

CHAPTER – 6

SELECT ASPECTS OF INDIAN ECONOMY

Unit 1

Population



Learning Objectives

At the end of this unit, you will be able to :

- ◆ know the meaning of population.
- ◆ get familiar with demographic trends in India.
- ◆ understand how big population in India is acting as a drag on its economic growth.
- ◆ understand the causes of rapid population growth in India.
- ◆ know the steps taken by the government to meet the challenge of high population growth.

1.0 MEANING OF POPULATION

In common parlance, population refers to the total number of people residing in a place. Thus, population of India means the total number of people living in India. There was a time when growth in population was considered desirable. There are still certain countries (example, Australia), which give incentives to people to have large families and hence have big population of the country. For them, more number of persons is desirable as

- It provides work force to produce.
- It provides market for the products produced.
- It may promote innovative ideas.
- It may promote division of labour and specialisation.

However, there are countries (example, India) for whom more number of persons is not desirable as

- There may not be adequate jobs to absorb all additional people.
- They put pressure on means of subsistence.
- They put pressure on social overheads (hospitals, schools, roads etc.)
- They may result in increased consumption and reduced savings and hence slow down capital formation.
- They may increase dependency.

Actually, whether a big and growing population is an asset or a liability for the economy depends upon economy to economy.

1.1 DEMOGRAPHIC TRENDS IN INDIA

Size of Population : The size of population is determined in terms of number of persons. Considering the present boundary of India (i.e., except Pakistan and Bangladesh), the population in 1901 was 23.84 crores and after one hundred years, in 2001 it was 102.27 crores. Thus, over a period of 100 years, our population has more than quadrupled. In 2011 the population was more than 121 crores. The population during various census years is given in Table 1.

Table 1 : India's Population (1901 - 2001) (in crores)

Census Year	Population
1901	23.84
1911	25.21
1921	25.13
1931	27.90
1941	31.87
1951	36.11
1961	43.92
1971	54.81
1981	68.33
1991	84.33
2001	102.70
2011 (P)	121.02

P = Provisional

The Table shows how population has grown in size over the 20th century. As far as the size of India's population is concerned India ranks second in the world after China. India has only about 2.4 per cent of the world's area and less than 1.2 per cent of the world's income but accommodates about 17.5 per cent of the world's population. At present, a little more than one out of every six persons in the world is from India

Amongst the states and union territories, Uttar Pradesh continues to be the most populous state, followed by Maharashtra. The combined population of Uttar Pradesh and Maharashtra is far greater than the population of United States of America, the third most populous country of the world.

Rate of Growth : Table 2 shows the rate of growth of population in India. It shows growth rate of population per decade and per annum.

Table 2 : Growth of population

Decade	Growth Rate per decade	(Per cent) per annum
1901-1911	05.74	00.56
1911-1921	(-)00.31	-00.03
1921-1931	11.00	01.04
1931-1941	14.22	01.33
1941-1951	13.31	01.25
1951-1961	21.64	01.96
1961-1971	24.80	02.20
1971-1981	24.66	02.22
1981-1991	23.87	02.16
1991-2001	21.54	01.97
2001-2011	17.64	01.64



During 1901-11, the population grew by 5.74 per cent over the decade or 0.56 per cent per annum. The next decade saw a fall in the growth rate. In fact, there was a decrease in the population and growth rate became negative. Since 1921, population has again started increasing. In fact, year 1921 is known as 'Year of Great Divide' for India's population. The slow or negative growth during 1901-21 was due to rapid and frequent occurrence of epidemics like cholera, plague, influenza and famines. Since Independence, the rate has not only been positive but crossed the 2 per cent mark. Between 1961-1991, the growth rate has remained above 2 per cent per annum. Only in 1991-2001 decade, the growth rate has come down to 1.97 per cent per annum. According to the provisional figures of Census 2011, the growth rate of population during 2001-2011 decade was 1.64 per cent per annum.

Amongst the states, Bihar has the highest decadal (2001-11) growth rate of population, while Kerala has the lowest rate.

Birth rate and Death rate : Table 3 shows birth and death rates in India since Independence. Birth rate refers to number of birth per thousand of population. Similarly, death rate refers to number of deaths per thousand of population. We see from the table the death rate has declined significantly from 27.4 in 1951 to 8.4 in 2001 and 7.0 in 2012 and birth rate, although has declined but the decline is not so remarkable. Birth rate was 39.9 in 1951, it fell to 25.4 in 2001 and to 21.6 in 2012.

Table 3 : Crude Birth and Death Rate

Year	Birth Rate	Death Rate
1951	39.9	27.4
1961	41.7	22.8
1971	36.9	14.9
1981	33.9	12.5
1991	29.5	9.8
2001	25.4	8.4
2012	21.6	7.0

Among all the states, Kerala has the lowest birth rate of 14.9 (2012) and Bihar has the highest birth rate of 27.7 (2012). Considering death rate, West Bengal and Maharashtra have the lowest death rate of 6.3 each and Orissa has the highest death rate of 8.5 in 2012.

Density of population : Density of population refers to the number of persons per square kilometer. The changes in the density of population have been indicated in Table 4 :

Table 4 : Density of Population

Year	Density of population
1951	117
1961	142
1971	177
1981	216
1991	267
2001	325
2011	382

Density of the population before Independence was less than 100. But after Independence, it has increased rapidly from 117 in 1951 to 267 in 1991 to 325 in 2001 and further to 382 in 2011. Thus the pressure of population on land has been rising. The density of population is not the same for all the States; while Kerala, West Bengal, Bihar and U.P. have density higher than the average density, Andhra Pradesh, Himachal Pradesh, Gujrat, Madhya Pradesh, Maharashtra, Karnataka, Orissa, Rajasthan, Sikkim etc. have density lower than the nation's average. This difference could be due to the differences in natural resources endowment, level of development etc. *Bihar is the most densely populated state in the country with 1102 persons living per sq. km. followed by West Bengal with 880.*

If we consider all states and union territories of India, Delhi has the highest density of population – with 11297 persons, followed by Chandigarh with 9252 persons living per square kilometre. Inter-State variations in India in the density of population are also very informative about the demographic situation in the country. For example, we have Delhi on one side with density of more than 11000 and on the other side Arunachal Pradesh with density as low as 17 persons per sq. km. Even we can make a guess about the level of development seeing the density of the area. Generally, it has been noticed that areas which are industrially well developed experience higher density vis-a-vis areas which are not. But if in an economy, agricultural sector is dominant, better climate, rainfall and irrigation facilities exercise considerable influence on the density of population.

Sex ratio : Sex ratio refers to the number of females per 1000 males. The following table gives sex-ratio since Independence.

Table 5 : Sex Ratio (females per 1000 males)

Census Year	Sex ratio
1951	946
1961	941
1971	930
1981	934
1991	927
2001	933
2011	943

The above Table shows that sex ratio, is highly favourable to males than females. This speaks of a very important characteristic of our society i.e., our society is male dominated. This is in contrast to what is found in other countries of the world specially the more advanced one. Till late, there was great tendency among people in India to get the sex of the unborn child medically tested and get the pregnancy terminated if it was female. But now these tests have been banned. The recent census (2011) shows that there has been a marginal increase in sex ratio. Sex ratio was 927 in 1991, 933 in 2001 and now it is 943 (2011). That means the number of males per thousand females is on decrease. For rural and urban India this ratio was 946 and 900 respectively in 2001.

If we analyse State-wise figures, we find the sex ratio is favourable to males in all the States except Kerala. In Kerala, ratio of females to males in 2011 was 1084. Kerala is the State which provides better status to women as compared to other States. A number of reasons are ascribed for a high ratio of males to females. These are:



- (i) Neglect of female child and greater care for the male child in general results in higher mortality in the former case than the latter.
- (ii) High death rate among females specially during the time of child birth and due to low resistance power resulting from a number of deliveries without having proper diet and rest makes the sex ratio unfavourable to females.
- (iii) Under-reporting of female births.

Haryana has the lowest female sex ratio of 879 (2011) among states.

Life-expectancy at birth : Life expectancy refers to the mean expectation of life at birth. If death rate is high and/or death occurs at an early age, life expectancy will be low and, it will be high if death rate is low and/or death occurs at an advanced age. The following Table shows life expectancy at birth both for males and females.

Table 6 : Life expectancy at Birth (in years)

Period	Male	Female	Overall average
1951	32.5	31.7	32.1
1961	41.9	40.6	41.3
1971	46.4	44.7	45.6
1981	55.4	55.7	55.4
1991	59.0	59.7	59.4
2001	62.3	64.6	63.4
2011	64.6	67.7	66.1

Life expectancy has improved over the years. During 1901-11, life expectancy was just 23 years. It remained below 30 years till the decade 1921-30 and remained below 40 years till the period 1941-50. However, it improved to 55 in 1981 and to 59 in 1991 and further to 63.4 in 2001 and 66.1 years in 2011. Considerable fall in the death rate is responsible for improvement in the life expectancy at birth. This could be one of the reasons for favourable sex ratio for males.

Amongst the states, Kerala had the highest life expectancy at birth at 71.4 and Madhya Pradesh had the lowest life expectancy at birth at 58 in 2006.

Life expectancy at birth in India compares badly when compared with the life expectancy at birth in developed economies and some of the developing economies such as Sri Lanka and Thailand. India can still improve its life expectancy by increasing moderately the expenditure on public health and medicine.

Literacy ratio : Literacy ratio refers to number of literates as a percentage of total population. Literacy ratio in general and among males and females is shown below :

Table 7 : Literacy Ratio

Census Year	Literate persons	Males	Females
1951	18.3	27.2	8.9
1961	28.3	40.4	15.4
1971	34.4	46.0	22.0
1981	43.6	56.4	29.8
1991	52.21	64.1	39.3
2001	64.8	75.3	53.7
2011	74.0	82.1	65.5

In 1951, only 27% of males and 9% of females were literate. Thus on an average only 18% of the people of the country were literate. During 1951-2011, there has been considerable improvement in literacy. This is clear from the figures of 2011. In 2011, 82 per cent of males and 65 of females were literate giving an overall literacy rate of 74. Compared with other developed countries, this rate is very low. Illiteracy among 26 per cent of the population is bound to affect the progress of family planning programme. It has been found that literate persons are more responsive to family planning programme than illiterate ones.

Literacy is higher among urban population compared with rural population. This could be because of better facilities of education in urban areas compared to the facilities available in rural areas.

Literacy rates are different among the States also. Kerala has the highest literacy ratio of 92 per cent and Bihar has the lowest literacy ratio of 53 per cent. As against about 92 per cent literacy in Kerala, about 82 per cent in Goa, 75 per cent in Maharashtra and 76 percent in Himachal Pradesh, and 74 per cent in Tamil Nadu, literacy is around 53 per cent in Rajasthan and 59 per cent in Uttar Pradesh. The differences are even greater when we compare literacy among females in the different states.

The Eighth Plan aimed at complete eradication of illiteracy among people in the age group of 15 to 35 years by the end of the plan. Seeing the overall progress on literacy front till now, this seems to be a difficult target. According to one estimate, it would take more than 30 years for the Indian population to be fully literate.

1.2 CAUSES OF THE RAPID GROWTH OF POPULATION

Population generally increases because of

- (i) high birth rate.
- (ii) relatively lower death rate.
- (iii) immigration.

India's population has mainly increased because of high birth rate and relatively low death rate.

Causes of high birth rate

- (1) India is predominantly agrarian economy. In an agrarian economy, children are considered assets and not burdens as they help in agricultural fields.



- (2) The process of urbanisation is slow in India and it has failed to generate social forces which force people to have small families.
- (3) There is high incidence of poverty in India. Poor people tend to have large families.
- (4) Marriage is both a religious and social necessity in India. Presently in India by the age of 50 only 5 out of 1,000 Indian women remained unmarried.
- (5) Not only marriages are almost compulsory, they take place at quite young age in India.
- (6) Most Indians on account of their religious and social superstitions desire to have more children having no regard to their economic conditions.
- (7) Joint family system in India also encourages people to have large families.
- (8) Lack of education among people especially among women causes people to have irrational attitudes and hence big families.

Causes of fall in the death rate

- (1) Famines which were wide spread before Independence, have not occurred on a large scale since Independence. Whenever droughts occurred, they have been dealt with adequately.
- (2) Cholera and small pox often resulted in epidemics before Independence. Now small pox is completely eradicated and cholera is very much under control. Similarly there has been decline in the incidence of malaria and tuberculosis. These have resulted in reducing the death rate.
- (3) Other factors which have reduced the death rate are: spread of education, expanded medical facilities, improved supply of potable water, improvement in the nutritional level and so on.

1.3 GROWTH OF POPULATION IN INDIA AND ITS EFFECTS ON ECONOMIC DEVELOPMENT

India is passing through the phase of population explosion. Population explosion is a transitory phase according to the theory of Demographic Transition. This theory says that every country passes through 3 stages - In the first stage both birth rate and death rate are very high. Hence, population remains stable. In this stage, birth rate is high because people are illiterate, poverty is wide-spread, marriages are conducted at early age and superstitions cause people to have big families. Death rate is high on account of malnutrition, lack of medical facilities, absence of hygienic conditions etc.

In the second stage, birth rate comes down slightly but death rate comes down very heavily. Death rate comes down due to improvement in medical facilities and improved standard of living. Birth rate remains high because of social beliefs and customs do not change overnight. This stage is also called the stage of population explosion as population increases at a very high rate during this stage.

In the third stage, greater education causes people realise the importance of smaller families and better standard of life. Old social customs give place to new ideas. As a result, birth rate is low. Death rate is low because of better hygienic conditions and better medical facilities. The net result is population grows at a very modest rate.

Now we will analyse how growth of population has affected economic growth in India.

- (i) **Growth of national income** : National income rose by nearly 18 times during 1950-51 to 2011-12, but on account of increase in population by *more than 2* times, the per capita income rose by less than five times only. The average annual growth during this period was about 4.9 per cent but could effect an increase of only 3 per cent in per capita income.
- (ii) **Food supply** : The total production of foodgrains increased from 51 million tonnes in 1951 to about 260 million tonnes in 2011-12. During the same period population increased from 361 million to more than 1210 million. Consequently, the per capita domestic availability of foodgrains increased from 395 grams to 463 grams signifying a very small increase in per capita availability. As compared to increasing demand for food, per capita availability of food grains is insufficient. If the present trend of increase in population continues demand for foodgrains might outgrow population unless the increase in population is contained by vigorous family planning programmes.

Also, increase in production of foodgrains has to be brought about more and more through increasing productivity because per capita availability of cultivable area is coming down gradually. In 1951 it stood at 0.33 hectare per capita which came down to less than 0.17 hectare per capita in recent years. A falling land-man ratio has to be compensated by increase in productivity per acre.

- (iii) **Unproductive consumers** : With a rapid increase in population, the ratio of children and old persons in total population has a tendency to increase which leads to higher burden of unproductive consumers on the total population. In India, around 63 per cent of the population is in the age group 15-64 and 37 per cent of the population is under 15 or above 64. That means about 37 percent of the population is dependent on 63 per cent of the population or we say that the dependency rate is more than 57 per cent. An increase in the ratio of unproductive consumers places additional burden on the resources of the family as well as the public utility services like education, health etc. Economists have calculated the burden of dependency in terms of food, education and health. Such dependency load is an important contributing factor to the vicious circle of poverty and under-development in developing countries.
- (iv) **Problem of unemployment** : With fast growing population, the labour force increases rapidly and there is a pressure for creating jobs for the growing labour force. In absence of insufficient number of jobs, the number of unemployed people increases.

In India, in successive plans job opportunities have been created but they have fallen short of the required numbers and as a result the backlog of unemployed people has become very large. It is estimated that unemployed and underemployed persons constitute nearly 10 per cent of the labour force in India. Moreover, it is projected that total labour force would increase by 24.5 million in the Twelfth Plan. Jobs would have to be created for these people plus the people in the backlog.

- (v) **Capital formation** : It is said that a part of capital formation investment normally goes in maintaining the existing standard of living for the additional population. For example, with a population growth of 2 per cent an investment of around 8 per cent (with a capital output ratio of 4 : 1) of national income would just be able to maintain the existing standard for the additional population. Therefore, for any improvement in the standard of living, the capital investment has to be very large. Thus, for 5 per cent rise in per capita income the resources needed for the economic development will be 20 per cent. Thus to bring about an increase of 5 per cent in per capita income, an investment of 28 per cent (8 per cent for demographic investment and 20 per cent for economic investment) will be needed.



- (vi) **Ecological degradation:** A rapid growth population in India, as in many other countries, has somewhat upset the ecological balance. There is a gradual shrinkage of area covered by forests as also open land. Denudation of forest means serious soil erosion and floods with their adverse consequences on food production. Also, removal of forests has led to unfavourable climatic changes evidenced by prolonged droughts over extensive areas. There is also a great pressure on agricultural land leading to depletion of natural soil fertility, increase in alkalinity and salinity of soils. A high concentration of population in urban areas, unsupported by adequate infrastructural facilities (drinking water, sanitation, transportation, housing etc.) is a cause of serious pollution.

Demographic Dividend

In India, 63 per cent population is in the working age group (15-64 years) and it is projected that in 2026 this will increase to 68.4 per cent. Such a big labour force, if properly utilised can yield high production and growth for the economy. This has come to be known as “demographic dividend”. For actually tapping this dividend, the Eleventh and Twelfth plans rely upon not only ensuring proper health care but also on putting a major emphasis on skill development and encouragement of labour intensive industries. The projected decline in the dependency ratio (ratio of dependents to working age population) from 0.8 in 1991 to 0.73 in 2001 is expected to further decline sharply to 0.59 in 2011. This is in contrast with the demographic trend in the industrialised countries and also in China, where dependency ratio is rising. Low dependency ratio gives India a comparative cost advantage and a progressively lower dependency ratio will result in improving our cost competitiveness.

1.4 GOVERNMENT MEASURES FOR SOLVING THE POPULATION PROBLEM

Population growth is not to be left to natural, biological and other forces. Policy intervention is needed to plan and regulate it in tune with the needs of the economy and society. Even if economic growth rate is more than population growth rate, a developing country cannot afford to derive satisfaction from this fact but should deliberately adopt some policy measures to slow down the rate of population growth. In a developing country like India, the fruits of rapid economic growth will have little impact on society if population growth is not controlled. Much of the gains of economic growth is neutralised by rapid increase in numbers. Even inflation which is another neutraliser of economic growth is partly a function of population growth.

Family planning which was and is a principal component of the population policy was taken up on a modest scale with emphasis on clinical approach during the first decade of planning. The emphasis was mainly on research in the field of demography, physiology of reproduction, motivation and communication. Since these measures did not yield the expected results, a full fledged department of family planning was created in 1966. Various contraceptive methods were offered and the acceptors had the freedom to choose any of the methods offered. This has been known as ‘cafeteria approach’. The allocation towards family planning programmes kept on increasing from plan to plan. There was a significant shift in the strategy of the government towards population under the Fifth Plan. A new National Population Policy replaced earlier Population Policy of the government. It was felt that to wait for education and economic development to bring about a drop in fertility was not a practical solution. The very increase in

population made economic development slow. Therefore, a direct assault on the problem was made. Under the policy the marriageable age was raised to 18 years and 21 years for girls and boys respectively, monetary incentives were offered for voluntary sterilization and family planning was made a mass movement by involving various community groups like Zila Parishad, Panchayat Samitis, Co-operative Societies and trade unions at the grass roots levels.

The implementation of parts of this policy during Emergency (1975-77) had disastrous consequences since the implementers indulged in all types of high-handed practices. The result was that the family planning programme became an object of popular fear and hatred. Learning from the experience of Fifth Plan, in Sixth Plan and plans thereafter again the emphasis shifted to education and economic development as a means of solving population problem.

