intervention is limited to a) formulation of a plan and b) adoption of indirect controls. The state can issue guidelines, and not directives, leaving it to the market forces to decide their course of action. The capitalist economy follow this type of planning.

**2. Imperative Planning:** The socialist economy follow this type of planning. It is totalitarian in nature and works based on directions. It is made imperative on the production units to follow the plan and to fulfil the targets.

However, in a mixed economy like India both indicative and imperative planning co-exist.

### **10.3 Economic Planning in India:**

The government of India set up the Planning Commission in 1950 to make an assessment of the material, capital and human resources of the country and to formulate a plan for its most effective and balanced utilisation of the country's resources. India's experience with the economic planning is unique one as it is within the framework of a democratic mixed economy.

The National Planning Commission was a non-statutory, non-constitutional body. The major functions of the Commission was to formulate a plan for the most effective and balanced utilisation of the country's resources. The main objectives of the Planning commission are the following:

1. To increase production to the maximum possible extent to achieve higher level of national and per capita income.
2. To achieve full employment.
- 3 To reduce the inequalities of income and wealth
4. To set up a socialist society based on equality, justice, and absence of exploitation.

The Indian economy is gradually moving towards indicative planning where the Planning Commission concerns itself with the building of a long-term strategic vision of the future and decides on priorities of the nation.

#### **10.3.1 Objectives of Economic Planning in India**

The government of India launched the first Five-Year Plan in 1951. It initiated a process of development aimed not merely at raising the standards of living of the people and opening out to them new opportunities for a richer and more varied life. This was sought to be achieved by planning for growth and social justice. The basic aims of Economic Planning in India in the earlier plans was to bring about rapid economic growth through development of agriculture, industry, power, transport and communications and all other sectors of the economy. It aimed to achieve higher living standards. Nehru and Gandhi had differed on what economic policy should be, but they agreed on the centrality of economic development goals a top priority after independence, The Nehruvian view- derived predominantly from Fabian socialism. It endorse the need for rapid development led by state economic activity and planning. Within this broad objective, the early plans laid emphasis on the following:

1. Increase in national income.
2. Pushing up the rate of investment.

3. Ensuring social justice and equity.
4. Increase in employment.
5. Elimination of poverty.
6. To improve the three high-priority areas- agricultural production, the manufacturing capacity and the balance of payments.

The Second and Third Five Year Plans elaborately discussed some of these objectives. The subsequent plans simply reiterated the same objectives. Although, the broad objectives of planning remained the same, the relative emphasis and priorities shifted as the process of growth went ahead. The Fifth and Sixth Five Year Plan accorded the top priority on removal of poverty and self-reliance. The Seventh Plan stressed the modernisation. Modernisation implies a shift in the sectoral composition of production, diversification of activities and advancement of technology and institutional innovations to transform a feudal and colonial economy into a modern and independent economy.

The economic growth has been the major objective from the first to the present times. The country has witnessed fluctuations in the rate of economic growth but somehow it grows gradually. However, the social justice remain eluded and therefore the Eleventh Five year Plan introduced the objective of achieving faster and more inclusive growth which aims to provide greater opportunity for employment, greater capabilities, access to opportunities and security to protect the means of livelihood. The same objectives was carried forward in the Twelve Five Year Plans as well but with an aim to achieved sustainable developments

### **10.3.2 Evaluation of the Five Year Plans:**

The First Five-Year Plan (1951-56) provided an incisive general analysis of the nature of the country's development problem and various options from mobilising resources and achieving development with more equal distribution. In this period, India faced three major problems- influx of refugees, severe food shortage, and mounting inflation. The first five year plan gave special emphasise to the rural labor and land reforms. The plan projected an increase in savings and investment as a proportion of national income would rise from an estimated 5-6 percent in the early 1950s to 20 percent by 1968-69. It attempted a process of all-round development, which would ensure a rising national income and a steady improvement in the living standard of the people over a period of time.