National Population Policy, 2000

With a view to encourage two-child norm and stabilizing population by 2046 A.D. the Government adopted the National Population Policy (NPP-2000). The following are the main features of the NPP :

- Address the unmet needs for basic reproductive and child health services, supplies and infrastructure.
- Make school education up to age 14 free and compulsory, and reduce dropouts at primary and secondary school levels to below 20 per cent for both boys and girls.
- Reduced infant mortality rate to below 30 per 1000 live births.
- Reduce maternal mortality ratio to below 100 per 100,000 live births.
- Achieve universal immunisation of children against all vaccine preventable diseases.
- Promote delayed marriage for girls, not earlier than age 18 and preferably after 20 years of age.
- Achieve 80 per cent institutional deliveries and 100 per cent deliveries by trained persons.
- Achieve universal access to information/counselling, and services for fertility regularisation and contraception with a wide basket of choices.
- Achieve 100 per cent registration of births, deaths, marriage and pregnancy.
- Prevent and control communicable diseases.
- Integrate Indian System of Medicine (ISM) in the provision of reproductive and child health services, and in reaching out to households.
- Promote vigorously the small family norms to achieve replacement levels of TFR (Total Fertility Rate).
- Bring about convergence in implementation of related social sector programs so that family welfare becomes a people centred program.

Maternal Mortality Ratio and Infant Mortality Rate : Maternal Mortality Ratio (MMR) refers to the number of maternal deaths in a given period per 1,00,000 live births. Infant Mortality Rate (IMR) refers to number of babies dying before the age of one, per 1000 live births. As per 2010 data, Infant mortality rate in India is highest for Madhya Pradesh (62) and lowest for Kerala (13).

The Tenth Plan targeted a reduction in Infant Mortality Rate (IMR) to 45 per 1000 by 2007 and 28 per 1000 by 2012, reduction in Maternal Mortality ratio (MMR) to 2 per 1000 live births by

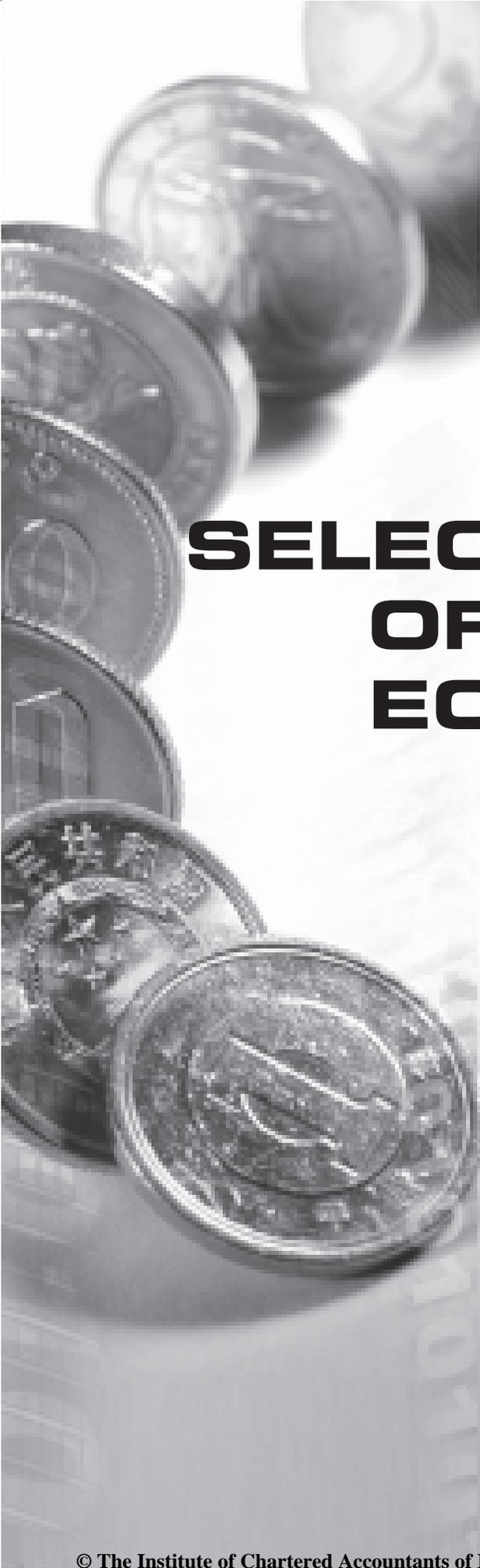


2007 and 1 per 1000 live births by 2012 and reduction in decadal growth rate of the population between 2001-2011 to 16.2 per cent. *Seeing the achievements so far it is unlikely that the targets set would be timely achieved. For example, IMR is still very high at 42 (2012). Similarly, MMR (per 1000 live births) is also quite high at 1.78 (2012).*

The Eleventh Plan continued with the targets of the Tenth Plan i.e. reducing IMR to 28 per 1000 and MMR to 1 (per 1,00,000 live births) by the end of the plan. The Twelfth plan aims at achieving IMR of 25 and MMR of 100 by the end of the plan.

SUMMARY

- Population refers to the total number of people residing in a place. The nature and quality of the population and the rate of its increase, enable the nation to plan for the provision of social welfare measures.
- The population of a country constitutes the human resources required for economic development.
- The population census provides comprehensive details of demographic trends in a country. They are size of population, birth and death ratio, density of population, sex ratio, and life expectancy at birth.
- Population generally increases because of high birth rate, relatively lower death rate and immigration.
- Population explosion is a transitory phase according to the theory of demographic transition. It occurs in the second stage.
 - I stage – High Birth rate and Death rate
 - II stage – High Birth and Low Death rate
 - III stage – Low Birth and Low Death rate
- India is passing through the II stage or phase of demographic transition.
- Overpopulation has affected the Indian economic growth in many ways like shortage of food grains, unproductive consumers, problem of unemployment, ecological degradation etc.
- While analyzing the population policy of India we find that economic and social measures have not been given proper weightage.
- The Family planning program is not well integrated and well planned.



CHAPTER – 6

SELECT ASPECTS OF INDIAN ECONOMY

Unit 2

Poverty



Learning Objectives

At the end of this unit, you will be able to :

- ◆ know the difference between absolute poverty and relative poverty.
- ◆ understand how poverty is measured in India.
- ◆ be familiar with the causes of poverty in India
- ◆ know the government's programmes for poverty alleviation.

Poverty is a widespread social evil in underdeveloped countries of the world, particularly in Asia and Africa. There is no standard definition of poverty for all the countries of the world. Some countries approach poverty in the absolute terms and some countries approach poverty in relative terms.

2.0 ABSOLUTE POVERTY AND RELATIVE POVERTY

When poverty is taken in absolute terms and is not related to the income or consumption expenditure distribution, it is absolute poverty.

On the other hand, when poverty is taken in relative terms and is related to the distribution of income or consumption expenditure, it is relative poverty.

The concept of absolute poverty is relevant for the less-developed countries. To measure absolute poverty, absolute norms for living are first laid down. These relate to some minimum standard of living. These may be expressed or measured in terms of income/consumption expenditure. Given this, one classifies all those as poor who fall below the standard. The number or percentage of such poor in the country's population gives the measure of poverty.

The concept of relative poverty is more relevant for the developed countries. According to the relative standard, income distribution of the population in different fractile groups is estimated and a comparison of the levels of living of the top 5 to 10 per cent with the bottom 5 to 10 per cent of the population reflects the relative standard of poverty. Gini co-efficient are often used for measuring poverty in relative sense.

In India we use the concept of absolute poverty for measuring poverty. For this a minimum level of consumption standard is laid down (known poverty line) and those who fail to reach this minimum consumption level are regarded as poor.

2.1 POVERTY IN INDIA

It is generally agreed that only those people who fail to reach a certain minimum level of consumption standard should be regarded as poor. Different economists have defined poverty line in different ways. The Planning Commission adopted the definition provided by the 'Task force on Projections of Minimum Needs and Effective Consumption Demand' according to which, a person is below the poverty line if his daily consumption of calories is less than 2400 in rural areas and 2100 in urban areas. On the basis of this, the monthly cut-off points turned out to be ₹ 76 for rural areas and Rs. 88 for urban areas at 1979-80 prices.

For some times, these cut offs were used by converting them into current rupees using the implicit price deflator of consumption in the National Accounts. This process had the disadvantage of ignoring interstate differences in price levels as well as variations from state to state in urban to rural price differentials.

Poverty Estimates : The National Sample Survey Office (NSSO) undertakes surveys from time to time in order to analyse the expenditure pattern of people in rural and urban areas.

It uses two types of recall periods – uniform recall period (URP) and mixed recall period (MRP). While the URP uses 30-day recall/ reference period for all items of consumption, MRP uses 365 day recall/reference period for five infrequently purchased non-food items namely, clothing, footwear, durable goods, education and institutional medical expenses.

Planning Commission Estimates of Poverty: The Planning Commission, the nodal agency for estimating the number and proportion of people living below the poverty line at national and state levels reviews the methodology for estimating poverty from time to time. It constituted an Expert Group under the Chairmanship of Professor Suresh D. Tendulkar which submitted its report in December 2009. The Committee recommended that poverty estimates should be based on MRP based NSSO data on private household consumer expenditure and calorie intake norms should be done away with.

As per the Tendulkar Committee Report, the national poverty line at 2004-5 prices was a monthly consumption expenditure of Rs . 446.68 in rural and Rs. 578.80 in urban areas in 2004-05. In order to have comparative data, the Expert Group re-estimated poverty for 1993-94. After 2004-05, this survey has been conducted in 2011-12. The Planning commission has updated the Poverty lines and poverty ratios as per the recommendations of the Tedulkar Committee using NSS 68th round (2011-12) data from the Household Consumer Expenditure Survey. It has estimated the poverty lines at all India level as an monthly per capita expenditure (MPCE) of RS 816 for rural area and Rs 1000 for urban areas in 2011-12. Based on these cut offs, the percentage of people below the poverty line declined from 37.2 per cent in 2004-05 to 21.9 per cent in 2011-12.

Table 8 shows the poverty data for 1993-94, 2004-05 and 2011-12 as given by the Tendulkar Committee and accepted by the Planning Commission.

**Table 8 : Poverty Ratio
(by MRP Method)**

	1993-94	2004-05	2011-12
Rural	50.1	41.8	25.7
Urban	31.8	25.7	13.7
Total	45.3	37.2	21.9

Source: Economic Survey 2010-11, Twelfth Five year plan

According to this estimate, in 1993-94, 45.3 per cent of the total population was below poverty line. In 2011-12, this ratio came down to 21.9 per cent showing a fall of 23.4 percentage point in the poverty data.



While poverty rates have declined, the malnutrition has remained stubbornly high. Around 40 per cent children below 3 years of age were underweight and malnourished in 2005-06 compared to 43 per cent in 1998-99.

The Human Development Report (HDR) 2010 measured poverty in terms of a new parameter namely Multidimensional Poverty Index (MPI). The MPI shows the share of population which is multidimensionally poor in terms of living standards, health and education. According to this parameter, India has a poverty index of 0.283.

2.2 CAUSES OF POVERTY

Economic Causes : Various causes of poverty can be classified under economic, political and social heads. Economic backwardness or stagnation is often the characteristic of the countryside of a developing country like India where majority of the population lives. Agriculture is the main occupation of the rural poor and contributes 14 per cent of the GDP. Yet the income it provides to agricultural workers is substantially below average and almost at the subsistence level. There are a number of factors which are responsible for low income in the agricultural sector such as small size of land holdings, inadequate irrigation facilities, lack of enough financial resources needed for investment for ensuring development and raising productivity. Thus, productivity in small farms is generally low resulting in very low levels of returns. The condition of landless agricultural labourer is worse. The economic conditions of persons engaged in non-agricultural activities in the rural sector are equally dismal.

Political and Social Causes : Political vested interests are also equally responsible for widespread poverty in the economy. But whereas these interests can be countered by following the right type of policies, social factors responsible for promoting poverty are more severe and are interwoven in the web of society itself. Inhibitions and handicaps arising from caste and religion are hard to overcome and require considerable effort by way of propaganda and education through mass media, reorientation of education system and so on.

Other Causes : Apart from these, other factors such as family size and family composition, poor levels of education and skills, lack of motivation and will to get out of the rut of poverty and misery, the feudalistic system of bonded labour in some parts of the country and so on, are also responsible for depressed standards of living among people.

2.3 GOVERNMENT PROGRAMMES FOR POVERTY ALLEVIATION

Poverty alleviation and raising the average standard of living have always been stated as the central aims of economic planning in India. The plan strategies to achieve these aims can be broadly divided into three phases. In the first phase, the prime emphasis was on growth. It was expected that growth through improvement in infrastructure and heavy industries will take care of the problem of unemployment and poverty. In the second phase, beginning with Fifth Plan, poverty alleviation came to be adopted as an 'explicit objective' of economic planning. Several specific programmes for poverty alleviation and employment generation directed towards selected target groups were launched. In the third and final (present) phase, emphasis shifted to 'growth' and 'poverty alleviation' as two complementary actions. The various recent programmes for poverty alleviation are as follows. The earlier such programmes have been streamlined and merged into these programmes.

SELECT ASPECTS OF INDIAN ECONOMY

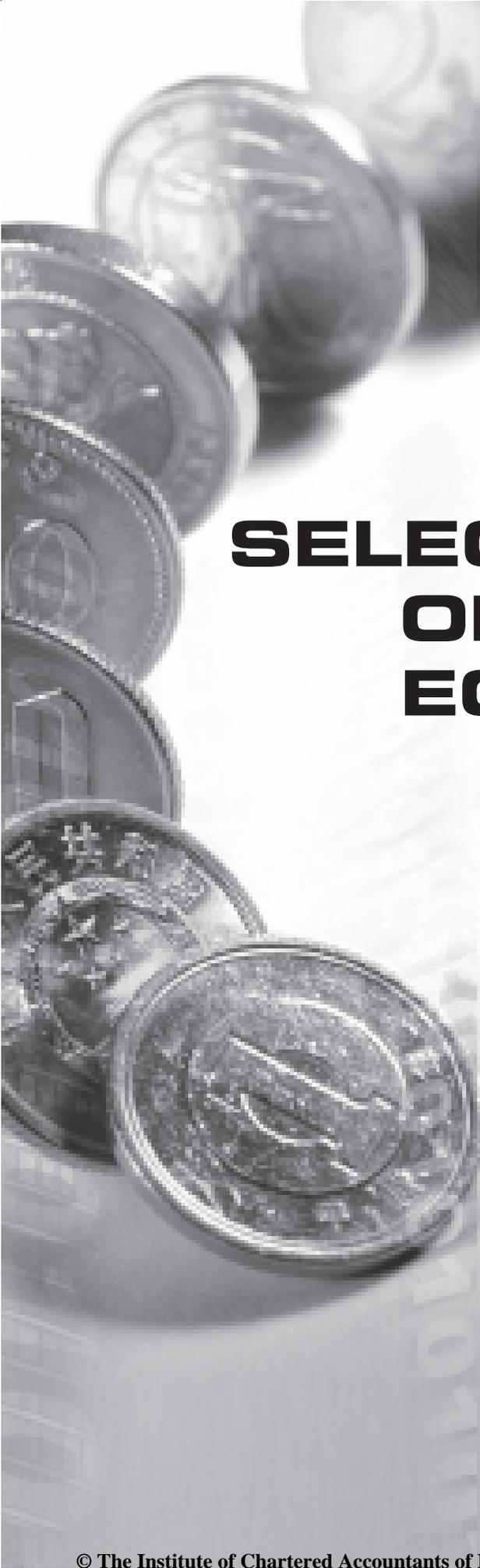
- (1) **The Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS):** The MGNREG Act was notified in 2006 in selected districts and was later extended throughout the country in 2008. It aims at enhancing livelihood security of households in rural areas of the country by providing at least 100 days of guaranteed wage employment in a financial year to every household whose adult members volunteer to do unskilled manual work. During 2013-14, more than 4.78 crore households were provided employment under the scheme.
- (2) **Swaran Jayanti Gram Swarozgar Yojana (SGSY) :** This was introduced in April, 1999 as a result of restructuring and combining the Integrated Rural Development Programme (IRDP) and allied programmes and Million Wells Scheme (MWS). It is the only self-employment programme for the rural poor. It aims at bringing the self employed above the poverty line by providing them income generating assets. During 2013-14, more than 4.78 lakh households have been assisted. The SGSY was restructured as the National Rural Livelihoods Mission (NRLM) and now has been renamed as Aajeevika. The NRLM aims at reducing poverty by enabling poor households to access gainful self-employment and skilled wage employment opportunities.
- (3) **The Swarna Jayanti Shahari Rozgar Yojana (SJSRY) :** The SJSRY which came into operation from December'97, sub-summing the earlier urban poverty alleviation programmes viz., Nehru Rozgar Yojana (NRY), Urban Basic Services Programmes (UBSP) and Prime Minister's Integrated Urban Poverty Eradication Programme (PMIUPEP). The scheme which was revamped in 2009, aims to provide gainful employment to the urban unemployed or underemployed poor by encouraging the setting up of self-employment ventures or provision of wage employment. The SJSRY was replaced by National Urban Livelihood Mission (NULM) in 2013. The NULM will focus on organizing urban poor in self Help Groups (SHGs), creating opportunities for skill development leading to market based employment ventures by ensuring easy access to credit. A total of about 8,00,000 beneficiaries have been assisted in 2013-14.

SUMMARY

- Poverty is defined as a situation where an individual in a country is unable to earn sufficient income to purchase the bare minimum means of subsistence.
- In India, poverty is wide spread. 22 per cent of the population is below the poverty-line.
- There are two concepts of poverty, one is poverty in absolute term which is relevant for under-developed countries and the second one is relative poverty which is relevant for developed countries
- In order to measure the number of poor and the extent of poverty in a country economists have used the concepts of poverty line
- The sixth five year plan defined poverty line in term of nutritional requirements: The 2400 calories per person per day in rural areas and 2100 calories in urban areas. Now this practice has been given up.



- The Planning Commission, the nodal agency for estimating the proportion of people living below the poverty line, has, based on Tendulkar committee recommendations, set poverty line at ₹ 816 in rural areas and 1000 in urban areas at 2004-05 prices. Accordingly, 22% of people are below poverty line (2011-12).
- The principle causes for the poverty in India are high growth rate of population, inequalities of income and low per capita income, low consumption expenditure, social and political cause etc.
- The following schemes are operational in India to reduce poverty
 - Mahatma Gandhi National Rural Employment Guarantee Scheme
 - Swaran Jayanti Gram Swarozgar Yojana now called Aajeevika
 - The Swarna Jayanti Shahari Rozgar Yojana, now replaced by National Urban Livelihood Mission (NULM)



CHAPTER – 6

SELECT ASPECTS OF INDIAN ECONOMY

Unit 3

Unemployment



Learning Objectives

At the end of this unit, you will be able to :

- ◆ get familiar with the meaning of unemployment.
- ◆ understand various types of unemployment.
- ◆ understand the nature of unemployment problem in India.
- ◆ know the incidence of unemployment in India.

Roughly every sixth person in the world is an Indian and every third poor person in the world is also an Indian. The statistics speak about the gravity of the problems of unemployment and poverty which demand an immediate solution. It has been observed that with the increase in the number of unemployed persons poverty expands. Keeping in view this fact, removal of unemployment has been mentioned as one of the objectives of economic planning in all five year plans, but it has been given serious consideration only after Fifth Plan. Till Fifth Plan, there was no serious concern for solving the unemployment problem.

It was assumed that the gains of economic growth would percolate downwards and thus inequalities would decline and problems of poverty and unemployment and would be automatically solved. The growth of employment and removal of poverty were taken for granted. The connection between economic growth and other objectives as stated above is not as simple as it is often believed in this country. It has been observed in a number of less developed countries that economic growth generally benefits the elite groups and, as a result, economic inequalities grow. India's experience is precisely the same over the period. The growing unemployment over the years is generally attributed to this basic weakness in the approach of the Government.

3.0 MEANING AND TYPES OF UNEMPLOYMENT

Generally a person who is not gainfully employed in any productive activity is called unemployed. Unemployment is a complex phenomenon and takes many forms. The important forms are:

- i) **Voluntary unemployment** : In every society, there are some people who are unwilling to work at the prevailing wage rate and there are some people who get a continuous flow of income from their property or other sources and need not work. All such people are voluntarily unemployed. Voluntary employment may be a national waste of human energy, but it is not a serious economic problem.
- ii) **Frictional Unemployment** : Frictional unemployment is a temporary phenomenon. It may result when some workers are temporarily out of work while changing jobs. It may also result when the work is suspended due to strikes or lockouts. To some extent, frictional unemployment is also caused by imperfect mobility of labour. We may also say that frictional unemployment is due to difficulties in getting workers and vacancies together.
- iii) **Casual unemployment** : In industries, such as construction, catering or agriculture, where workers are employed on a day to day basis, there are chances of casual unemployment occurring due to short- term contracts, which are terminable any time.
- iv) **Seasonal unemployment** : There are some industries and occupations such as agriculture, the catering trade in holiday resorts, some agro-based activities like sugar mills and rice mills, in which production activities are seasonal in nature. So they offer employment for

only a certain period of time in a year. People engaged in such type of work or activities may remain unemployed during the off-season. We call it seasonal unemployment.

- v) **Structural Unemployment** : Due to structural changes in the economy, structural unemployment may result. It is caused by a decline in demand for production in a particular industry, and consequent disinvestment and reduction in its manpower requirement. In fact, structural unemployment is a natural concomitant of economic progress and innovation in a complex industrial economy of modern times.
- vi) **Technological unemployment** : Due to the introduction of new machinery, improvement in methods of production, labour-saving devices, etc., some workers tend to be replaced by machines. Their unemployment is termed as technological unemployment.
- vii) **Cyclical unemployment** : Capitalist biased, advanced countries are subject to trade cycles. Trade cycles - especially recessionary and depressionary phases cause cyclical unemployment in these countries. During the contraction phase of a trade cycle in an economy, aggregate demand falls and this leads to disinvestment, decline in production and unemployment. The solution for cyclical unemployment lies in measures for increasing total expenditure in the economy, thereby pushing up the level of effective demand. Easy money policy and fiscal measures such as deficit financing may help. Since cyclical phase is temporary, cyclical unemployment remains only a short- term phenomenon.
- viii) **Chronic unemployment** : When unemployment tends to be a long- term feature of a country it is called chronic unemployment. Underdeveloped countries suffer from chronic unemployment on account of the vicious circle of poverty, lack of developed resources and their under utilisation, high population growth, backward, even primitive state of technology, low capital formation, etc.
- ix) **Disguised unemployment** : So far, the types of unemployment which we have discussed above are all related to open unemployment. Apart from open unemployment we have disguised unemployment. Disguised unemployment commonly refers to a situation of employment with surplus manpower in which some workers have zero marginal productivity so that their removal will not affect the volume of total output. Disguised unemployment in the strict sense, implies underemployment of labour. To illustrate, suppose a family farm is properly organized and four persons are working on it. If, however, two more workers are employed on it and there is no change in output, we may say that these two workers are disguisedly unemployed. This kind of unemployment is a common feature of under developed economies especially of their rural sector. In short, overcrowding in an occupation leads to disguised unemployment. It is a common phenomenon in an over populated country.

3.1 NATURE OF THE UNEMPLOYMENT IN INDIA

Most of the unemployment in India is definitely structural, that is, the structure of the economy is such that it does not absorb an increasing number of people coming to labour market in search of jobs. Apart from structural unemployment there is some cyclical unemployment which has resulted from industrial recession in urban areas. If we classify unemployment as rural and urban unemployment we find total urban unemployment is mainly of industrial unemployment and educated unemployment type and rural unemployment is seasonal and disguised in nature. Industrial unemployment is the one which has resulted from failure of the industrial sector to absorb the increasing labour force and educated unemployment results



when a large number of educated people remain unabsorbed. Seasonal unemployment, generally, results in agricultural sector when a large number of small and marginal farmers and labourers do not get occupied during the off-season and disguised unemployment results when people appear to be occupied but actually they are not adding to production. This happens because of over-population which forces people to work on a small piece of land although their services on the land may not be required. It is estimated that over one-third of India's work force is disguisedly unemployed.

3.2 CAUSES OF UNEMPLOYMENT IN INDIA

The various causes responsible for widespread unemployment in India are as follows :

1. **Growth without adequate employment opportunities** : As economy grows usually employment also grows. But in India, most of the time, the economic growth has been inadequate and adequate number of jobs could not be created. In fact, for almost three decade 1950-80, GDP growth rate was as low as 3.5 per cent per annum. Such a low rate of growth did not push many jobs in the market. Since 1980s however, growth has accelerated to around 5-6 per cent but job creating capacity of the economy has not improved much.
2. **Growing Population** : Population has increased at a very fast pace since Independence but jobs have failed to keep pace with the population.
3. **Inappropriate technology** : India is a labour surplus and capital scarce economy. Under such circumstances, labour-intensive industries should have been given preference. But not only in industry but also in agriculture producers are increasingly substituting capital for labour. This has hindered the growth of job opportunities.
4. **Inappropriate education system** : The education provided in India has not much practical utility. The students receiving such education, even very high one, fail to get appropriate jobs.

3.3 EXTENT OF UNEMPLOYMENT IN INDIA

Before understanding the incidence of unemployment, it is better to understand the meaning of labour force, work force and unemployment rate.

Labour force : Labour force or in other words, the economically active population refers to the population which supplies or seeks to supply labour for production and, therefore, includes both 'employed' and 'unemployed' persons and the labour-force participation rate (LFPR) is defined as the number of persons in the labour force per 1000 persons.

Work-force : Work force is a part of labour force and refers to the population which is employed. Thus work force participation rate (WPR) is defined as the number of persons/ person-days employed per 1000 person/person days in the labour force.

Unemployed rate : Unemployment rate is defined as the number of persons unemployed per thousand persons in the labour-force.

Measurement of Unemployment: There are three main measures of employment and unemployment.

1. **Usual Status (US)** : This measure estimates the number of persons who may be said to be chronically unemployed. This measure generally gives the lowest estimate of unemployment especially for a poor economy because only a few can afford to remain without work over a long period.

2. **Current Weekly Status (CWS)** : This estimate reduces the reference period i.e. the period for which data is collected to one week. According to this estimate a person is said to be employed for the week even if he is employed only for a day during that week.
3. **Current Daily Status (CDS)** : The reference period here is a day. It counts every half day's activity status of the respondent over the week. For working out the rate of unemployed person-days the aggregated count of unemployed days during the reference weeks constitutes the numerator and the aggregated estimate of the total number of labour force days constitutes the denominator.

The backlog of unemployment at the beginning of the FYP-1 was 3.3 million to which were added 9.0 million new entrants during this period. The Plan provided additional employment to 7.0 million, thus leaving a back log of 5.3 million at the beginning of the FYP-2. In the subsequent plans, the back log has been continuously increasing, since the new jobs created during each plan period invariably fell short of new entrants to the labour force.

The Eleventh Plan (2007-12) aimed at generation of 58 million work opportunities. As per the latest data, during 1999-2000 to 2004-05, employment (US) increased by 59.9 million persons, but during 2004-05 to 2009-10, the increase in employment (US) was only 1.1 million persons. It picked up again during 2009-10 to 2011-12, adding 13.9 million persons to the workforce. During 2004-05 to 2011-12, employment growth was only 0.5 per cent per annum as per usual status compared to the growth rate of 2.8. Based on CDS, the growth rate in employment was 1.2 and 2.6 per cent respectively for the same periods.

If we look into the data on unemployment in India we find that the unemployment rates have first decreased then risen and then fallen again. This is clear from the following Table:

**Table 9 : Unemployment Rate
Current Daily Status Basis**

1983	9.22
1993-94	6.06
1999-00	7.31
2004-05	8.28
2007-08	8.10
2009-10	6.60
2011-12	5.60

Source : NSSO (Verious Rounds)

- While employment growth has been lower in 2009-10 and 2011-12, unemployment rate continued to hover around 2 per cent under US but fell under CDS to 5.6 per cent from 6.6 per cent.
- The fall in unemployment despite marginal growth in employment in 2009-10 and 2011-12 could also be account of the demographic dividend, as an increasing proportion of the younger population opts for education rather participating in the labour market.



- In India, although there has been increase in employment in non-agricultural sectors—manufacturing and services, increase in employment in these sectors has not been very encouraging. The largest shortfall in employment generation has been in manufacturing.

NSSO - 68th Round

NSSO - 68th Round the latest round of National Sample Survey on employment was conducted by National Sample Survey Organisation (NSSO) during 2011-12.

The following table shows that the labour force participate rate, work force participation rate and person unemployed in 2011-12 in India.

Table 10 : All India Labour force Participation Rate (2011-12) (NSSO - 68th round)
(Number of persons per thousand population)

	<i>WPR</i>	<i>PU</i>	<i>LFPR</i>	<i>PU/LFPR ×100</i>
US	386	9	395	2.3%
CWS	364	14	377	3.7%
CDS	339	20	359	5.6%

WPR = Work Force Participation Rate
PU = Persons Unemployed
LFPR = Labour Force Participation Rate

The above table shows that in the year 2011-12, out of 1000 persons in the population, 395 persons were in the labour force according to US. Out of 395, 386 were working and 9 were unemployed. In other words, unemployed persons as percentage of labour force were 2.3 considering US. Similarly according to CWS and CDS, the unemployment rates were 3.7 per cent and 5.6 per cent respectively. The extent of unemployment actually varies considerably depending on the measure chosen. For example, the unemployment rate for the year 2011-12 in India is a low 2.3% based on US definition but it rises to 5.6% based on the CDS definition. (Table 10).

As per the Survey, the following are the salient features of the trend of employment and unemployment in India:

- According to the usual status, about 40 per cent of population belonged to the labour force.
- Almost 98 per cent of the Labour force was employed according to usual status.
- The male WPR in both the rural and urban areas was considerably higher than female WPR. Women comprise 48.3% of the population but have only 23% share in persons employed.
- The WPRs according to the CDS were the lowest.
- At the all India level, unemployment rate was 5.6 per cent in the CDS approach. The unemployment rate stood at 3.7 per cent in CWS approach and 2.3 per cent in the US approach.
- In the rural areas, generally, the female unemployment rate was almost same as the male unemployment rate (nearly 2 percent).

- In the urban areas, generally, the female unemployment rate was higher than the male unemployment rate.

In order to assess the degree of unemployment in India it is relevant to compare the incidence of unemployment with unemployment in other countries. The table below broadly shows the unemployment rates in selected countries :

Table 11 : Unemployment in Selected Countries (*per cent*)

Country	2013
India	8.8
Australia	5.7
Bangladesh	5.0
China	4.1
Indonesia	6.6
Japan	4.1
Malaysia	3.1
Pakistan	6.6
Sri Lanka	5.1

(Source : World Factbook)

Recent Approach of government to solve the problem of unemployment.

The Eleventh Plan targeted generation of additional employment opportunities in services and manufacturing, in particular, labour intensive manufacturing sectors such as food processing, leather products, footwear and textiles and in services sectors such as tourism and construction and village and small scale enterprises.

It underlined the need to have a proper policy on developing skills. Therefore, a National Policy on Skill Development was formulated in 2009 which envisions empowering all individuals through improved skills, knowledge, and nationally and internationally recognized qualification to gain access to decent employment and ensure India's competitiveness in the global market.

Educated youth are expected to join the labour force in increasing numbers during the 12th Plan. The 12th Plan therefore lays great stress on improving job opportunities in manufacturing sector, agro-processing, supply chains, rural infrastructure and services. It lays high stress on skill building as it is critical for achieving faster, sustainable and inclusive growth on the one hand and for providing decent employment opportunities to the growing young population on the other.

It has identified priority sectors for employment generation and skill development. These include, Textiles and Garments, Leather and Footwear, Gems and Jewellery, Food Processing Industries, Handlooms and Handicrafts, Machine Tools, IT Hardware and Electronics, Telecommunications equipment, Aerospace Shipping, Defense Equipment, etc.

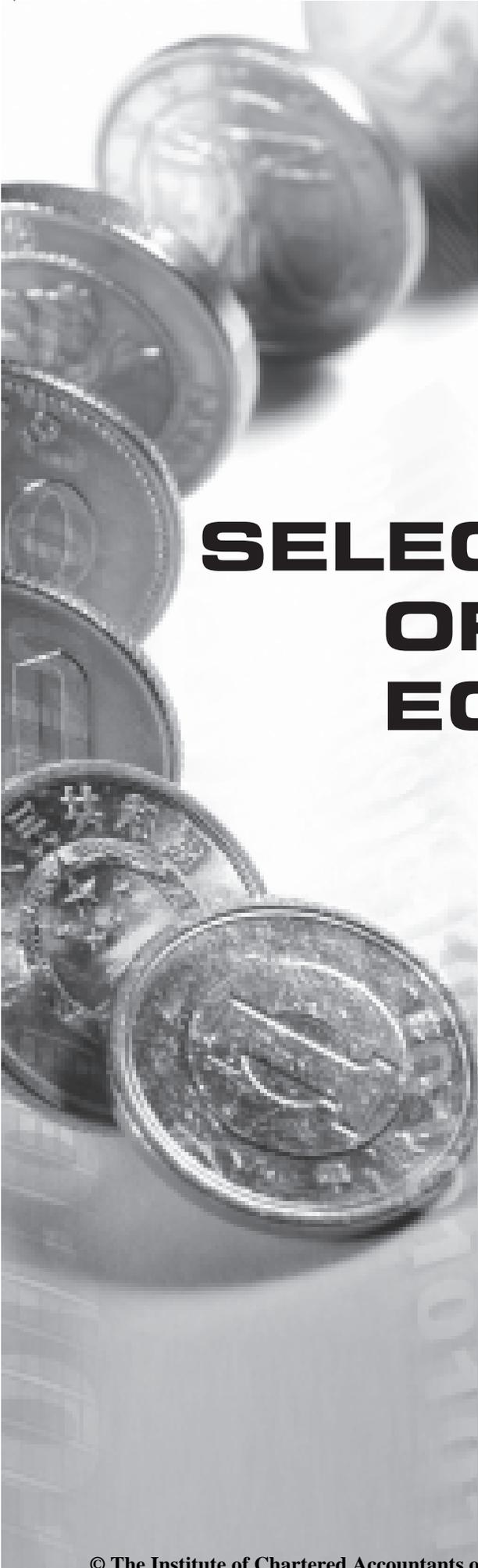


SUMMARY

- A person who is not gainfully employed is called unemployed. From the economic point of view unemployment means inefficient utilization of human resources, lower production and therefore lower standard of living.
- Unemployment is a complex phenomenon and takes many forms like
 - Voluntary unemployment
 - Frictional unemployment
 - Casual unemployment
 - Seasonal unemployment
 - Structural unemployment
 - Technological unemployment
 - Cyclical unemployment
 - Chronic unemployment
 - Disguised unemployment
- In India, the problem of unemployment has become serious as around 5.6% of the labour force is unemployed.
- If we consider the nature of unemployment in India, we find that most of the unemployment is structural in nature.
- In urban areas, unemployment is mainly in the form of industrial unemployment and educational unemployment.
- In rural area, unemployment is mainly in the form of seasonal unemployment and disguised unemployment.
- The various causes for the incidence of unemployment in India are
 - Over population
 - Inappropriate technology
 - Faulty education system
 - Failure of growth process in generating appropriate and adequate jobs.
- Labour force means population which seeks to supply labour for production
- Work force is that part of labour force, which is employed
- Unemployment rate is defined as number of persons unemployed per thousand persons in the labour-force.

SELECT ASPECTS OF INDIAN ECONOMY

- There are three main measurements of employment and unemployment
 - Usual status – The number of persons who may be said to be chronically unemployed
 - Current Weekly status – The reference period is a week
 - Current Daily status – The reference period is a day
- The Eleventh Plan and Twelfth Plan target to provide employment opportunities in services and manufacturing units. The main stress is on skill development.



CHAPTER – 6

SELECT ASPECTS OF INDIAN ECONOMY

Unit 4

Infrastructural Challenges

Learning Objectives

At the end of this unit, you will be able to:

- ◆ understand how infrastructure plays an important role in the economic development of an economy.
- ◆ know the various important infrastructural services.
- ◆ understand various sources of energy.
- ◆ understand the various problems related to energy.
- ◆ know how various means of transportation and communication in India have developed over the years.
- ◆ understand how means of transportation and communication provide an important link between production, distribution and ultimate consumers.
- ◆ understand how over the years medical services have improved but still India's overall health is low.
- ◆ understand education system in India and the problems which it suffers.

Infrastructure plays an important role in the economic development of an economy. It can quicken or impede the development of an economy. In this section, we will discuss five important infrastructural services viz. energy, transport, communication, education and health.

4.0 ENERGY

Energy is an important input for most of the production processes and consumption activities. It plays a crucial role in the economic development. Economic growth and demand for energy are positively co-related. A study shows a 3 per cent rise in industrial production in the world is accompanied by a 2 per cent increase in energy consumption. A similar relation is also observed in India.

India is both a major energy producer and consumer. India currently ranks as the world's sixth largest energy producer, accounting for about 3 per cent of the world's total energy production. It is also the world's fourth energy consumer after China, U.S.A. and Russia accounting for about 5 per cent of the world's total energy consumption. However, it is noteworthy that India's per capita energy consumption is one of the lowest in the world.

In India, 22 per cent of the population is below the poverty line and more than 50 per cent of the population does not have the purchasing power to enter the market for commercial energy. This part of the population living mostly in rural areas depends upon non-commercial traditional sources of energy such as firewood, dung cakes and agricultural wastes. At present, nearly 22 per cent of the energy consumed is obtained from non-commercial sources or traditional sources. The rest is commercial energy and is obtained from oil and gas, coal, hydro-electricity and nuclear power. Production of nuclear power has started, but it is not much.

There is a distinction between primary energy resources and final energy resources. When coal is consumed for generating electricity and electricity is consumed by industry, we call coal as primary energy resource and electricity as the final one. Coal, petroleum products and natural gas are both primary resources and final resources as they are consumed directly as well as indirectly, while electricity is, by and large, the only final energy resource.



Major users of electricity are industry (37 per cent), domestic (25 per cent), agriculture (21 per cent) and commercial establishment (10 per cent). We shall concentrate on electricity as it is the main mover of manufacturing industry.

4.0.0 Electricity: Electricity or power is the most important source of commercial energy. Over the planning era, the production and consumption of electricity has increased tremendously. Our total installed capacity of generating power was around 2300 Mega Watt (MW) in 1950-51. It increased to 117800 MW in 2000-01 and further to about more than 2,49,000 MW in 2013-14. Thus, over a period of 63 years, there has been more than 100 times increase in the installed capacity. We are roughly adding 4000-5000 MW every year.