The second five-year plan (1956-61) was more ambitious than the previous plan. It followed the two-sector model framed by P.C. Mahalanobis. One sector produced consumer goods and

the other investment goods, with sector-specific capital as the only factor of production. Based on the strategy of this model, the second plan aimed at heavy industrialisation with particular emphasis on the development of basic and heavy industries such as iron and steel, heavy chemicals, heavy engineering etc. Thereafter, the Government announced its Industrial Policy in 1956 accepting the establishment of a socialistic pattern of a society as the goal of economic policy.

The dominant growth orientation articulated in the Mahalanobis strategy of the Second Plan continued into the Third Plan. The Third Plan set its goal the establishment of a “*self-reliant and self-generating economy*.” It gave top priority to agriculture but it laid adequate emphasis on the development of basic industries. Later, the Third Plan shifted its priority to development to defense and development due to India’s conflict with China in 1962 and with Pakistan in 1965. However, a reasonable success was achieved during Second and Third Five Year Plan. Public sector investment in infrastructure and indirectly productive investments in universal intermediaries like steel, coal, power, and heavy electrical machinery increased considerably. Nevertheless, very little was achieved in case of small scale, cottage, and village industries as means of providing employment. In terms of aggregate performance, this phase witnessed a sustained growth in per capita incomes, distinct acceleration in public sector investment and in the growth of industrial output.

The first three five year plans were successful but due to two consecutive droughts and the foreign exchange crisis of the mid-1960s, the fourth plan could not be established as per the plan. The increased defence expenditure due to the conflict with China and Pakistan put the economy under severe strain. Therefore, three annual plans (1966-1969) called as Plan Holiday were implemented.

The Fourth Five Year Plan (1969-74) had two principal objectives- “*growth with stability and progressive achievement of self-reliance*.” It aimed at 5.5 percent average rates of growth in the national income and the provision of minimum for the weaker sections of the community. It also emphasised on the food security after facing two droughts.

The Fifth Plan (1974-79) recognised the inadequacy of growth and industrialisation to improve the living conditions of the people, particularly the poor. The concept of ‘*minimum needs*’ and slogans of *Garibi Hatoa* and ‘*growth with social justice*’ were the main concern of this plan.

There were two Sixth Plan (1978-83) due to the instability of the government; the first Sixth Plan framed by the Janata Dal was not successful. After the congress, defeated Janata dal, a new Sixth Plan was formulated (1980-85). While admiring Nehru Model the congress plan

shifted pattern of industrialisation with lower emphasis on heavy industries and more on infrastructure. The Sixth Plan witnessed a reasonable growth rate of 5.4 percent.

The Seventh Plan (1985-90) emphasis on the programmes and policies, which would increase the growth in food grain production, increase employment opportunity and raised productivity. It was also during this period that a reappraisal of the import-substitution strategy begins and a gradual liberalisation of the Indian economy is initiated.

The Eight Plan (1990-95) was overtaken by the crisis (balance of payment crisis, a raising debt burden, huge budget deficits, inflation, and recession in industry) of 1991 and the economic reforms. Due to this crisis, two-year plan holiday was introduced and it demanded a full appraisal of the planning methodology and the Eight Plan represents the first efforts at planning for a market-oriented economy.

After liberalisation, planning that was practised in the first four decades after independence was no longer tenable. The Ninth Plan was prepared under the United Front Government and was released in March 1998. Its focus was on “*Growth with Social Justice and Equality*.” It assigned priority to agriculture and rural development with a view of generating adequate productive employment and eradication of poverty.

Following liberalisation, the subsequent Five Year Plans were indicative in nature. Therefore, the role of the public sector in the Indian economy has considerably shrunk and is shrinking further. The Tenth Five Year Plan (2002-07) aimed of doubling the per capita income in the next ten year. It aimed to achieve the 8 percent GDP growth rate for 2002-07. It also aimed to improve the basic social services, especially suggested health, availability of drinking water and basic sanitation. Universal access to primary education was given importance. The Tenth Plan recorded a highest growth rate in all the five year plans.

The Eleventh Five Year Plan (2002-2012) envisages a high growth of GDP like Tenth Plan and set goal in the form of moving “*Towards Faster and More Inclusive Growth*.” The economy has performed well on the growth front, averaging 7.9 percent; the goal was paradoxically anti-labour and pro-corporate sector. This was in conflict with the goal of providing secure income and employment for common person. There was no policy for improvement of small and medium enterprises and small peasant agriculture. The removal of poverty required special attention but the planning commission were silent on some issues like food security, strengthening price support system, creation of price stabilisation fund for agricultural commodities, universalising crop insurance, protection to peasantry from subsidised imports of agricultural commodities and land reform.

### **10.3.3 NITI (National Institution for Transforming India) AAYOG:**

On 1<sup>st</sup> January 2015, the NITI Aayog came into existence as the government's premier thinktank. It replaced the erstwhile Planning Commission. The cabinet resolution lists 13 different tasks to NITI Aayog which may be grouped under four major heads, namely:

- i) Fostering cooperative federalism by providing structured support to states on a continuous basis;
- ii) Formulation of a strategic vision and long term policies and programme framework both for the macro economy and for different sectors;
- iii) Acting as a knowledge and innovations hub and providing research inputs by undertaking and accessing globally available research and
- iv) Providing a platform for interdepartmental coordination.
- v) NITI Aayog will have Prime Minister as its Chairman, vice-chairman cum Chief-Executive Officer (CEO), five fulltime members and two part time members, apart from four central government ministers.

### **10.3.4 Regional Disparities in Growth rates:**

India is a vast and diverse country. There is a regional variation in the growth and development of the states. Some states are exceedingly doing well than others in terms of growth of Gross State Domestic Product Growth. The inequalities exists not only between the states but also within the states. Even in some of the States with comparatively small geographical area, the levels of development are very uneven, especially in the Himalayan region of Nagaland, Mizoram, Arunachal Pradesh, Jammu & Kashmir (J&K), Himachal Pradesh and Uttarakhand. The unequal levels of development in the larger States, including several regions like Vidarbha region of Maharashtra; Koraput, Bolangir and Kalahandi (popularly known as KBK districts) of Orissa; Bundelkhand region, Eastern UP and parts of Central UP, northern Bihar, tribal areas of Jharkhand and Chhattisgarh, Andhra Pradesh, Maharashtra, UP and north Karnataka are a few examples. Such regional inequalities both between states and within states pose a serious development challenge to the Indian economy.

**Table 10.1**  
**State Wise Growth Rate in SDP for different plans period**

| State\UT                       | Eighth Plan | Ninth Plan | Tenth Plan (2002-2007) | Eleventh Plan (2007-2012) |
|--------------------------------|-------------|------------|------------------------|---------------------------|
| Andhra Pradesh                 | 5.4         | 5.5        | 8.2                    | 8.2                       |
| Bihar                          | 3.9         | 3.7        | 6.9                    | 9.9                       |
| Chhattisgarh                   |             |            | 8.8                    | 7.7                       |
| Goa                            | 9.0         | 5.7        | 8.5                    | 9.1                       |
| Gujarat                        | 12.9        | 2.8        | 11.0                   | 9.5                       |
| Haryana                        | 5.2         | 6.1        | 9.0                    | 9.0                       |
| Jharkhand                      |             |            | 5.0                    | 9.3                       |
| Karnataka                      | 6.2         | 5.8        | 7.7                    | 7.2                       |
| Kerala                         | 6.5         | 5.2        | 8.3                    | 8.2                       |
| Madhya Pradesh                 | 6.6         | 4.5        | 5.0                    | 9.2                       |
| Maharashtra                    | 8.9         | 4.1        | 10.1                   | 8.6                       |
| Odisha                         | 2.3         | 5.1        | 9.2                    | 7.1                       |
| Punjab                         | 4.8         | 4.0        | 6.0                    | 6.7                       |
| Rajasthan                      | 8.0         | 5.3        | 7.1                    | 8.5                       |
| Tamil Nadu                     | 7.0         | 4.7        | 9.7                    | 7.7                       |
| Uttar Pradesh                  | 5.0         | 2.5        | 5.8                    | 7.1                       |
| West Bengal                    | 6.3         | 6.5        | 6.2                    | 7.3                       |
| <b>Special Category States</b> |             |            |                        |                           |
| Arunachal                      | 5.0         | 6.6        | 6.2                    | 8.5                       |
| Assam                          | 2.8         | 1.8        | 5.0                    | 6.8                       |
| Manipur                        | 3.7         | 4.7        | 5.7                    | 6.2                       |
| Meghalaya                      | 4.0         | 7.2        | 6.7                    | 7.8                       |
| Mizoram                        | N.A         | 5.7        | 5.9                    | 10.8                      |
| Nagaland                       | 7.2         | 6.5        | 7.4                    | 6.2                       |
| . Sikkim                       | 4.6         | 6.6        | 7.7                    | 22.8                      |
| Tripura                        | 6.7         | 9.4        | 6.9                    | 8.9                       |
| <b>Average NE</b>              | 4.9         | 6.1        | 6.4                    | 9.8                       |
| <b>All India</b>               | 7.5         | 5.5        | 7.8                    | 8.0                       |