4.0.1 Sources of Electricity: There are 5 major sources of electricity (1) water (2) coal (3) oil (4) gas and (5) radio active elements like uranium, thorium and plutonium. Electricity generated from water is known as hydro-electricity. Electricity generated from coal, oil and gas is called thermal electricity and electricity generated from radio-active elements is called atomic energy. Of the present capacity, 69 per cent is in the thermal (coal, gas and oil), 17 per cent in the hydel 2 per cent is in the nuclear and 12 per cent is in the other renewable (wind, bio-gas, waste etc.) sectors. In terms of generation of power, thermal plus renewable energy sources is contributing 82 per cent, hydel around 14.5 per cent and nuclear 3.5 per cent.

The central government, state governments and private sector all work together in the generation of power.

The Ministry of Power is responsible for planning and implementing India's power sector policy, with various subunits handling different parts of the sector, including thermal, hydropower, and distribution. The Central Electricity Authority (CEA) advises the central government on long- and short-term policy planning. The Central Electricity Regulatory Commission and State Electricity Regulatory Commissions set generation and transmission policies.

The source of India's current electricity regulatory framework is the 2003 Electricity Act, which attempted to reform the state electricity boards, open access to transmission and distribution networks, and create state electricity regulatory commissions (SERCs) to manage electricity on a regional basis. Several key private investors, namely Reliance Power, Tata Power, and Essar Power, have entered India's power generation sector, and the share of private sector to state-run generation capacity is on the rise. The government has not fully implemented many parts of the Act, and The Central Government operates through National Thermal Power Corporation (NTPC), National Hydroelectric Power Corporation (NHPC) and Nuclear Power Corporation of India Limited (NPCIL). State governments have their State Electricity Boards (SEBs).

4.0.2 Difficulties and Problems relating to energy : India's electricity sector continues to face serious challenges in procurement and distribution of sufficient fuel for generation.

(1) **Demand and Supply imbalances in commercial fuels :** The demand for energy, particularly for commercial energy, has been growing rapidly with the growth of the economy, change in the demographic structure, rising urbanisation, social-economic development and desire for attaining and sustaining self reliance in the economy. The supply has not increased concurrently.

Table 12 gives the trend of primary commercial energy demand and supply between 1960-61 to 2011-12.

Table 12
Trends in Demand and Supply of Primary Energy

(Million Tonne of Oil Equivalent)

	2000-01	2006-07	2011-12	2016-17
Domestic production of commercial energy	343.09	416.56	513.92	669.50
Net Imports	89.01	132.04	196.87	267.76
Total Energy Demand Out of which	432.10	549.60	710.79	937.26
(i) Commercial energy	295.46	396.32	536.59	749.60
(ii) Non- commercial energy	136.64	153.28	174.20	187.66

Source: Twelfth Plan

We can see from the table that in 2011-12, out of the 710 mtoe of primary energy demand, 536 mtoe demand was for commercial energy and 174 mtoe was for non commercial energy. Out of 536 mtoe demand for commercial energy, 514 mtoe was domestically produced and 197 mtoe was imported. Non commercial energy (174 mtoe) was produced and consumed domestically. Thus, we notice that about 36 per cent of the demand for commercial energy was met through imports.

According to the Approach Paper to Twelfth Plan, to achieve the target of 9 per cent growth rate in GDP during the XII Plan, energy supply will have to grow at 6.5 per cent per annum. The primary commercial energy (oil, natural gas, LNG, coal, hydro etc.) required at the end of 2016-17 would be about 750 million tones of oil equivalent, out of this nearly 36 per cent would have to be imported.

Thus we see that in coming years the demand for energy will continue to grow and India will have to increase the supply of commercial fuels in order to not avoid energy crisis but also sustain 9 per cent growth rate.

- (2) **Oil prices and inflationary pressure** : Since 1973, oil prices have been rising in the international market. During 1973-2014, the Organisation of Petroleum Exporting Countries (OPEC) has increased the prices many folds. This has contributed to the inflationary pressure in India. Mineral oil is presently the major source of energy for transport, industry and agriculture. It is also used as household fuel. Therefore, rising oil prices has led to rising general prices in India.
- (3) **Growing oil imports bill** : Since 1973, India's oil imports bill has increased substantially. In 1973-74 India's oil import bill was ₹ 1100 crore. It increased to ₹ 10,816 crore in 1990-91 and to a record level of more than ₹ 10,00,000 crore in 2013-14. Petroleum, oil and lubricants (POL) constitute around 37 per cent of our import bill. The oil import bill is also responsible to a great extent for the existing large balance of trade gap.
- (4) **Transmission and distribution losses** : One of the major problems faced by the power companies are transmission and distribution (T&D) losses. The T&D losses are very high in many of the SEB systems. These losses include substantial amount of theft of power. National average of this loss is more than 20 per cent while in many states it is more.
- (5) **Sick SEBs** : Many SEBs have become financially sick. A large portion of these losses is



accounted for by almost free supply of power to agriculture. Besides, operational inefficiencies, high cost structure, lower power tariffs and large overdues have made SEBs sick.

- (6) **Operational inefficiency** : Most of the thermal power plants are operating inefficiently. Plant load factor (PLF) measures the operational efficiency of a thermal plant. If total generating capacity is say 600 billion kilo-watt hours (kwh) and we are producing only 300 billion kwh, plant load factor here is 50. PLF during 2013-14 declined to 65 per cent compared to a PLF of 70 percent in 2012-13. Plant load factor varies across the regions. It is lowest in Eastern region (62 per cent in 2012-13) and highest in *Southern* region (81 per cent in 2012-13). If we consider SEBs, central sector and private sector, we find that PLF was 65 per cent in SEBs, 79 per cent in central sector and 79 per cent in the private sector in 2012-13.
- (7) **Inadequate electrification** : Till date, many of villages are not electrified. In many villages, there are a very few houses which are lighted. This is sad considering the fact that more than 60 years have passed since we got Independence and still our rural areas are without electricity.

4.0.3 Recent steps taken to meet the above problem

- (1) In order to improve production of power, Electricity Act was passed in 2003 and Electricity Amendment Bills 2005 was passed in 2005. The focus is on improved investment in power sector and fixing of power tariffs on the basis of competition, efficiency, economical use of resources, commercial principles and consumers' interests.

Certain provisions of the Electricity Act 2003 were amended in 2007 by passing of Electricity (Amendment Act) 2007.

- (2) To improve generation of power, Ministry of Power launched the 'Partnership in Excellence' programme. Under the programme, 26 thermal stations with PLF less than 60 per cent have been identified. Steps will be taken to improve their efficiency.
- (3) Steps are being taken to improve and add electricity-generating capacity of the plants.
- (4) Government is encouraging the use of hydel and wind energy sources which do not rely on fossil fuels and avoid carbon emissions.
- (5) Steps have been taken to turn around SEBs. These include, rationalization of tariff structure particularly the prices charged by the SEBs from various categories of consumers, monitoring of cost structure, optimum utilization of existing capacity.
- (6) The greatest weakness in the power sector is on the distribution side. Aggregate Technical and Commercial (AT&C) losses of most State Power Utilities (SPUs) remain high. In order to redress the problem the Accelerated Power Development and Reforms Programme (APDRP) was initiated in 2002-03. Although at the national level the AT&T losses have not come down much, the losses have come down in towns where APDRP has been implemented. The APDRP has been restructured. The focus of restructured APDRP is reduction in AT & T losses.

In order to reduce transmission losses, distribution reforms have been carried out. In 2002, power sector was privatized in Delhi. The experience of privatization in Delhi has been encouraging. For example, there the quality of power has improved, load shedding has come down and the average response time for attending breakdowns has also come down.

- (7) Government is encouraging private sector investment in power. Competition in the electricity sector has been augmented by having an open access system allowing a buyer to choose his seller.

The key initiatives in this regard include permitting private sector to set up coal, gas, or liquid based projects of any size, allowing gradual entry in distribution and encouraging foreign equity and participation. In 2013, the government has allowed Automatic approval (RBI) route for 100 per cent foreign equity in generation, transmission and trading in the power sector.

- (8) An All India Power Grid, also called National Grid has been developed to even out supply-demand mismatches. This has enabled inter-regional energy exchanges of about 49000 million units in the financial year April - December 2012, thus contributing to greater utilisation of generation capacity and improved power supply position.
- (9) Nine sites were identified for the development of Ultra-Mega Power Plants (UMPPs) with capacity of 4000 MW each. Four of the UMPPs are already at different stages of implementation.
- (10) Steps are being taken to provide access to electricity to all areas including villages and hamlets. For this, 'Rajiv Gandhi Grameen Vidhyutikaran' programme was started in 2005.

The Scheme provides for free electricity connections to below poverty line (BPL) households. Rural Electrification Corporations is the nodal agency for this. Under the scheme, more than 1,00,000 villages have been electrified and connections to more than 200 lakh BPL households have been released.

Besides the above, certain Steps have been taken to encourage conservation of energy. These include, giving energy conservation awards to deserving industries, encouraging use of Compact Fluorescent Lamps (CFLs) and promoting energy efficient equipments etc. The Bureau of Energy Efficiency (BEE) has taken initiatives to promote energy efficiency.

4.1 TRANSPORTATION

Today, along with energy, transport is the basic infrastructural requirement for industrialization. Transport provides a useful link between production centers, distribution areas and ultimate consumers. Important means of transport are railways, roads, water transport and air transport.

4.1.0 Railways : Indian Railways, is the fourth largest railway network in the world. It has been contributing to the industrial and economic landscape for over 165 years. There are two main segments of railways - freight and passenger. The freight segment accounts for about 70 per cent of revenues and passengers thirty per cent of revenues. The total route length of railways is about 65,400 kilometers. Out of which about 21 thousand kilometers is electrified. During 2012-13 it carried more than 8400 million of passengers and more than 1 billion tonnes of freight traffic. Railways however, faces the following problems:

- (1) The existing technology of both electric and diesel locomotive is very old. The entire system is in urgent need of modernization.
- (2) The railway network is smaller and inadequate vis-à-vis the requirements of the economy.
- (3) The railways is facing the problem of financial crunch. The conventional methods of increasing the net revenue, like raising of tariffs and expenditure control are inadequate for generating the levels of investment required.
- (4) Because of social responsibilities, railways is forced to operate a number of unremunerative



lines and suffer heavy losses. Often, essential goods like foodgrains, fruits and vegetables have to be carried at a loss.

- (5) Railways also suffers from over crowding and poor passenger services.
- (6) There is need to develop safety measures on an extensive scale.

In order to meet the above challenges, railways is trying to improve resource management. Rational price policy, increased wagon load, faster turnaround time, Public-Private Partnerships (PPPs), double line freight corridor for efficient freight movements are some of the steps taken in recent years to improve railway's performance.

During the Twelfth Plan, the railways focus would be on construction of six dedicated freight corridors, segregation of freight and passengers lines, providing improved connectivity to industry cluster and ports, creation of additional Capacity, modernization, and overall improvement in productivity.

4.1.1 Road: The Indian road network is second largest network in the world. At the beginning of the first plan, India had about 4,00,000 kms of total road length out of which 1,57,000 kms was surfaced road. Today, India has a network of 4.86 million kilometre. Out of this, more than half is surfaced. The National Highways which comprise less than 2 per cent of total length of roads now encompass a road length of 92,851 kms. and carry more than 40 per cent of the total road traffic. In order to connect all major cities by four-lane highways, a new scheme called "Pradhanmantri Bharat Jodo Pariyojana" was started. Recognising that rural connectivity is a key component of rural development and poverty alleviation in India, the Government of India, undertook the Pradhan Mantri Gram Sadak Yojana (PMGSY). Rural roads network now connects around 65 per cent all weather roads. Roads occupy a crucial position in the transportation matrix of India as they carry nearly 65 per cent of freight and more than 80 per cent of passenger traffic.

Problems of road transport : Following problems are faced in the case of road transport:

- (1) The road length is inadequate considering the size of the country.
- (2) A number of areas, particularly interior areas and hilly tracts remain to be linked with roads.
- (3) Large tracts of rural roads are mud roads which cannot be used for plying heavy traffic.
- (4) A number of urban roads are also poorly maintained. This is due to constraints of financial resources, organizational inadequacies, procedural delays, shortage of essential materials etc.
- (5) Most of the State Road Transport Corporations are running on heavy losses. This is because of rising cost of operations, inefficiency in operations and corruption.

In order to overcome the above problems a number of steps have been taken. These include, undertaking the National Highways Development Project (NHDP) which involves developing Golden Quadrilateral (Mumbai, Delhi, Chennai and Kolkata), North-South and East-West corridors, Port connectivity and other projects, PPP in roads developments and rationalisation of taxes etc.

During XI Plan, apart from completing NHDP I and II, work was started on, NHDP III, IV, V and VI to ensure inter-regional connectivity of districts, converting single lane roads to two – lanes roads, constructing expressways in high traffic corridors, etc. Twelfth Plan aims to complete

these projects and also work on State Highways and District roads to ensure full connectivity.

It also aims to connect the remaining rural habitations by constructing new roads and upgrading existing roads.

4.1.2 Water transport: Water transport can be divided into inland water transport and shipping. Shipping can again be divided into coastal shipping and overseas shipping.

India has about 14500 km of navigable waterways which comprise rivers, canals, backwaters creeks etc. About 50 million tonnes of cargo is being annually moved by inland water transport. Over the years, the importance of this mode of transport has declined considerably due to expansion of rail and road transport and navigational inadequacies. The government approved the Inland Water Transport Policy which includes a number of incentives to encourage private sector participation in inland water transport.

Currently, there are five waterways which have been declared as National Waterways (NWs). The Eleventh Plan aimed at making the existing waterways fully operational and adding three more waterways to the NWs.

According to the Approach Paper to XII Plan, since the inland waterways provide a clean and efficient mechanism for transportation of goods across regions where quite often road movement may not be feasible or be more expensive, there is a need to develop this sector

India has a long coastline of 7,517 kms, 12 major ports and over 200 minor ports and a vast hinterland. Coastal shipping is very energy efficient and cheapest mode of transport for carrying bulk goods (like iron and steel, iron-ore, coal, timber etc.) over long distances. However, there had been a sharp decline in coastal shipping operations during 1960s and 1970s. The Gross Tonnage (GT) fell from 0.31 million in 1961 to 0.25 million in 1980. However, there was an improvement in the coastal shipping in 2001 as coastal tonnage rose to 0.70 million. There was further improvement in the ensuing year as coastal tonnage increased to 0.80 million in 2003 and further to 1.08 million in 2013. The main factors for poor growth of coastal shipping have been (1) high transportation costs (2) port delays (3) over-aged vessels (4) lack of mechanical handling facilities (5) imbalance in coastal traffic movement and (6) slow handling of the cargo at ports. These inflict heavy losses on shipping companies.

Almost 95 per cent of India's global merchandise trade is carried through the sea route. India's overseas shipping has improved over the planning period. The country has one of the largest merchant and shipping fleet among developing countries. As compared to .192 million Gross Tonnage (GT) at the time of Independence shipping tonnage was about 10.3 million in 2013. The fleet at the end of March 2013 was 1186 vessels (1 per cent of world fleet).

Since ports are very important for coastal and overseas shipping, special efforts have been made in the Five Years Plans for the development and modernization of existing ports and establishment of new ports. The total traffic carried by the major ports was about 555 million tonnes during 2013-14. The 12 major ports carry about 57 per cent of the total traffic, with Kandla as the top traffic handler in each of the last *five* years.

Problems faced by Indian ports : The main problems are low productivity and poor competitiveness. Major factors contributing to these are:

- Operational constraints such as frequent breakdown of cargo handling equipment due to obsolescence.



- Inadequate dredging and container handling facilities.
- Inefficient and non optimal deployment of port equipment.
- Lack of proper coordination in the entire chain.
- Indian containers are costlier than other ports in the region for handling containers. The additional cost burden due to use of second and third generation vessels has been estimated at U.S. \$ 250 million a year. Container delays at Indian ports cost U. S. \$ 70 million a year.

4.1.3 Air transport: Air transports is the preferred mode of transport especially for long distance travel, business travel, accessing difficult terrains and for transporting high value and perishable commodities. In the civil aviation sector, there are three parts – operational, infrastructural and developmental. The first is the operational. There are 10 scheduled passenger operators (three in public sector - Air India Ltd., Air India Charters Ltd. and Air Lines Allied services and seven in private sector) and three cargo operators in the country with the combined fleet size of 413 aircrafts. Indian Airlines and Air India were amalgamated with National Aviation Company Ltd. (NACIL) With effect from November 2010, the name of National Aviation Company Ltd., has been changed to Air India Ltd.

The private sector is now playing a crucial role in the development of both airline and airport sector. Its market share in the domestic traffic during 2012 reached more than 82 per cent from near 50 per cent share earlier.

Regarding infrastructural facilities, Airport Authority of India (AAI) is the main organization managing 125 airports across the country. The Private sector by way of participating in public-private partnership (PPP) has also been playing an important role in developing airport infrastructure in India. During the Eleventh Plan, five international airport projects were successfully completed through the PPP mode, viz. Greenfield development of Hyderabad and Bengaluru international airports and modernisation of Kochi, Delhi and Mumbai international airports. AAI is upgrading and modernising 35 non-metro airports in the country. AAI is also enhancing air connectivity in the North-East by way of Greenfield airport at Sikkim.

Regarding regulatory cum developmental aspect, the Department of Civil Aviation, Government of India, is responsible for it. International services are governed by bilateral agreements.

The Airport Economic Regulatory Authority (AERA) was established in the Eleventh Plan to safeguard the interests of users and service providers at Indian airports.

Domestic passenger traffic handled at Indian airports reached 122 million during 2013-14 5 per cent more than handled in the previous year. International passenger traffic was placed at about 46.6 million during 2013-14, registering a growth of 8.3 per cent over the last year.

Other Recent important developments in the airline and airport sector included: (i) liberalization of FDI limit upto 100% through automatic route for setting up Greenfield airports; (ii) A Civil Aviation Economic Advisory Council (CAEAC) was set up to look into the economic issues facing the civil aviation sector. (iii) liberalization of bilateral air services agreement in line with the contemporary developments in international civil aviation sector; (iv) adoption of a limited Open Sky Policy in international travel to meet the traffic demand during peak season; and (v) adoption of trade facilitation measures in custom procedures to facilitate speedy clearance of air cargo. (vi) For seamless navigation of civil aircrafts, a GPS-aided GEO augmented Navigation (GAGAN) project is being implemented. (vii) The Domestic Air Transport Policy

approved by the government provides for foreign equity participation up to 49 per cent and investment by non-resident Indians (NRIs) up to 100 per cent in the domestic air transport services. With a view to attracting new technology and management expertise, government has permitted up to 49 per cent Foreign Direct Investment (FDI) by foreign airlines in Indian airline companies.

It is estimated that international and domestic passengers would increase by 12 and 8 percent per annum respectively in the 12th plan. International and domestic cargo traffic is expected to grow at the rate 12 and 10 percent per annum respectively in the Twelfth Plan. The Twelfth Plan lays stress on increasing the airport and aircraft capacities and improving the airport infrastructure in order cope with the increased demand placed on aviation sector.

4.2 COMMUNICATION

Communication means transmission of information. For the development of industries, commerce and trade in the country, communication is very necessary. The important means of communications are the postal services, telephone services, tele printers, radio and television etc. Telephone, tele-fax and e-mail have been gradually evolving and telex and telegraph are getting out of fashion.