**Source: Planning Commission, twelve Five Year Plan (2012-2017).**

Different scholars attributes many reasons for the regional disparities in India. They are inequities in access to social and physical infrastructure, lack of private sector investment, access to credit, and quality of human capita. In addition, institutions matter, and regions with better law and order and governance benefit in the form of higher and sustained growth. Taking note of the regional disparities the eleventh Five Year Plan laid emphasise on the reduction of inter-state inequalities in Per Capita Income (PCI). The increase in PCIs in turn will depend on the growth rates. Therefore, the acceleration of growth rates and related indicators are important to achieve the objective.

The growth rates of SDP show several interesting convergence trends. The growth rate of Orissa (2.3) and Bihar (3.9) which was the lowest in Eight Plan has increased significantly to 7.7 and 9.9 per cent respectively. Similarly, MP, UP and Rajasthan have all recorded growth rates of 7 per cent or more in the Eleventh Plan. Other states like Gujarat, Goa, Jharkhand and



Haryana also recorded an increase in growth rate of more than 9 per cent in Eleventh Five Year Plan.

In case of the Special Category States, Sikkim recorded, the highest growth rate in Eleventh Plan (22.8) followed by Mizoram (10.8) and Tripura (8.9). The growth rate of State Domestic Product (SDP) of Arunachal Pradesh has increased from 5.0 per cent in Eight Plan to 8.5 per cent in Eleventh Plan. All states has recorded an increased in the growth rate except Nagaland whose growth rate fluctuates from 7.2 percent in eighth plan to 6.5 in Ninth Plan, 7.4 per cent in Tenth Plan, and 6.2 percent in Eleventh Plan.

#### **10.4 Five Year Plans and North Eastern States of India**

NER comprises of eight States of the North- East (NE), including Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and Sikkim. Special requirements of the NER and the need for significant levels of investment are now well recognised. Accordingly, efforts have been made since inception of the planning process to address the problems in the critical areas of development with special programmes and funding arrangements. There has also been continuous attempt to supplement development efforts of the Special Category States of NER by the Centre by providing Central Plan Assistance. Some of the programmes, like BADP, HADP, grants under Article 275(1) and BRGF are attempts to address some of the area specific problems in a limited way. Setting up of the North-Eastern Council (NEC) under NEC Act, 1971, as regional planning body has been another sincere step for balanced development of the region. In the latter part of the Ninth Plan, the announcement of 'New Initiatives for the North Eastern Region' in October 1996 gave further boost to the development process. Earmarking of at least 10 per cent of the Plan Budget of the Central Ministries/Departments for NER and creation of Non-lapsable Central Pool of Resources (NLCPR) were the outcome of this announcement. Both of these helped transfer of resources to the region.

Larger Plan investments and focus on infrastructure development has helped growth in this region. It is encouraging to note that there has been substantial improvement in the growth rate in the NE States, particularly in the Eleventh Plan. The growth rate of 6.1 per cent in the Ninth Plan improved to 6.4 per cent in the Tenth Plan, though less than the National Average of 7.8 per cent. The average GSDP growth of these States during Eleventh Plan improved to 9.8 per cent against 8 per cent at the national level. Average growth of NE States exceeded

the National average in the Eleventh Plan. If the exceptional growth of Sikkim is excluded, the average of seven States was 7.9 per cent. This improvement in the growth is due to concerted efforts of the Centre and the State.

The North-Eastern states has a large potential to develop and outgrow others states. It has vast untapped natural resources which if utilise properly can make the region vibrant. It has a large potential for producing hydro power of around 50000 MW but the pace of implementation has been poor. However, its evacuation of power poses a major challenge for several reasons. Firstly, lack of connectivity is one of the main problem. The entire capacity of power has to be evacuated through a narrow strip of about 25 km in West Bengal. Although no forest clearance is needed, land acquisition issues could pose problems, which need to be tackled. Second, the number of hydro power plants coming up in the region, especially in Arunachal Pradesh, is expected to be spread over the Twelfth and Thirteenth Plans but the transmission system has to be devised as a onetime operation and may therefore have redundancy initially. This will increase the costs of transmission. Thirdly, a number of States including Arunachal Pradesh, Tripura and Manipur do not have adequate 132/220/400 KV systems and this may cause problems in evacuation of power. Fourthly, the distribution system is inadequate and consequently leads to large power losses.

The development of roads in the North-East had been taken up by special programme under Special Accelerated Road Development Programme for North-East (SARDP-NE). It is proposed that the balance works under these programmes, which includes connectivity of all State capitals of North-East with two or four-lane NHs with paved shoulders and connecting all district headquarters with two-lane NHs will be taken up for completion. SARDP-NE Phase-B for which work has been taken up to prepare DPRs would be completed. It is planned to develop and complete the Trans- Arunachal Pradesh Highway during the Plan.

The Twelfth Five- Year Plan proposed to connect all the state capitals in the North East with the rest of the country by railways. New lines for connecting state capitals of Arunachal Pradesh, Manipur, Nagaland, Mizoram, and Meghalaya have been sanctioned and works are in progress. The work on these railway lines will be expedited so that all state capitals in the North East Region are on the rail map by 2020.

### **10.5 Problems and Prospects of North East Economy in the background of economic liberalisation of India- Opening of NE economy.**

Indian Economy was highly regulated during the first four decades of economic planning (1950-1990). On the one hand, the five-year plan focused on development of public sector for setting up of heavy and basic industries; on the other hand, it restricted the growth of private sector. India was facing huge balance of payment crisis, sick public sector enterprises, economic and financial crisis in early 1990s, which led to the introduction of New Economic Policy (NEP) in 1991. The three basic elements of economic reforms were liberalisation, privatisation, and globalisation of the Indian economy.

The government of India initiated the process of globalisation in 1991 and adopted different measures to integrate her economy with the world economy. One measure is liberalisation. Liberalisation is a process of opening up the national economy through the measures of de-control and de-regulation in order to facilitate the free flow of capital. Since, India has decided to integrate its economy with the rest of the world, the questions that arises is to what extent its different regions, and sub-regions has been integrated with the world. While there are many prospects for the development of North Eastern States in the backdrop of Economic Liberalisation, it is not free from problems.

#### **The problems are:**

1. Lack of Entrepreneurial Class: At the local or regional level, the presence of a competitive entrepreneurial class is a pre requisites criterion to reap the benefits of liberalisation. The greatest benefit of liberalisation is to be borne by the entrepreneurial class. However, North Eastern states lack entrepreneurial class. The entrepreneurial activities are absent among the tribal community and hardly any tribal engaged in trading or commercial activities. Therefore, the benefits would be reap by the rich mainland entrepreneurial class.
2. Lack of Physical Infrastructures: The North Eastern states can hardly attract private investment due to lack of physical infrastructures like road, railways and electricity.