4.2.0 Postal services: India's postal system dates back to 1837 and today our postal network is the largest *network* in the world. Today, we have more than 1.55 lakh post offices and out of which around 90 per cent are in the rural areas. On an average, one post office serves 7175 persons and 21.21 sq. km area. Postal services suffer from many weaknesses such as inadequate number of post offices, use of outdated techniques, delays in reaching of posted material etc. A number of steps have been taken for resolving these problems. Such as speed post, business post, express parcel post, media post, speed post, logistics post, etc. services have been introduced. With a view to improve the speed and volume of transactions, a range of e-enabled services such as electronic money order (eMO), e-payment and Instant Money Order (IMO) have been started. To provide better services, mechanization and computerization of postal operations is being progressively introduced. Automatic mail processing centers (AMPC) have been set up at various places for faster processing of mails. E-post services were started in 2001 in some states. Under e-bill post, customers are able to pay multiple utility bills at post office counters. They are now being upgraded for multiple messaging to make them useful for corporate houses. This is a major initiative to provide user-friendly services to its vast customer base. 'Logistics Posts', 'Retail Post Services' are other new services which are now being provided. Post offices are also providing a number of financial products such as saving bank and saving certificate, postal life insurance, non life insurance products, mutual funds etc.

Besides the above, the Department of Posts launched a pilot project "Project Arrow" with the aim of providing fast and reliable postal services to the consumers. Indian Post is emerging as a one - stop shop for retail products and offers a single window facility for banking, money remittances and other financial products. India Post is pursuing the objective of financial inclusion through its post offices in rural and urban areas.

The 12th plan aims at expansion of post office network, setting up of Post Bank of India, modernisation of post offices to facilitate quicker postal services and contribute more towards financial inclusion.



4.2.1 Telecommunications: Communications all over the world has progressed rapidly and the most important factor accounting for increased communication has been the development of telecommunications which include (i) the telephone service, and (ii) the telex service. At the time of Independence, India had a total of only 321 telephone exchanges with about 8200 working connections. There were only 338 long distance public call offices and 3324 telegraph offices. The growth of telecommunications has gained momentum after Independence and by March, 2014 India had about 935 million connections (wireline and wireless). As on December 2011, more than 5.8 lakh villages were connected using a village public telephone (VPT). Thus, 98 per cent of villages in India have been covered by the VPTs.

India's telephone network is the second largest in the world (after China) with a tele density (number of phones per 100 persons) of 75.23 percent. While tele density in rural areas is 44 percent, the urban tele density shot up to 145 percent in March, 2014.

A type of revolution has taken place in the field of telecommunications in recent years. A number of value-added services like radio paging services, cellular mobile telephone service, electronic mail, public mobile radio trunked service, voice mail, video tax, video conferencing etc. have been started. Upto March 2014, there were more than 900 million subscribers of cellular mobile telephone services. The two PSUs in the telecom sector - Bharat Sanchar Nigam Limited (BSNL) and Mahanagar Telephone Nigam Limited (MTNL) have been losing their market shares in fixed telephony. Apart from this, there has been significant growth in the internet connections and broadband subscribers. The internet connections increased from 0.01 million in 1995 to around 165 million in March 2013 and broadband subscribers have increased from 0.49 lakh in December 2004 to about 15 million in March, 2013. Regulatory framework and functions are carried out by Telecom Regulatory Authority of India (TRAI) and now the National Internet Exchange of India (NIXI) has been set up to ensure that internet traffic originated and destined for India, is routed within India.

New developments in the field of telecommunications includes, ushering of third generation (3G)/(4G) telecom services, mobile number portability (MNP), manufacturing of complete range of wireline telecom equipments using state of art technology in India. Foreign Direct Investment ceiling has been raised to 100 percent from 74 percent earlier. In view of the fact that telecommunication has emerged as a key driver of economic and social development in the global scenario, a National Telecom Policy (NTP) was announced in 2012. NTP -2012 endeavors to create an investor friendly environment for attracting additional investments in the sector apart from generating manifold employment opportunities in various segments of the sector. Availability of affordable and effective communications for the citizens is the main aim of the Policy.

Twelfth Plan aims at

- Provision of 1,200 million connections by 2017.
- Mobile access to all villages and increase rural tele - density to 70 per cent by 2017.
- Broadband connection of 175 million by 2017.
- Commissioning of National Optical Fibre Network (NOFN)
- Making India a hub for telecom equipment.

- Provide preferential market access for indigenously manufactured products.
- To increase domestic manufactured products in telecom network to the extent of 60 per cent with value addition of 45 per cent by 2017.
- Adoption of green policy in Telecom and incentivize use of renewable energy sources.

4.3 HEALTH

For good health, two things are essential: (1) balanced and nutritional diet and (2) medical care. The general health standard in India is quite low. This is quite inevitable as 22% of the population lives below the poverty line. These people do not have nutritional diet, adequate medical care and hygienic conditions. As a result, the overall health conditions are poor in India. Prevalence of child under weight and child malnutrition is widespread across states. It is not that nothing has been done on the health front but they are far from satisfactory. The following table shows trends in health care in India since Independence.

Table 13 : Trends in Health Care

	<i>1951</i>	<i>1981</i>	<i>2012</i>
Health centers	725	57,353	1,77,248
Dispensaries + Hospitals	9,209	23,555	63,002 (Government + AYUSH)
Beds	1,17,198	5,69,495	11,75,374 (2008 year)
Nursing personnel	18,054	1,43,887	18,94,968 (2010)
Doctors (Modern)	61,800	2,68,700	8,83,812

Under the various plans, health development programmes have been integrated with family welfare and nutritional programmes for vulnerable sections – children, pregnant women and nursing women. These programmes focussed on increasing health services in rural areas, intensification of the control of communicable diseases like small pox, malaria and leprosy, improvement in education and training of health personnel etc. Since sixth plan there has been a change in the whole approach towards health services. Under the new approach, the focus is not on providing hospitals but on providing better health and medical care services to the poor people. A community based programme on health care and medical services in rural areas was launched. Apart from developing rural health services, the control of communicable diseases is now being given the highest priority. Since diseases like, T.B., malaria, gastrointestinal infections are related with unhygienic sanitation, efforts have been intensified in providing hygienic conditions and opening new hospitals and strengthening existing hospitals especially in rural areas. In order to bridge the gap between existing health infrastructure and to provide affordable and equitable health care, a large number of schemes have been started in India. Important among them are:

- The National Rural Health Mission (NR HM) was started in 2005 to provide accessible, affordable, and quality health services to rural areas. Seeing its success in the rural areas, the government extended it to towns as National Urban Health Mission. In 2013, (NHM) it was launched subsuming NRHM and NUHM).



- Accredited Social Health Activists (ASHAs) have been selected and trained in health care for various villages.
- Janani Suraksha Yojana was started to bring down maternal mortality rate in India.
- Pradhan Mantri Swasthya Yojana was launched with the objectives of correcting regional imbalances in the availability of reliable health care services in the country.
- Janani Shishu Suraksha Karyakaram (JSSK) was launched for mother and child care. Under the programme, free entitlements are given to pregnant women and sick new borns for cashless delivery, drugs and consumables, diet etc.
- National Vector borne Disease control Programme is being implemented for prevention and control of vector borne diseases such as malaria, filariasis, kala-azar, dengue, etc.
- Apart from these, there are Rogi Kalyan Samitis, Village Health and Sanitation Committees, Mobile Medical Units, AYUSH services, Integrated Child Development Services, Rajiv Gandhi Scheme for Empowerment of Adolescent Girls - sabla. National Programme for health care of the elderly and many other schemes for improving the health services in India.

As a result of these efforts, there has been a fall in the incidence of certain diseases like T.B, leprosy and polio. But a rise in the incidence of certain diseases like AIDS, blindness, cancer etc. has also been noticed. These require immediate attention, care and action. There are certain weaknesses of Indian health care which need immediate attention. These relate to:

1. Inadequate availability of health care services: At the start of the Eleventh Plan, the number of doctors per lakh of population was only 45, whereas, the desirable number is 85 per lakh population. Similarly, the number of Nurses and Auxiliary Nurse and Midwives (ANMs) available was only 75 per lakh population whereas the desirable number is 255.
2. Quality of healthcare services : Many practitioners in the private sector are actually not qualified doctors and there is no proper check on them.
3. Affordability of health care is a serious problem for the vast majority of the population.
4. Unequal distribution of existing health institutions and manpower.
5. Lack of an appropriate referral system.

The 12th Plan emphasizes the need to have a Universal Health Coverage (UHC) for all in the country. All over the world, the provision of some form of universal health coverage is regarded as a basic component of social security. UHC broadly means ensuring equitable access to affordable and quality health services for all Indian citizens in any part of the country, regardless of income level, social status, gender, caste or religion. Details of the schemes are being worked out.

4.4 EDUCATION

Education plays an important role in the overall development of a human being and a society. It is the single most important instrument for social and economic transformation. Therefore, stress on imparting education has been given in our Constitution which says education should be free for children below 14 years of age. Under the various plans, education facilities have

been expanded at all levels in India and as a result, not only the literacy rate has risen but the percentage of children availing school education has also increased. *India, now, has the one of the largest education systems in the world. Eighty four per cent of rural habitation in India now have a primary school located within a distance of 1 kilometre.* The National Policy on Education (NPE) was made in 1986 and further modified in 1992. It emphasized on: universal access and enrolment; universal retention of children up to 14 years of age and a substantial improvement in the quality of education.

NPE had set a goal of expenditure on education at 6 per cent of the GDP. As against this target, the actual expenditure of central and state governments was just 3.3 per cent of GDP in 2013-14.

Right of Children to Free and Compulsory Education Act (RTE Act) 2009, has made free education for all children between the age of 6 and 14 years, a fundamental right.

As a result of the efforts undertaken, the country has made significant progress in improving access to education in recent years. The mean years of schooling of the working population (those over 15 years old) increased from 4.19 years in 2000 to 4.4 years in 2012. A good progress has also been made in bridging the equity gap in education. India's educational inequality, measured in terms of the Gini co-efficient for number of years of education, has decreased from 0.71 in 1983 to 0.49 in 2010, indicating a large reduction in inequality. Also, the gender gap in elementary education has declined. Gross Enrolment Ratio (GER), which shows the proportion of children in the 6-14 years age group actually enrolled in elementary schools, has increased progressively from 32.1 in 1950-51 to 104 in 2013. The main vehicle for providing elementary education to all children is the ongoing comprehensive programme called Sarva Shiksha Abhiyan (SSA) launched in 2001-02. It aimed at having all children in school by 2005 and universal retention by 2010. National Programme for Education of Girls at Elementary Level (NPEGEL) is an important component of SSA. This programme concentrates on education of girl child. Another important component of SSA is the Education Guarantee Scheme and Alternative and Innovative Education (EGS + AIE). This is specially designed to provide access to elementary education to children in school-less habitations and out of school children. Apart from the above, Mid-day meal scheme, Kasturba Gandhi Balika Vidyalaya (KGBV), Parambhik Shiksha Kosh (PSK) are other schemes for encouraging people for elementary education.

The achievements of SSA till 2013 -14 are opening of more than 3,50,000 new schools, construction of about 2,80,000 school buildings, construction of about 16,00,000 additional classrooms, supply of free text books to 8.3 crore children and training of around 53 lakh teachers.

According to UNESCO, India has more than 1 million out-of-School children. This has come down from 8 million in 2009.

Secondary education prepares students in the age group of 14-18 years for entry into higher education and employment. There has been an impressive growth in the area of higher education with an increase in *the number of secondary and higher education school from 7416 in 1950-51 to about more than 2lakh in 2010-11. The corresponding increase in total student enrollment has been from 1.5 million in 1950-51 to more than 45 million in 2010.*

In order to enhance access to secondary education and improve its quality, Rashtriya Madhyamik Shiksha Abhiyan (RMSA) was launched in 2009 with the objective of enhancing access to secondary education and improving its quality.



Apart from RMSA, there were other schemes undertaken during Eleventh Plan are setting up of model schools, National Scheme of Incentive to Girls for Secondary Education (NSIGSE) and Inclusive Education for the Disabled at the Secondary Stage (IEDSS).

The Twelfth Plan's objective for secondary education is to make quality education available, accessible and affordable to the target population in the age group of 14–18 years. For this, RMSA will be made a single comprehensive scheme to address issues of coverage and quality in secondary education.

University and higher education is also very important. It is also essential to build a workforce capable of underpinning a modern, competitive economy. However, it is available to a small percentage of population in the relevant age group. Moreover, it suffers from several weaknesses, such as increasing number of substandard institution, falling academic standards, outdated curriculum and lack of adequate support for research.

A new mission scheme called Rashtriya Uchchar Shiksha Abhiyan(RUSA) has been launched to strengthen and reform higher education.

At the time of Independence, there were only 20 universities, and 500 colleges with 0.1 million students; these have increased to 723 universities and 37,204 colleges as in 2012-13. There are several national institutions on technology known as Indian Institute of Technology. These provide courses in engineering and technology. Besides these, *there are many National Institute of Technology (NIT) consisting of erstwhile Regional Engineering colleges and other engineering colleges taken over by the Central Government* and a number of other centers for specialised courses such as architecture, mining and metallurgy, industrial engineering and forge and foundry. *These include Indian Institute of Science, Indian Institute of Science Education and Research (IISERs), National Institute of Industrial Engineering, Indian Institute of Foreign Trade (IIFT), National Institute of Foundry and Forge Technology, Indian School of Mines, School of Planning and Architecture and many more.* There are Indian Institutes of Management (IIMs) which are centers of excellence in management education. Apart from these, there are other private and government institutes which provide management education. *Not only this, there are quite a number of medical colleges imparting education in the area of medicines. All India Institute of Medical Sciences, Delhi University College of Medical Sciences, Post Graduate Institute of Medical Education & Research, Maharashtra University of Health Science, Sanjay Gandhi Postgraduate Institute of Medical Science are a few of them.*

Some of the major initiative taken during the XI Plan for promoting higher education are providing incentives to States for establishing new higher educational institutions, setting up of model colleges in identified backward regions in order to remove regional imbalances, setting up of new Indian Institutes of Information Technology, (IIITs), new NITs, IISERs, IITs, IIMs and School of Planning and Architect(SPA) and 1000 Polytechnics.

Other important initiatives include upgradation of state engineering institutions, expansion of research fellowships, provision of hostels for girls, reservation for SCs, STs OBCs, etc.

For adult education, the National Literacy Mission (NLM) was launched in 1998 as a Technology Mission. It aimed at imparting functional literacy to non-literates in the country in the age group of 15-35 in a time-bound manner. Its objective was to attain a sustainable threshold literacy rate of 75 per cent by 2007. The Total Literacy Campaign (TLC) has been the principal

strategy of NLM. NLM has accorded priority for the promotion of female literacy. NLM was recast into Saakshar Bharat(SB) in 2009. SB as a flagship scheme of adult education would be continued in Twelfth Plan as well.

The revamped Saakshar Bharat would be a continuing programme as a lifelong learning and literacy support system for the country. In the Eleventh Plan, although 74 per cent literacy rate has been achieved, the gender gap and regional disparities are still there. By 2017, SB shall strive to raise the literacy rate to 80 per cent and reduce the gender gap to less than 10 per cent. During the Twelfth Plan, Saakshar Bharat will give special focus on young adults and Out of School adolescents (15–19 years).

4.4.0 Problems of India's Education system

The education system in India suffers from the following problems:

1. Unplanned expansion of higher education deterioration of academic standards, low level of research etc.
2. Inadequate number of institutions which can impart education through correspondence or in the evening .
3. Low standard of education, deterioration of academic standards, outdated curriculum, low level of research, etc.
4. Large number of unemployed educated people.
5. Large-scale migration of educated people to the developed western countries.
6. Lack of infrastructure in many rural schools – absence of rooms, blackboard, teachers, water etc.
7. Neglect of primary education.
8. Regional disparities.
9. Large number of dropouts especially among females.

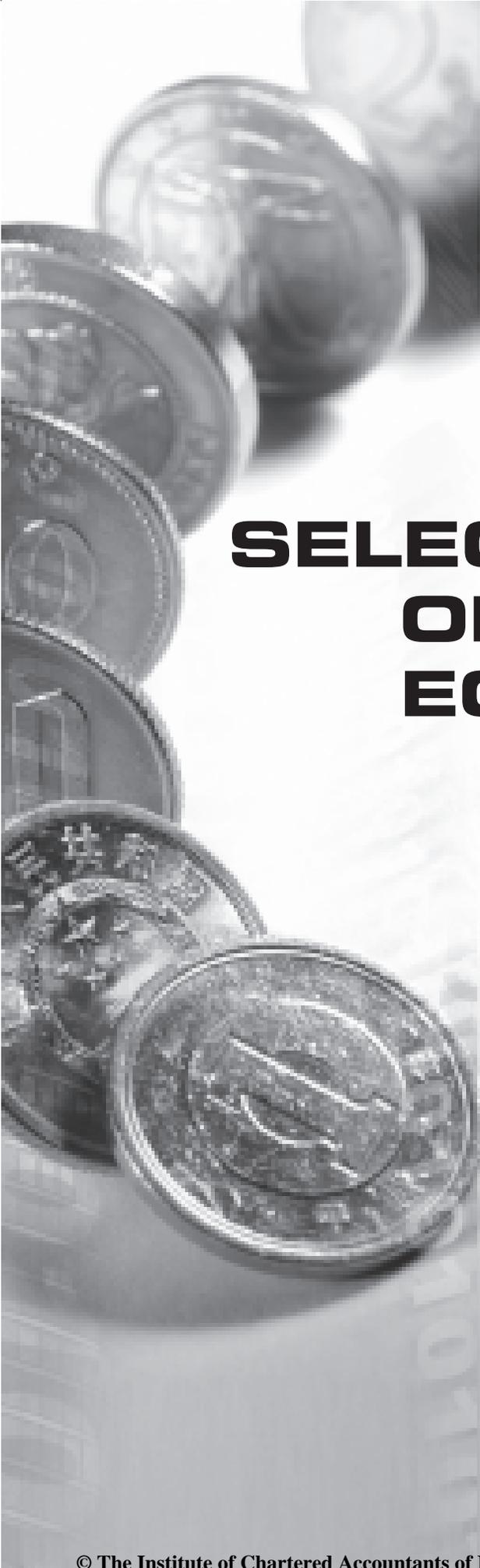
4.4.1 Suggestions for improving the education system

1. Restrictions should be introduced on higher education. Only those who satisfy certain conditions should be admitted to post graduate courses.
2. Education should be made job-oriented.
3. Expansion of education should be carefully planned since it is costly.
4. In rural areas emphasis should be on agriculture and vocational education.
5. Technical education should be properly planned.
6. Efforts should be made to stop brain drain i.e. highly educated people going abroad in search of jobs.
7. The standard of education should be raised.
8. The reasons for high rate of dropout especially among girls should be found and dealt with.



SUMMARY

- Infrastructure plays a vital role for the development of an economy. The five important infrastructural services are energy, transport, communication, education and health.
- Energy is a vital input for most of the productive activities.
- In India, still half of the population uses non-commercial sources of energy like fuel wood, animal dung etc.
- Energy is of two type : Primary energy (e.g. Coal) and Final energy (e.g. electricity)
- The main sources of commercial energy are coal, petroleum, water, sun and wind.
- The difficulties and problems related to energy are demand and supply gap, operational inefficiencies, mounting oil price, T&D losses etc.
- In order to remove the above said problems various measures were taken like increasing capacity of plants, carrying out reforms for reducing T&D losses, using new sources of power etc.
- Transport provides a useful link between production centers, distribution areas and ultimate consumers.
- Important means of transport are railways, roads, water, transport and air transport. Considering the size of India, these facilities are inadequate and need enhancement and improvement.
- Communication means transmission of information. The important means of communication are the postal services, telephone services, tele printers, radio and telephone.
- The modern telecommunication system has revolutionized the world and has replace old means of communication
- In case of health sector, there is lack of proper balanced and nutritious diet and medical care.
- Various developments have taken place in the health sector. But due to over population these are inadequate both qualitatively and quantitatively. In general, health of Indian people is not satisfactory.
- Education plays an important part in the overall development of an individual and a society
- The National Policy on Education (NPE) in 1986 (further modified in 1992) emphasizes 3 aspects
 - Universal access and enrolment
 - Universal retention of children up to 14 years
 - Improvement in quality of education
- The education system suffers from high percentage of dropouts, inadequate number of educational institutions, lack of infrastructure in rural areas, outdated co-curriculum etc.



CHAPTER – 6

SELECT ASPECTS OF INDIAN ECONOMY

Unit 5

Inflation



Learning Objectives

At the end of this unit, you will be able to:

- ◆ understand the meaning of inflation.
- ◆ know various types of inflation.
- ◆ understand how prices have moved in India.
- ◆ know the general causes behind inflation in India.
- ◆ know the measures taken by the government to control inflation in India.

5.0 MEANING AND TYPES OF INFLATION

Inflation refers to a persistent upward movement in the general price level. It results in a decline of the purchasing power. According to most economists inflation does not occur until price increase averages less than 5% per year for a sustained period. Inflation can broadly be of the following types:

- (i) **Demand-pull inflation** : In a market there is interaction between the flow of money and flow of goods and services. When more money chases relatively less quantity of goods and services the excess of demand relative to supply pushes up the prices of goods and services. Such inflation, as a result of increased money expenditure, is called demand-pull inflation. In other words, when demand for goods and services is more than their supply, their prices rise. Such price rise is called demand pull inflation.
- (ii) **Cost-push inflation** : Cost push inflation refers to a situation where prices persistently rise because of growing factor costs. Cost push inflation results when factors of production especially wage earners try to increase their share of the total product by raising their prices. A rise in factor prices leads to a rise in the total cost of production and consequently a rise in the price level. This may result in an inflationary spiral. Inflation once set in motion due to phenomenon of cost push in one industry or sector spreads throughout the economy. For example, due to rise in wages in the steel industry, prices of steel may rise and this will raise the prices of vehicles, machines, etc., using steel as input. The rise in prices of vehicles may in turn raise the cost of transport and manufactured goods. The cost of agriculture may also rise due to high prices of tractors. Ultimately, food and raw material prices will also go up leading to higher cost of living. Higher cost of living will further push wage rates. Cost push inflation is much more difficult to control than demand pull inflation. This is because cost push inflation is not susceptible to direct control. Often the demand pull inflation precedes the cost push inflation. When the former sets in, there is an increasing demand for factors of production; the prices of these also rise, leading to rise in general prices.
- (iii) **Stagflation** : The combined phenomenon of demand-pull and cost-push inflation is found in many countries, both the developed and the developing. One of these situations is in the form of stagflation under which economic stagnation, in the form of a low rate of growth, combines with the rise in general price level. In the developing countries, this happens when aggregate demand increases at a fast rate due to high public expenditure and expansion of credit money, aggregate cost increases due to higher wages resulting

from pressure from labour organisations thus combining cost-push effect with the demand pull inflation.

Such inflationary situations when unchecked by appropriate monetary and fiscal measures, may lead to galloping or hyper-inflation leading to price increase of even 40% to 100% every year.

Stagflation in India has been interpreted to mean that the economy is growing slowly or stagnating (i.e. GNP is either increasing slowly or remaining constant or even declining) and at the same time experiencing a high rate of inflation. In India during 1991, partly as a result of large budget deficits resulting in rapid expansion in money supply and partly due to supply shocks delivered by Gulf war in 1990-91 and sharp increase in the procurement prices of foodgrains the high rate of inflation emerged in the economy. Along with high inflation rate, rate of industrial and economic growth, was very low. Thus, during the period 1991-94 high inflation occurred in India while the economy was stagnating. Therefore, it is correct to say that India was experiencing stagflation during the period.

Deflation: Deflation is a state in which the prices are falling and thus the purchasing power of money is increasing. Deflation is just the opposite of inflation.

5.1 PRICE TRENDS IN INDIA

In India, the variation in prices are measured in terms of Wholesale Price Index (WPI) . They can also be measured in terms of Consumer Price Index (CPI).

Wholesale Price Index (WPI) : The Wholesale Price Index (WPI) is the price of a representative basket of wholesale goods. The WPI focuses on the price of goods in the wholesale market. The Indian WPI which was earlier updated weekly is now updated on a monthly basis. This basket comprises 676 items which carry different weights. WPI measures headline inflation i.e. it includes the entire set of commodities. This is different from core inflation in which the commodities which have volatile prices (like food and fuel) are not considered. WPI, however, does not include services and non-tradable commodities. Currently, in India WPI series with base 2004-05 is being used to assess price changes.

Consumer Price Index (CPI) : A consumer price index (CPI) measures changes in the price level of consumer goods and services purchased by households. It reflects the cost of living for a homogeneous group of consumers. There are 4 CPI indices in India. These are CPI for industrial workers, CPI for agricultural labour, CPI for rural labour and CPI for urban non-manual employees.

Since CPI measures changes in the price level of goods purchased by the ultimate consumers, it shows the real inflationary pressure on consumers and is, thus a more realistic measure than WPI. However, in India the main focus is on WPI. Moreover, there is no single CPI but four CPIs as stated above.

During the fifties, the average decadal rate of inflation was very low at 1.7 per cent.

During the sixties, the average decadal inflation edged up to 6.4 per cent. The inflationary pressures started mounting from 1962-63, on account of the Chinese war in 1962 and unsatisfactory supply position. The Pakistan war in 1965 and the famine conditions during 1965-67 aggravated the situation further. The maximum inflation of about 14 per cent was recorded for the year 1966-67.



The average inflation rate during the seventies was still higher at 9 per cent. The decade was the most tumultuous as far as the price situation was concerned as undue hike in oil prices in this decade, once in 1972-73 and again in 1979-80 led to overall rise in prices.

During the eighties, the decadal average inflation moved down somewhat to 8.0 per cent. During the first half of nineties average inflation rate was around 10 per cent. The years 1990 and 1991 witnessed a very high inflation rate of more than 12 per cent. The accelerated rise in price reaching double digit during 1990-91 was mainly due to Gulf crisis tight position of balance of payments and supply demand imbalances of some essential items. The next three years saw lowering of inflation rate (to around 10 per cent).

The growth in prices both at the wholesale level and retail level was particularly low during the second half of 90's decade. (around 5 per cent per annum.) This was mainly due to stable prices of manufactured goods and good monsoons. A new WPI series with 2004-05 base was released in 2010. The new series has more items and is more representative of the prices prevailing in the wholesale market. According to the new series, the ten year average of headline WPI inflation was around 5.3 per cent from 2000-2010. Erratic and delayed monsoon hardening of international prices of crude oil, minerals and related products *shortfall in domestic production vis-a-vis domestic demand, hardening of international prices of primary products like wheat, pulses, edible oils, fruits, vegetables and spices led to higher inflation during 2000-10.*

Prices remained stubbornly high during 2010-11 (at 9.6 per cent) and 2011-12 at (9.1 per cent). Some of the contributory factors for high inflation during these two years have been (i) high food inflation i.e. higher prices of primary articles like vegetables, eggs, meat, fish, etc. due to changing dietary pattern of consumers; (ii) increasing commodity prices in global market resulting in higher prices of manufactured goods and (iii) persistently high international crude petroleum prices.

There has been a significant variation in inflation rate in terms of WPI and the Consumer Price Indices (CPIs). For example, for the year 2013-14, whereas the average WPI was 5.98 per cent, the average CPI for Industrial Workers was 9.68 per cent. This was mainly due to food inflation, which forms a significant proportion of CPI as compared to WPI and which was high during 2013-14.

The Central Statistics Office (CSO) has come out with a new series on CPI with base 2010 = 100. This series intends to reflect the actual movement of prices at the micro-level. According to new series, Consumer Price Index remained sticky at around 9-10 percent owing to higher inflation during last couple of years . (2013-2014)

Average headline inflation moderated to four year low of around 6 percent in 2013-14 after averaging 8.6 percent in the previous three years. Apart from monetary measures taken by the RBI, softening of international and domestic prices of metals, chemicals and textiles contributed to the moderation of inflation. Elevated food inflation especially of cereals and fuel inflation however, remain areas of concern. Apart from monetary measures to control demand, supply side responses will be necessary to bring down inflation in a sustained way.

5.2 CAUSES OF INFLATION IN INDIA

A general price rise can take place either as a result of rise in aggregate demand or a failure of aggregate supply or both. Increase in public expenditure, deficit financing, and rapid growth of

population can be mentioned as demand factors and erratic agricultural growth, agriculture price policy, inadequate rise in industrial production and upward revision of administered prices etc. can be mentioned as supply factors which have led to inflationary price rise in India.

- (i) ***Increase in public expenditure*** : Public expenditure has risen from 18.6 per cent of GDP in 1961 to around 28 per cent in 2012-13 (current prices). With a rise in national income and also rapid growth of population an increase in public expenditure is unavoidable. But the spectacular rise in the public expenditure is not justifiable. Approximately 40 per cent of the government expenditure in India is on non-developmental activities. No doubt, defence and maintenance of law and order are essential for the stability of the society. At the same time, it must not be forgotten that due to their unproductive nature, expenditure on these activities results in inflationary price rise. The government expenditure on non-developmental activities, by putting purchasing power into the hand of its employees, creates demand for goods and services, but it does nothing whereby their supply could increase. Under these circumstances the general price level shows an inevitable tendency to rise.
- (ii) ***Deficit financing*** : Deficit financing means financing of budget deficits (shortages) by borrowing from the banks or printing of more currency. The Government of India has frequently resorted to deficit financing in order to meet its developmental expenditure. A small dose of deficit financing is helpful in tiding over the gap between public revenue and public expenditure and making available funds for the growth of the economy but a large dose and that too in a period of relatively slow growth turns out to be inflationary. This happens because by financing the deficit the government puts purchasing power in the hands of people but it does nothing for creating real resources for the economy at least in near future. In India from plan to plan, the recourse to deficit financing has been increasing which has led to inflationary trends in the country.
- (iii) ***Erratic agricultural growth*** : The Indian agriculture largely depends on monsoons and thus crop failures due to drought have been regular feature of agriculture in this country. In the years of scarcity of foodgrains not only price of food articles increases but the general price level also rises.
- (iv) ***Agricultural price policy of the Government*** : The government has been pursuing a policy of price support to the agriculturists. For this, it announces the price at which it would be buying agricultural products. This ensures certain minimum price to the farmers. This policy benefited farmers in India but this has been a major contributory factor to the inflationary price rise in the country.
- (v) ***Inadequate rise in industrial production*** : Performance of the industrial sector, particularly in the period 1965 to 1985, has been rather disappointing. Over the 20 years period, industrial production increased at a modest rate of 4.7% per annum. The performance of essential consumer goods sector which includes industries like oil, food manufacturing, textiles, weaving, apparel and footwear was particularly disappointing. Moreover, in the ten years period from 1991-92 (except for 1995-96), the industrial sector registered slow growth of around 6 per cent per annum. Of late, the performance of the Industrial Sector has been particularly bad in 2012-14 (averaging at less than 1 per cent per annum). In the wake of a large expansion of the money supply creating big demand for these goods, inadequate increase in their production pushed up their prices.



- (vi) **Upward revision of administered prices** : There are a number of important commodities for which price level is administered by the government. Many of these commodities are produced in the public sector. The government keeps on raising prices from time to time in order to cover the losses in the public sector which often arise due to inefficiency and unimaginative planning. This policy results in cost push inflation.
- (vii) **Other factors** : Besides the above factors, the following have also contributed to inflationary trends in price in India: Failure of the government to fully bring within the ambit of taxation the increasing income of the people, large scale tax evasion and avoidance, increasing reliance on indirect taxes, black marketing and hoarding of essential commodities, unused capacity in industries, high capital-output ratio, shortage of essential raw materials, low surplus from public sector undertakings, infrastructural bottleneck and rising prices of imports.

5.3 MEASURES TO CHECK INFLATION

Since inflation is a phenomenon where money income is rising faster than the real goods and services, the measures to check inflation should either be of a check on the increase in money incomes or making available more of real goods and services. The various measures can be studied under three main heads – monetary and fiscal measures, control over investment and other measures. In India also, in order to check inflation, various monetary, fiscal and administrative measures are taken in the years of high inflation (e.g. 2006-07, 2008-09). These have helped in containing inflation to some extent. These measures are discussed below:

- (i) **Monetary measures** : Monetary measures are applied to check the supply of currency and credit. These measures consist of quantitative measures (open market operations, statutory reserve requirements and Bank Rate) and qualitative measures (margin requirements, moral suasion etc.). When the Reserve Bank of India wants to control inflation it uses any one or more of the above measures. Thus, it may sell government securities in the open market. By issuing (i.e. by selling) government securities, the government takes away liquidity (i.e. cash etc.) from the people. This lowers the balances with the banks; which in turn will reduce their capacity to create credit or lend money for investment purposes. This will reduce liquidity in the economy and bring the prices under control. Similarly, by raising Bank Rate or statutory reserve rates the RBI controls liquidity and credit and ultimately prices. The extent to which these will be effective will depend on the intensity of the investment demand. The raising of the statutory reserve ratio is very widely used measure in India but the effect of this measure also depends on the banking habits of the people. However in those countries where banking is not fully spread and all money is not quickly banked, the effect will be much smaller.

There are several selective measures of credit, such as variable interest rates, variable margin requirement, ceiling on certain types of loans, minimum and maximum rates of interest etc. There is need for selective control of credit when the rise in prices is confined to some commodities only e.g. necessities of life.

- (ii) **Fiscal measures** : These are the measures taken by the government with regard to taxation, expenditure and public borrowings. Taxes determine the size of the disposable income in the hands of the public. In the case of inflation, a proper tax policy will be to avoid tax cuts, or to introduce some increase in the existing rates so as to reduce the purchasing power in the hands of the people and thus reduce the pressure of demand on prices. The

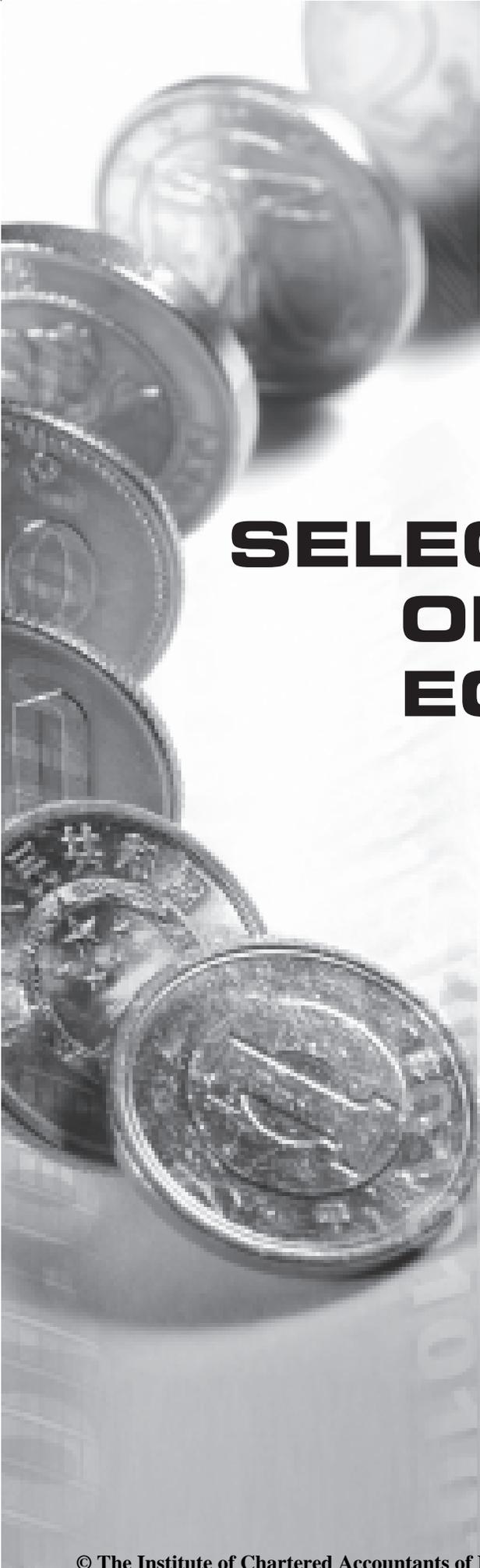
SELECT ASPECTS OF INDIAN ECONOMY

fiscal tools have been extensively used as tools to control inflation in India. The progressive income tax system, control over public expenditure, introduction of new types of taxes, improving profits of public sector units, etc. are all meant to control inflation in the country.

- (iii) **Control over investment** : Controlling investments is also considered necessary because, due to the multiplier effect, the initial investment leads to large increase in income and expenditure and the demand for both the consumer and capital goods goes up speedily. Therefore, it is necessary that the resources of the community should be employed for investment which does not have the effect of increasing inflation.
- (iv) **Other measures** : These measures can be divided broadly into short term and long term measures. Short term measures can be in regard to public distribution of scarce essential commodities through fair price shops. There may also be control over movement of commodities from one state to another. In India whenever shortage of basic goods has been felt, the government has resorted to imports so that inflation may not get triggered. It has also resorted to rationing of essential goods in times of shortages. The long term measures will require accelerating economic growth especially of the wage goods which have a direct bearing on the general price and the cost of living. Some restrictions on present consumption may help in improving saving and investment which may be necessary for accelerating the rate of economic growth in the long run.

SUMMARY

- Inflation or persistent upward movement of prices results in a decline in the purchasing power of money.
- Most of the economists point out that inflation does not occur until price increase averages less than 5% per year for a sustained period
- Inflation is classified into demand-pull, cost-push, stagflation and deflation
- Demand pull inflation refers to the phenomenon when prices consistently rise because demand is more than supply of goods and services. It is a situation of too much money chasing too few goods.
- Cost push inflation refers to a situation where price persistently rise because of growing factor costs.
- The combined phenomenon of demand-pull and cost-push inflation is called stagflation
- Deflation is a state in which the prices are falling and thus the purchasing power of money is increasing. Deflation is just the opposite of inflation.
- In India, the general causes of inflation have been population explosion, poor performance of agriculture and industrial sectors, high government expenditure etc.
- Inflation can be checked with the use of monetary measures (quantitative and qualitative measures), fiscal measures (tax, expenditure and debt) and investment control.



CHAPTER – 6

SELECT ASPECTS OF INDIAN ECONOMY

Unit 6

Budget and Fiscal Deficits in India

Learning Objectives

At the end of this unit, you will be able to:

- ◆ understand the meaning of budget deficit and fiscal deficit.
- ◆ know how budget and fiscal deficits have progressed over the years.

6.0 MEANING OF BUDGET AND FISCAL DEFICITS

The Government of India, every year prepares budget which shows the expected receipts and expenditures of the government in the coming financial year. Receipts of the government come from taxes (both direct and indirect), profits from various financial institutions, government commercial undertakings, interest from loans given to other governments, local bodies, etc. and expenditure of the government are on developmental projects such as construction of roads, railways, production of energy and non-developmental expenditure on a large number of activities such as defence, subsidies, police, law and order, etc. If receipts are equal to expenditure, the budget is said to be balanced one. If receipts are higher than the expenditure, the budget is said to be surplus one and if receipts are lower than the expenditure, the budget is said to be deficit one.