3. **Socio-Political Conditions:** The socio-political conditions of North East acts as disincentive to the private investors. Outsiders are somehow considers as threat to the Tribals of north east for political or historical reasons. Inner Line Permits have been implemented in many states of North East, which regulates the free movement and the licensing principle is discriminatory in many states. Insurgency problem that exists in North Eastern states like in Nagaland, Assam and Some part of Arunachal Pradesh is a hindrance to attract the foreign and private investor. They collect taxes from the traders, entrepreneur, professionals, and even white-collar employee for their interest against the protection of the region.

### **Propects:**

While the states have manifold problems in respect to the liberalisation, there are huge prospects for the region to develop at par with the other states of India. The North Eastern States lags behind rest of the India in terms of economic indicators like industrial growth, power supply, urbanisation, credit facilities etc. Therefore, the people of this regions has the right to demand the development of own regions. If economic development has to be, meaningful it has to meet the specific needs of the regions.

After economic liberalisation, Indian economy has integrated with the world economy through FDIs capital flow and trade. This has opened up new avenues for exporters, entrepreneurs, and businesspersons across the country. North- Eastern regions has huge untapped natural resources, hotspots of unique tribal cultures and festivals, it has a huge potential to benefits from liberalisation. The region has vast mineral deposits, forest products, medicinal plants, horticultural products, traditional handlooms, and handicrafts items etc. These items can substantially improve its economic development process through effective participation in global trade and commerce. The region has 98% international borders with Bangladesh, Mynanmar, China, Bhutan and Nepal for which it can also develop boarder trade with the neighbouring countries

The government of India has initiated **Look East Policy** for which Northeast can benefit a lot. As part of Look East Policy, India is now one of four summit level partners – along with China, Japan, and Korea – of the Association of South East Asian Nations (ASEAN). Trade between India and ASEAN countries is expanding significantly. India has signed free trade area (FTA) agreements with Thailand and Singapore. There are a number of structures of

sub-regional cooperation in place including the Mekong-Ganga Cooperation (MGC) and BIMSTEC (Bangladesh, India, Myanmar, Sri Lanka, and Thailand – Economic Cooperation). Outside of ASEAN and bilateral trade between India and China has improved significantly.

The Look East Policy was renamed as Act East Policy and it was unveiled at the 12<sup>th</sup> ASEAN-India Summit in 2014. India was ASEAN sixth largest trading partner in 2017. Economic integration with South East Asia and its immediate neighbours offers enormous growth potential for Northeast. It could end the long decades of isolation for the remote region and turn it into a strategic bridge giving India access to the East. While markets in the North-East are much smaller than other regions in India,

The regions has a huge hydropower potential and if it is tapped and utilised properly it can be exported to its neighbouring international trade partners. The small-scale industries like pickle making, handlooms and handicrafts will also grow if proper roads and connectivity is built up. North East India is a hub of tourist attraction. Therefore, the development of roads and communication will boost its tourism sector.

However, there exists certain bottlenecks which ultimately curtail the promising future of northeast .Ethnic conflicts and insurgencies, presence of paramilitary forces, tight security apparatus, under developed physical infrastructure, lack of entrepreneurial spirit, lack proper marketing channels etc, pose serious challenges to the development of northeast. A broad based inclusive strategy can address these challenges and lead the regional economy towards sustained economic growth and social development.

## **10.6Key Words**

- (1) Economic Planning
- (2) Indicative Planning
- (3) Imperative Planning
- (4) NITI Aayog
- (5) Look East Policy

### 10.7 Check Your Progress

**Explain in 50-100 words**

- (a) Explain the importance of Economic Planning**
- (b) What are various types of Planning?**
- (c) Explain various objectives of Planning.**
- (d) What are the objectives of Planning in India?**
- (e) What is NITI Aayog? How is it different from Planning Commission?**
- (f) What is Look East policy?**

### 10.8 Long Type Questions

- (1) Explain the Planning process and outcome in the context of North East India
- (2) Critically examine the objectives of Planning of different five years plan in India with reference to North Eastern States.
- (3) Give an outline of emerging regional disparities in growth rate during 8<sup>th</sup> to 11<sup>th</sup> five year plan in India.
- (4) Explain the problems and prospects of Look East Policy in the context of North Eastern States.

### 10.9 suggested Reading

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