Budget deficit is thus the difference between total receipts and total expenditure (revenue plus capital). If borrowings and other liabilities are added to the budget deficit, we get fiscal deficit. Fiscal deficit, thus measures that part of government expenditure which is financed by borrowings. Consider the following example to understand both the concepts:

Calculation of Budget Deficit and Fiscal Deficit

	1990-91 ₹ (crore)	2009-10 ₹ (crore)
1. Revenue Receipts	54,950	5,72,811
2. Capital Receipts of which	39,010	4,51,676
(a) Loan recoveries + other receipts	5,710	33,194
(b) Borrowings & other liabilities	33,300	4,18,482
3. Total Receipts (1+2)	93,960	10,24,487
4. Revenue expenditure	73,510	9,11,809
5. Capital expenditure	31,800	1,12,678
6. Total expenditure (4+5)	1,05,310	10,24,487
7. Budgetary Deficit (3-6)	11,350	Nil
8. Fiscal deficit [1 + 2(a) - 6 = 7 + 2(b)]	44,650	4,18,482



Budget deficit is Total receipt – Total expenditure

So here,

For 1990-91, ₹ 93,960 crore – ₹ 1,05,310 crore = ₹ 11,350 crore

For 2009-10, ₹ 10,24,487 crore – ₹ 10,24,487 crore = Nil

Fiscal deficit is

- (a) the difference between total expenditure and total revenue receipts and capital receipts but excluding borrowings and other liabilities. *or*
- (b) it is the sum of budget deficit plus borrowings and other liabilities.

So here, for 1990-91, Fiscal deficit is

1st Method:

Total expenditure = ₹ 1,05,310 crore

(-) Total revenue receipts (no.1) = ₹ 54,950 crore

(-) Capital receipts [no.2(a)] = ₹ 5,710 crore

Or ₹ 1,05,310 crore – ₹ 60,660 crore

Or ₹ 44,650 crore

2nd Method:

Budget deficit (item 7) + borrowings and other liabilities (item 2(b))

= ₹ (11,350 + 33,300) crore

= ₹ 44,650 crore

For 2009-10, Fiscal deficit is

1st Method = ₹ 10,24,487 crore – ₹ [5,72,811 + 33,194] crore

= ₹ 4,18,482 crore.

2nd Method = Nil + ₹ 4,18,482 crore

= ₹ 4,18,482 crore

6.1 TRENDS IN INDIA'S BUDGET AND FISCAL DEFICITS

Budgetary deficit which shows the difference between total revenue and total expenditure does not give a true picture of the financial health of the economy. It treats government borrowing from the market or raising the funds from the public such as national savings schemes, post office saving deposits, provident fund collections etc. as receipts. Originally, budget deficit was calculated to show RBI lending to the government. In 1997, the practice of RBI lending to government through ad hoc Treasury Bills was given up. Thus the concept lost its relevance and now it is no longer shown in the budgetary statement. The government now taps 91 days treasury bills from the market and shows it as part of the capital receipts under the heading "borrowings and other liabilities".

Fiscal deficit is a more comprehensive measure of the imbalances. It focuses on/measures the total resource gap and as such fully reflects the impact of the fiscal operations of the indebtedness of government. It is the measure of excess expenditure over the government's own income.

Fiscal deficit in India have grown rapidly. In the fifteen year period of 1975-90, the fiscal deficit of the Central Government rose alarmingly from 4.1 per cent of GDP to 7.9 per cent of GDP. The then present fiscal malaise had been caused by unchecked growth of non planned revenue expenditure. Non plan revenue expenditure particularly on defense, interest payments and food and fertiliser subsidies rose sharply during 1980s. In 1991, major steps were taken to correct the fiscal imbalances. Many expenditures were cut and controlled (e.g. subsidies). Fiscal deficit was reduced to 4.1 per cent in 1996-97. Since 1997-98, fiscal deficit had again started increasing. To restore fiscal discipline, the Fiscal Responsibility and Budget Management (FRBM) Bill was introduced in 2000 and FRBM Act was passed in 2003. The Act aims at reducing gross fiscal deficit by 0.5 per cent of the GDP in each financial year (beginning on April 1, 2000). As a result of the efforts taken, the fiscal deficit as a proportion of GDP started declining. It came down to 2.5 per cent in 2007-08.

World wide financial crisis affected Indian economy also. The extraordinary situation that emerged due to crisis had led to a sharp shrinkage in the demand for exports. Domestic demand also shrank leading to a downturn in industry and services sectors. The situation demanded a fiscal response. The measures taken included increase in the plan expenditure, reduction in indirect taxes, sector specific measures for textiles, housing, infrastructure, automobiles, micro and small sectors and exports etc. These, together with debt relief package for farmers and outlay due to Sixth Pay Commission recommendations led to an upsurge in the fiscal deficit to 6.0 per cent of GDP in 2008-09 and 6.5 per cent in 2009-10 compared with 2.5% for 2007-08.

Fiscal deficit fell down to 4.8 per cent of GDP in 2010-11 as a result of fiscal measures undertaken consisting of partial roll back of the stimulus given during the last two years. The Budget 2011-12 estimated a further reduction in fiscal deficit to 4.6 of GDP. It came down to 2.5 percent in 2007-08. However, persistence of inflationary pressures impairing profit margins and growth of tax revenues from corporate sector, low level of non-tax revenues, failure to achieve the targeted disinvestment proceeds, etc. are some of the factors which led to high fiscal deficit to the tune of 5.7 percent of GDP during 2011-12.

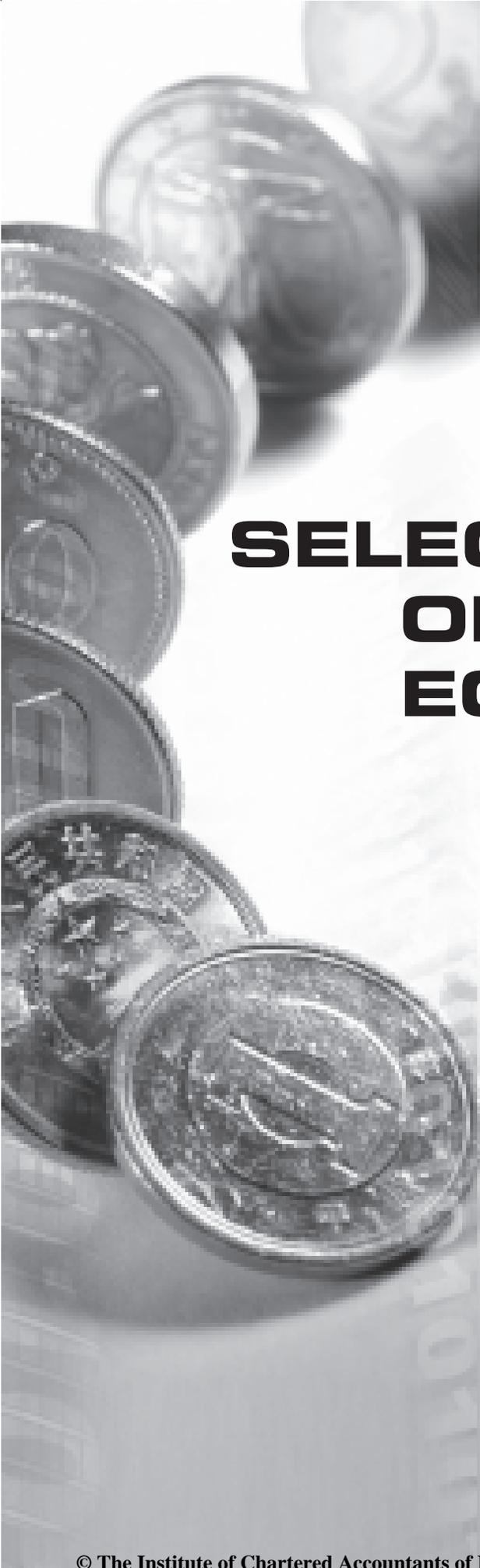
During 2012-13, as a result of measures taken to rationalize expenditure, the fiscal deficit as a percentage of GDP fell down to 4.9. In the year 2013-14, the aim of the fiscal policy was to revive growth of the economy and thus augment investment and also rationalize expenditure so as to achieve fiscal deficit level targeted for 2013-14. The provisional figures suggest that fiscal deficit became 4.5 percent of GDP in 2013-14.

SUMMARY

- Every year the Government of India prepares budget which shows the expected receipts and expenditure of the government in the coming financial year.
- If receipt are equal to the expenditure the budget is balanced.
- If receipt are higher than the expenditure the budget is said to be surplus.
- If receipts are lower than the expenditure, the budget is said to be deficit one.



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- Budget deficit is thus the difference between total receipts and total expenditure.
 - Fiscal deficit is the sum of budget deficit plus borrowings and other liabilities.
 - Budget deficit does not show the true picture of government liabilities.
 - Budgets now show fiscal deficits to show the overall shortfalls in the public revenue.
 - Over the years, fiscal deficits have grown rapidly and have become the cause and concern. In the year 2007-08 the fiscal deficit as percentage of GDP was 2.5 per cent which increased to 6.5 percent in 2009-10 and 5.7 per cent in 2011-12. However, as result of fiscal measures taken it has come down to 4.5 percent of GDP in 2013-14.
 - FRBM Act was passed to reduce the gross fiscal deficit by 0.5% of the GDP each financial year.



CHAPTER – 6

SELECT ASPECTS OF INDIAN ECONOMY

Unit 7

Balance
of
Payments



Learning Objectives

At the end of this unit, you will be able to:

- ◆ understand the meaning of Balance of Payments.
- ◆ know the difference between Balance of Payments and Balance of Trade.
- ◆ know of the developments in Balance of Payments situation in India since Independence.

7.0 MEANING OF BALANCE OF PAYMENTS AND BALANCE OF TRADE

The Balance of Payments (BOP) is one of the oldest and most important statistical statements for any country. It is a systematic record of all economic transactions between the residents of one country and the residents of the rest of the world in a year. Since we merely record all receipts and payments in international transactions using double entry system, the balance of payments always balance in an accounting sense.

Balance of Trade : Balance of Trade may be defined as the difference between the value of goods sold to foreigners by the residents and firms of the home country and the value of goods purchased by them from foreigners. If value of exports of goods is equal to the value of imports of goods, we say that there is balance of trade equilibrium and if the latter exceeds the former, then we say that there is balance of trade deficit. But if the former exceeds the latter, i.e., if value of exports of goods is more than the value of imports of goods, we say there is surplus balance of trade.

Balance of Current Account : Balance of current account is a broader concept than the balance of trade. It includes balance of services and balance of unilateral transfers (i.e., unrequited transfers) besides including balance of trade. Balance of services records all the services exported and imported by a country in a year. Unlike goods which are visible and tangible, services are invisible and are not tangible. The services transactions basically include: (i) transportation, banking and insurance receipts and payments from and to the foreign countries, (ii) tourism, travel services and tourist purchases of goods and services received from foreign visitors to home country and paid out in foreign countries by home country citizens, (iii) expense of diplomatic and military personnel from overseas as well as receipts from similar personnel from overseas who are stationed in the home country, and (iv) interest, profits, dividends and royalties received and paid from and to the foreigners. Balance of services is the sum of all invisible service receipts and payments which could be zero, positive or negative. Balance of unrequited transfers includes all gifts, donations, grants and reparation, receipts and payments to foreign countries. All these balances, i.e., balance of trade, balance of services and balance of unrequited transfers constitute balance of current account. It could again be positive, negative or zero depending upon the values of these balances. It is worth noting that balance of payments on current account covers all receipts on account of earnings (as opposed to borrowings) and all the payments arising out of spending (as opposed to lending). Thus, while all earnings and expenditure by way of exports and imports of goods and services and transfers like remittances, donations etc. form a part of the current account, foreign investments (direct and portfolio), commercial borrowings, external assistance, NRI deposits etc. form a part of the capital account.

Balance of Payment on capital account : Balance of payments on capital account includes balances of private direct investments, private portfolio investments and government loans to foreign governments. Balance of capital account basically deals with debts and claims of the country in question or we say it deals with borrowings or lending of the country in question.

Balance of Payments : Overall balance of payments is the sum of balance of current account and balance of capital account. It includes all international monetary transactions of the reporting country vis-à-vis the rest of the world. The balance of payments must always balance in a book-keeping sense. This is because for any surplus (or deficit) in the overall balance of payments there must be a corresponding debit (or credit) entry in the net changes in external reserves. In other words, if there is a surplus it adds to external reserves of the country and if there is a deficit, it reduces down the external reserves of the country.

7.1 TRENDS IN BALANCE OF PAYMENTS OF INDIA

A country, like India, which is on the path of development generally, experiences a deficit in balance of payments situation. This is because such a country requires imported machines, technology and capital equipments in order to successfully launch and carry out the programme of industrialisation. Also, since initially it has only primary goods to offer as exports, it generally has an unfavourable balance of payments position. As pace of development picks up it has to have 'maintenance imports' although it has now more sophisticated goods to offer for exports. But the situation remains the same i.e., deficit balance of payments.

This has exactly happened in India. Over the period of planning India's balance of payments has generally remained unfavourable. However, deficit in balance of payments sharply increased after the Fifth Plan. During the whole of the Fifth Plan India experienced surplus in the balance of payments due to a sharp increase in the export surplus on account of invisible remittances. (money sent by a foreign worker to his home country) From 1979-80 onwards, India started experiencing very adverse balance of payments. This happened because growing trade deficits, which till then were offset by net receipts could not be made good by them.

The Sixth Plan characterised the balance of payments position as 'acute'. The balance of payments continued to be under strain during the Seventh Plan. In early 1990-91, the already poor BOP position worsened because of Gulf war and further deterioration in invisible remittances. An immediate response to the BOP crisis was introduction of several restrictions on import in 1990-91. In 1992-93, many important changes such as a new system of exchange rate management, liberalisation of import licensing and tariff reductions were introduced.

India saw a remarkable turnaround from a foreign exchange constrained control regime to a more open, market driven and liberalised economy. The trade liberalisation and a shift to a market-determined exchange rate regime have had a significant positive impact on the country's balance of payments.

There has been a significant improvement in the structure of India's balance of payments since the economic crisis of 1991. Comparing the pre-crisis with the post-crisis data we find that exports grew at an annual average of 7.6 per cent during 1980 to 1992 and at an annual average of 10 per cent 1992-93 to 2000-2001. Similarly, imports grew at 13.7 per cent per annum during 1992-93 to 2000-2001 compared with just 8.5 per cent growth rate during 1980-1992.



In the Tenth plan total exports grew at about 24 per cent per annum largely due to impressive growth of petroleum products and manufactured goods of agricultural and allied products and imports recorded a compound annual growth rate of around 30 per cent mainly due to increase in oil prices.

We had a current account surplus for three successive years (2001-04). Buoyant invisible flows, particularly private transfers comprising remittances, along with software services exports, have been instrumental in creating and sustaining current account surpluses for India for *the above period*. However, since 2003-04 trade deficit has widened sharply, particularly in 2004-06, because of higher outgo on import of petroleum, oil and lubricants. As a result, current account surpluses have once again turned into deficits in spite of the fact that invisibles flows have continued to swell.

In the Eleventh Plan exports were projected to grow at about 20 per cent per year in US dollar terms, the imports were projected to grow at 23 per cent, current account deficit could range between 1.2 per cent to 2 per cent.

The year 2008-09 was marked by adverse development in the external sector of the economy, particularly during the second half of the year, reflecting the impact of global financial crisis.

The 2008 global financial crisis and subsequent slowdown in the world economy has clearly demonstrated that tremors originating in one corner of the world can quickly reach other parts, among others via the trade channel. Mirroring the global trend, India's exports (merchandise and services) which also had robust growth of 30.1 per cent in the five pre-crisis years (2003-2007) decelerated to 16.0 per cent in the five post-crisis years (2009-2013). There was a mild revival in export growth to 4.1 per cent (in US dollars term) in 2013-14 after the decline to -1.8 per cent in 2012-13. As far as the imports are concerned, their growth decelerated sharply from 32.3 per cent in 2011-12 to 0.3 per cent in 2012-13 and fell to a negative -8.3 per cent in 2013-14. This happened mainly because of fall in non-oil imports and gold imports (resulting from several measures taken to control them). As a proportion of GDP, trade deficit was 7.9 per cent of GDP in 2013-14 as against 10.5 per cent in 2012-13. India's current account deficit (CAD) has been more than 2 per cent of GDP during the Eleventh Plan. In 2012-13, also CAD grew sharply to 4.7 per cent. However, in 2013-14, it fell down sharply to 1.7 per cent owing partly to the measures taken by the government to rectify BOP condition

India's foreign exchange reserves comprise foreign exchange assets (FCA), gold, special drawing rights (SDRs) and reserve tranche position (RTP) in the International Monetary Fund (IMF). When there is volatility in exchange rate, the Reserve Bank of India (RBI) intervenes to smoothen it. This results in increase or decrease in the level of foreign exchange reserves depending upon the type of intervention. Exchange Market Intervention' by RBI means the sale or purchase of currencies by the RBI with the aim of changing the exchange rate of rupee vis-a-vis on or more currencies. If there is too much demand for foreign currency (say dollar), it will appreciate too much and Indian rupee will depreciate. At this point, the RBI intervenes by releasing the dollars (from its reserves) in the market to stabilize the exchange rate. Similarly, if there is too less demand for foreign currency (say dollar), it will depreciate and the rupee will appreciate too much. At this point, the central bank will intervene by purchasing dollars from the market to stabilize exchange rate.

Special Drawing Rights: The Special Drawing Rights (SDRs) were created in 1969 by the IMF, to supplement a shortfall of preferred foreign exchange reserve assets, namely gold and the US

dollar. SDR is neither a currency, nor a claim on the IMF. Rather, it is a potential claim on the freely usable currencies of IMF members. Holders of SDRs can obtain these currencies in exchange for their SDRs in two ways: first, through the arrangement of voluntary exchanges between members; and second, by the IMF designating members with strong external positions to purchase SDRs from members with weak external positions. In addition to its role as a supplementary reserve asset, the SDR serves as the unit of account of the IMF and some other international organizations. The SDR today is redefined as a basket of currencies, consisting of the euro, Japanese yen, pound sterling, and U.S. dollar. The basket composition is reviewed every five years. Special drawing rights are allocated to member countries by the IMF. A country's IMF quota, the maximum amount of financial resources that it is obligated to contribute to the fund, determines its allotment of SDRs.

The primary means of financing the International Monetary Fund is through members' quotas. Each member of the IMF is assigned a quota, part of which is payable in SDRs or specified usable currencies and part in the member's own currency. The difference between a member's quota and the IMF's holdings of its currency is a country's *Reserve Tranche Position (RTP)*. RTP is accounted among a country's foreign-exchange reserves.

Beginning from a low level of US \$ 5.8 billion at the end March, 1991, India's foreign exchange reserves gradually increased to about 315 billion in May 2008. However, they declined to US \$ 252 billion at the end of March, 2009. The decline was a fall out of the global crisis showing a growth of more than 40 per cent. The level of foreign exchange reserves increased to US \$ 305 billion at the end March 2011. However, they declined to U.S. \$ 292 billion at end March 2013 but increased to 304 billion in march, 2014.

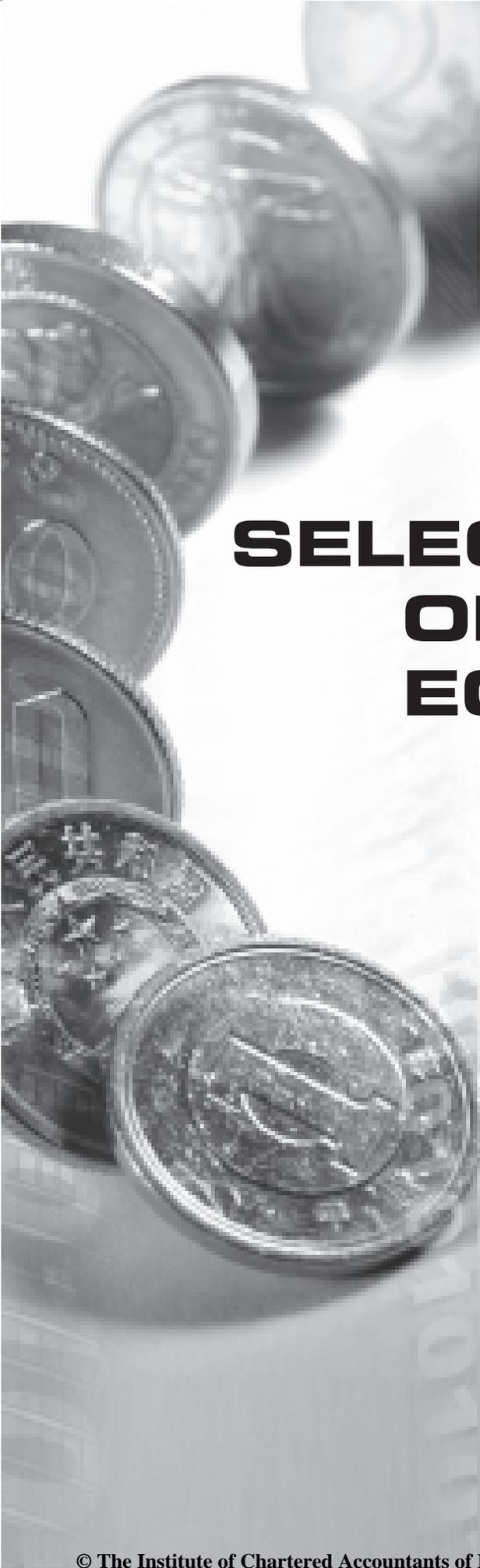
Region-wise, India's trade has diversified. Earlier, Europe and USA used to be main partners of India's international trade. Now, Asia and ASEAN (Association of South East Asian Nations) have become India's major trade partners. This has helped India weather the global crisis emanating from Europe and America. Asia and ASEAN countries now account for nearly 60 per cent of India's exports and imports.

SUMMARY

- Balance of trade is defined as the difference between the value of goods sold to foreigners by the residents and firms of the home country and the value of goods purchased by them from foreigners.
- Balance of current account includes balance of services (Visible and invisible services) and balance of unilateral transfers (gifts, donations, grants etc.)
- Balance of payments on capital account includes balance of private direct investments, private portfolio investments and government loans to foreign governments.
- Balance of payments is the sum of balance of current account and capital account. Balance of payments must always balance in the book-keeping sense.
- While analysing the balance of payments in India we find that ever since the onset of economic reforms, there has been considerable improvements in exports, imports, foreign exchange reserves and foreign direct investment.



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- India's current account position during the present years continued to reflect the impact of the global economic down turn and deceleration in world trade.
 - India now has well diversified trade. Asia and ASEAN have become important trade partners of India compared to European countries and USA.



CHAPTER – 6

SELECT ASPECTS OF INDIAN ECONOMY

Unit 8

External
Debt



Learning Objectives

At the end of this unit, you will be able to:

- ◆ understand the types of external assistance received by India.
- ◆ know the changes that have taken place over the years in the structure of external assistance received by India.

8.0 EXTERNAL DEBTS IN INDIA

Since no country is self-sufficient, it has to rely on other countries and international organizations for financial assistance. This is especially true for a developing country which is on the path of development. It needs funds for its various developmental projects. India is no exception. Ever since Independence it has relied on other countries for external assistance. External assistance to India has been in two forms – grants and loans. While grants do not involve any repayment obligation, loans carry an obligation to pay interest and repay the principal. About 90 per cent of the external assistance received by India has been in the form of loans. These loans have been from different sources like World Bank, International Monetary Fund (IMF), International Development Association, U.S.A., U.K., Japan, etc. A large part of the loan, especially from multilateral and bilateral agencies has high degree of concessionability i.e., grant element of at least 25 per cent. The share of concessional debt in total debt at December - end 2013 was about 10.5 per cent. At one time (1980-81) it was as high as 75 per cent.

India's external debt amounted to ₹ 13,470 crore at the end of March 1981. As liberal use of borrowing has been made ever since then, the external debt stood at more than ₹ 4,80,000 crore at end March 2013 and more than ₹ 22,00,000 crore at end March, 2013.

As per cent of GDP, India's external debt was 11.7 per cent at end March 1991; it became 21 per cent at end March 2013 and 23 per cent at end March 2013. Debt service ratio i.e. the ratio of gross debt service payments less than (principal and interest) to external current receipts was as high as 35.3 in 1990-91; it declined to 13.7 per cent in 2001-02 and further to about 6 percent in 2012-13.

As per the world Bank, among the top 15 debtor countries of the world, India improved its rank from third debtor after Brazil and Mexico in 1991 to ninth in 2001. Its ranks however, increased to third after China and Brazil in 2012. It means that India was the third most indebted country in 2012.

It needs to be also recognized that the debt service ratio (ratio of principal and interest to total exports) for India remains high by international standards. Besides, India's exports of goods and services as a percentage of GDP(2012-13). works out to be around 25 per cent (World Bank). This ratio which represents the potential capacity of the nation to service external debt, being relatively low, makes India vulnerable to external shocks. This, therefore, underscores the need for sustaining the growth in exports and invisibles.

SUMMARY

- External assistance can be divided into two parts grants and loans.
- Grants do not involve any repayment obligation.
- Loan carries an obligation to pay interest and the principal.
- India has received the external assistance mostly (around 90%) in the form of loans.
- India's external debt amounted to ₹ 13,370 in March 1981 and increased to ₹ 4,80,000 in March 2002 and further increased to ₹ 22,00,000 in March 2013.
- Among the top 15 debtor countries of the world, India occupied third place in 2012.

MULTIPLE CHOICE QUESTIONS

1. What is India's rank in world population?
 - a. First.
 - b. Second.
 - c. Third.
 - d. Fourth.
2. The annual addition to India's population is almost equal to the total population of
 - a. Bangladesh.
 - b. Australia.
 - c. Japan.
 - d. China.
3. In which state is the sex ratio most favourable to women?
 - a. Andhra Pradesh.
 - b. Uttar Pradesh.
 - c. Kerala.
 - d. Karnataka.
4. Which year is known as year of great divide for India's population?
 - a. 1991.
 - b. 2001.
 - c. 1981.
 - d. 1921.
5. In which state/union territory is the literacy rate highest?
 - a. Delhi.
 - b. Chandigarh.
 - c. Karnataka.
 - d. Kerala.



6. India's passing through the _____ stage of demographic transition.
 - a. Fourth.
 - b. Third.
 - c. First.
 - d. Second.
7. In the theory of demographic transition in the last stage,
 - a. Birth rate rises, death rate rises.
 - b. Birth rate rises, death rate falls.
 - c. Birth rate falls, death rate rises.
 - d. Birth rate falls, death rate falls.
8. Which of the following statements is correct?
 - a. India's population is second largest in the world.
 - b. India is still passing through first stage of demographic transition.
 - c. More people in a country always mean more economic trouble for the country.
 - d. None of the above.
9. India's present population is (2011).
 - a. Between 50-60 crore.
 - b. Between 60-70 crore.
 - c. Between 70-80 crore.
 - d. Above 120 crore.
10. India accommodates nearly _____ per cent of world's population.
 - a. 10.
 - b. 50.
 - c. 17.5.
 - d. 45.
11. Over the years, birth rate in India has _____ and death rate has _____.
 - a. Fallen, fallen.
 - b. Risen, fallen.
 - c. Risen, risen.
 - d. Fallen, risen.
12. The birth rate in India is high because of
 - a. Predominance of agriculture.
 - b. Slow urbanisation.
 - c. High incidence of poverty.
 - d. All of the above.

SELECT ASPECTS OF INDIAN ECONOMY

13. Which of the following statements is correct?
- Gini coefficients are often used for measuring poverty in relative sense.
 - When poverty is related to the distribution of income or consumption expenditure, it is absolute poverty.
 - In India, we mainly use the concept of relative poverty for measuring poverty.
 - None of the above.
14. Identify the incorrect statement.
- The problems of poverty and unemployment are inter-related.
 - The problem of poverty has been solved in India.
 - Growing population has also contributed to the problem of poverty in India.
 - None of the above.
15. SJSRY stands for
- Swarna Jayanti Shahari Rozgar Yojana.
 - Shahari Jeewan Sudhar Rashtriya Yojana.
 - Sampoorna Jeewan Shahari Rozgar Yojana.
 - None of the above.
16. If revenue receipts is 50 crores, loan recoveries are 20 crores and total expenditure is 100 crores, what is Fiscal Deficit?
- 50 crores
 - 80 crores
 - 30 crores
 - 40 crores
17. A situation of employment in which a person is apparently employed but his contribution to the production is almost nil is called _____ unemployment.
- Structural.
 - Chronic.
 - Disguised.
 - Cyclical.
18. _____ unemployment may result when some workers are temporarily out of work while changing job.
- Cyclical.
 - Voluntary.
 - Frictional.
 - Seasonal.



19. According to _____ measure, a person is said to be employed for the week even if he is employed only for a day during the week.
- Usual status.
 - Current weekly status.
 - Current daily status.
 - Current yearly status.
20. _____ measure estimates the number of persons who may be said to be chronically unemployed.
- Usual status.
 - Current weekly status.
 - Current daily status.
 - Current yearly status.
21. When due to introduction of new machinery, some workers tend to be replaced by machines, their unemployment is termed as _____.
- Structural.
 - Technological.
 - Mechanical.
 - Seasonal.
22. Every _____ person in the world is an Indian.
- Second.
 - Third.
 - Sixth.
 - Tenth.
23. _____ measure generally gives the lowest estimate of unemployment especially for poor economy.
- Usual status.
 - CWS.
 - CDS.
 - CMS.
24. Most of the unemployment in India is _____.
- Voluntary
 - Structural
 - Frictional
 - Technical

25. According to the Planning Commission, using Mixed Recall period (MRP) almost _____ per cent people were below poverty line in 2011-12.
- 42 per cent
 - 26 per cent
 - 37 per cent
 - 22 per cent
26. Work force refers to that part of:
- Labour force which is employed.
 - Population which is unemployed.
 - Population which is forced to work.
 - Labour force which is unemployed.
27. According to National Sample Survey Organisation (NSSO) during 2011-12:
- The unemployment rates according to the CDS approach is 6.5%.
 - The unemployment rates according to the CDS approach is 5.6%.
 - The unemployment rates according to the CDS approach is 7.7%.
 - None of the above.
28. According to the National Sample Survey Organisation (NSSO) during 2011-12:
- unemployment rates on the basis of current daily status were same as those on the basis of usual status.
 - unemployment rates on the basis of current daily status were higher than those on the basis of usual status.
 - unemployment rates on the basis of current daily status were lower than those on the basis of usual status.
 - none of the above.
29. At present, nearly _____ per cent of the energy consumed is obtained from non-commercial traditional sources.
- 45.
 - 51.
 - 22.
 - 10.
30. The highest user of commercial energy is
- agriculture.
 - transport.
 - household.
 - industry.



31. In terms of generation of power _____ 's contribution, is the maximum.
- hydel.
 - nuclear.
 - thermal.
 - others.
32. NTPC stands for
- National Thermal Power Corporation.
 - National Tidal Power Corporation.
 - National Theological Power Corporation.
 - National Talent and Potential Corporation.
33. _____ measures the operational efficiency of a thermal plant.
- Power load factor.
 - Power leakage factor.
 - Plant load factor.
 - Plant leakage factor.
34. According to the latest data (2012-13) PLF is lowest in
- southern region.
 - northern region.
 - western region.
 - eastern region.
35. Considering State Electricity Boards (SEBs) central sector and private sector, PLF is lowest in _____. (2012-13)
- central sector.
 - SEBs.
 - private sector.
 - both for SEBs and private sector.
36. Electricity generated from radio active elements is called
- thermal electricity.
 - atomic energy.
 - hydel electricity.
 - tidal energy.
37. Which of the following statements is correct?
- The demand and the supply of fuel are almost equal.
 - Our import bill on account of oil has been decreasing since 1990.
 - Oil prices have been decreasing since 1973.
 - Transmission and distribution losses of power companies are very high.

SELECT ASPECTS OF INDIAN ECONOMY

38. Which of the following statements is incorrect?
- The Indian road network is *one of the longest networks* in the world.
 - The rural road network connects around 65 per cent of all weather roads.
 - Most of the State Road Transport Corporations are running on profits.
 - The National highways carry more than 40 per cent of the total road traffic.
39. If Budgetary Deficit is nil, borrowings and other liabilities are 70 crores, what is the amount of Fiscal Deficit?
- Nil
 - 30 crores
 - Can't say
 - 70 crores.
40. Of the major 12 ports, _____ has been the top traffic handler for the last five years.
- Paradip.
 - Cochin.
 - Kandla.
 - Mumbai.
41. Indigo and Kingfisher are examples of
- private schools.
 - private airlines.
 - private ships.
 - private railways.
42. Our postal network is _____ in the world.
- the largest network.
 - fifth smallest.
 - tenth largest.
 - tenth smallest.
43. On an average, one post office in India serves _____.
- 100 persons.
 - 1000 persons.
 - 7175 persons.
 - 5800 persons.
44. If in a population of 1000 people, 400 people are in the labour force, 392 are employed, what is the unemployment rate?
- 2 per cent.
 - 8 per cent.



- c. 6 per cent.
d. 4 per cent.
45. Who is regulatory authority for telecom in India?
a. SEBI.
b. TRAI.
c. MTNL.
d. BSNL.
46. Over the years, the incidence of malaria (cases in million) has _____.
a. reduced
b. increased.
c. remained the same.
d. doubled.
47. Over the years, the number of polio cases has
a. increased.
b. reduced.
c. remained the same.
d. doubled.
48. NLM stands for
a. National Leprosy Mission.
b. National Logistic Mission.
c. National Literacy Mission.
d. National Law Mission.
49. IIM stands for
a. Indian Institute of Marketing.
b. Indian Institute of Manpower planning.
c. Indian Institute of Management.
d. International Institute of Management.
50. When too much money chases too few goods, the resulting inflation is called _____.
a. deflation.
b. demand-pull inflation.
c. cost-push inflation.
d. stagflation.
51. The combined phenomenon of stagnation and inflation is called _____.
a. demand-pull inflation.
b. cost-push inflation.

SELECT ASPECTS OF INDIAN ECONOMY

- c. money inflation.
 - d. stagflation.
52. When prices are falling continuously, the phenomenon is called _____.
- a. inflation.
 - b. stagflation.
 - c. deflation.
 - d. reflation.
53. When the government tries to meet the gap of public expenditure and public revenue through borrowing from the banking system, it is called _____.
- a. deficit financing.
 - b. debt financing.
 - c. credit financing.
 - d. none of the above.
54. _____ is the difference between total receipts and total expenditure.
- a. Fiscal deficit.
 - b. Budget deficit.
 - c. Revenue deficit.
 - d. Capital deficit.
55. If borrowings and other liabilities are added to the budget deficit we get _____.
- a. revenue deficit.
 - b. capital deficit.
 - c. primary deficit.
 - d. fiscal deficit.
56. FRBM Act stands for
- a. Fiscal Revenue and Budget Management.
 - b. Foreign Revenue and Business Management.
 - c. Fiscal Responsibility and Budget Management.
 - d. Foreign Responsibility and Budget Management.
57. _____ is a systematic record of all the economic transactions between one country and rest of the world.
- a. Balance of trade.
 - b. Balance of transactions.
 - c. Budget.
 - d. Balance of payments.



58. If India export goods worth Rs. 20 crores and imports goods worth Rs. 30 crores, it will:
- Have a surplus of Rs. 10 crores in balance of trade.
 - Have a deficit of Rs. 10 crores in balance of trade.
 - Have a deficit of Rs. 50 crores in balance of trade.
 - Can't say.
59. The share of concessional debt in total external debt of India has
- remained the same.
 - doubled.
 - reduced.
 - increased.
60. About _____ per cent of the external assistance has been in the form of loans.
- 40.
 - 30.
 - 10.
 - 90.
61. Among all the states, _____ has the lowest birth rate of and _____ has the highest birth rate (2012).
- Kerala, Bihar
 - West Bengal, Uttar Pradesh
 - Kerala, West Bengal
 - Kerala, Bihar
62. Considering death rate, _____ has the lowest death rate and _____ has the highest death in 2012.
- Kerala, Uttar Pradesh
 - West Bengal, Maharastra, Orissa
 - Madhya Pradesh, West Bengal
 - Kerala, Orissa
63. Which state has the lowest life expectancy at birth?
- Kerala
 - Bihar
 - Madhya Pradesh
 - Uttar Pradesh
64. Infant Mortality Rate is highest in _____. (2010)
- A.P
 - M.P.
 - Bihar
 - Kerela

SELECT ASPECTS OF INDIAN ECONOMY

65. India is the world's _____ largest energy producer.
- fifth
 - second
 - sixth
 - first
66. India is the world's _____ largest energy consumer.
- second
 - seventh
 - first
 - fourth
67. Almost _____ per cent of India's global merchandise trade is carried through the sea route.
- 95
 - 65
 - 80
 - 55
68. Which of the following is an intangible item in balance of payments statement?
- Export of food grains
 - Import of crude oil.
 - Banking services provided in other countries.
 - Import of steel by steel industry.
69. Which of the following statement deals with debts and claims of a country?
- Balance of capital account.
 - Balance of trade account.
 - Balance of current account
 - Balance of services.
70. India had a current account surplus for three successive years. These are:
- 2009-12
 - 2001-04
 - 2005-08
 - 1990-93
71. _____ account for nearly 60 percent of India's foreign trade.
- Asia and ASEAN
 - EU
 - North America
 - South America



72. POL imports constitute nearly — of India's imports (money terms)
- 10%
 - 37%
 - 50%
 - 80%
73. Among the top 15 debtor countries of the world, India is ranked at —. (2012)
- tenth
 - fifteenth
 - Third
 - ninth
74. As per cent of GDP, India's external debt is about — per cent. (March 2012)
- 10
 - 15
 - 12
 - 23
75. India's debt service ratio is —.
- 11.5
 - 6
 - 30.5
 - 10
76. Sex ratio refers to the numbers of females per — males
- 100
 - 300
 - 1000
 - Non of the above
77. Which state shows are lowest infant mortality rate in India?
- Uttar Pradesh
 - Andhra Pradesh
 - Kerala
 - Tamil Nadu
78. Which of the following is not a current account transaction?
- Exports
 - Insurance
 - Dividend
 - External Commercial Borrowings

SELECT ASPECTS OF INDIAN ECONOMY

79. 'Pradhanmantri Bharat Jodo' pariyojana is related to :
- a. Communication
 - b. Social Integration
 - c. Linking of rivers
 - d. Development of highways
80. India's telephone network is _____ in the world
- a. second largest
 - b. smallest
 - c. largest
 - d. third largest

ANSWERS

1.	b	2.	b	3.	c	4.	d	5.	d	6.	d
7.	d	8.	a	9.	d	10.	c	11.	a	12.	d
13.	a	14.	b	15.	a	16.	c	17.	c	18.	c
19.	b	20.	a	21.	b	22.	c	23.	a	24.	b
25.	d	26.	a	27.	b	28.	b	29.	c	30.	d
31.	c	32.	a	33.	c	34.	d	35.	b	36.	b
37.	d	38.	c	39.	d	40.	c	41.	b	42.	a
43.	c	44.	a	45.	b	46.	a	47.	b	48.	c
49.	c	50.	b	51.	d	52.	c	53.	a	54.	b
55.	d	56.	c	57.	d	58.	b	59.	c	60.	d
61.	a	62.	b	63.	c	64.	b	65.	c	66.	d
67.	a	68.	c	69.	a	70.	b	71.	a	72.	b
73.	c	74.	d	75.	b	76.	c	77.	c	78.	d
79.	d	80.	a								